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DECLINING YOUTH WELL-BEING IN 167 UN COUNTRIES.  
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Working Paper 33415  
<http://www.nber.org/papers/w33415>

NATIONAL BUREAU OF ECONOMIC RESEARCH  
1050 Massachusetts Avenue  
Cambridge, MA 02138  
January 2025

I would like to thank the United Nations for financial support. The views expressed herein are those of the author and do not necessarily reflect the views of the National Bureau of Economic Research.

The author has disclosed additional relationships of potential relevance for this research. Further information is available online at <http://www.nber.org/papers/w33415>

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Declining Youth Well-being in 167 UN Countries. Does Survey Mode, or Question Matter?

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NBER Working Paper No. 33415

January 2025

JEL No. I31, I38

### **ABSTRACT**

I find evidence from 167/193 UN member countries that the young have lower levels of well-being than older age groups, using self-reported data collected on the internet from the Global Minds internet-based surveys of 2020-2024 using their MHQ measure. We found that the evidence on the mental health of the young was different when self-reported, internet-based responses were used compared with those obtained via an interviewer, either face-to-face or via the telephone. Our analysis of the United States using 14 surveys taken using all three methods always found the young had the lowest well-being of any age group. The evidence for relatively low youth well-being on we collected using four major European surveys was stronger in internet-based surveys and when negative affect variables rather than life satisfaction and happiness were used. The young were significantly more lonely and more unhappy than all other age group, in 26/27 EU member countries in the internet-based EU Loneliness Survey of 2022. We also examined the Global Flourishing survey of 2022-2024 across 22 countries that used both telephone and web-based surveys and the results showed rising well-being in age, in the internet surveys and declining well-being in age in the telephone surveys. Mode of survey and question used matters. The young are experiencing a mental health crisis globally picked up especially in self-reports. This is new.

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*“The youth mental health crisis has existed for decades”*  
Janet Currie, AEA Presidential Address, 2025.

Declining youth mental health is a global phenomenon that has emerged in the last ten years and has not “existed for decades”.

In the forty-year period from around 1980 through 2020 there was evidence from a literature of over 600 published papers that there was a U-shape in age in well-being and a hump-shape in ill-being (Blanchflower, Graham and Piper, 2023). That U-shape existed in 145 countries (Blanchflower, 2021). That is to say that the young were particularly happy and there was a mid-life crisis such that those around age fifty were the least happy. Mid-age is still the peak for deaths of despair, from drug overdoses, suicide and alcohol poisonings, that Case and Deaton called ‘deaths of despair’. In the last decade that has all changed.

From midlife wellbeing then rose. Hudomiet, Hurd and Rohwedder (2021) documented in later life there was a mortality selection bias because at age 65 happiness predicted longevity. Once that selection was corrected for happiness declined, driven particularly by deaths of spouses and ill-health in the final three years of life. That was in the past and then smartphones came along. And everything started changing from around 2013. The trends started prior to COVID and were exacerbated, but were not caused, by it. Smart phone usage exploded in the years since 2013 and seems the primary candidate for a crisis that started in 2013, is global and disproportionately impacted the young in general and young women in particular.

In the years since 2020 it seems that the U-shape is fast disappearing globally. Blanchflower, Bryson and Xu (2024) first showed that in the US and the UK. There is now a good deal of evidence from around the world that the U-shape has gone and has now been replaced by a linear rise in well-being in age and a linear decline in ill-being. Examples of this are Botha et al (2023) for Australia, Thorisdottir et al (2021) for Iceland, Krokstad et al (2022) for Norway, Blanchflower, Bryson, Lepinteur and Piper (2024) for France, Germany, Italy, Spain and Sweden, Garriguet (2021) for Canada and Rausch and Haidt (2023) for the USA, UK, Canada, Australia and New Zealand. Blanchflower and Bryson (2024a, 2024b, 2024c) report evidence for Latin America, Africa and Eastern Europe respectively. Twenge and Blanchflower (2024) report comparable evidence for six English speaking countries.

In what follows we examine well-being and ill-being data on the UN’s 193 member countries and find that an age 18-24 dummy in a well-being equation is significantly negative in 167 of them. We examine both positive and negative affect questions and in particular focus on survey mode. That is whether the survey responses are obtained are self-administered or interviewer administered either face-to-face or via the telephone. It does not seem to matter which method is used in a number of countries including Canada, Denmark, Iceland, Ireland, Netherlands, New Zealand, Norway, Sweden, Switzerland, the UK (see Twenge and Blanchflower, 2024; Blanchflower and Bryson and Xu, 2024). That is especially the case in the US, where every survey no matter what mode was used shows declining youth well-being in the last decade. We also consider whether it matters what question is used, whether positive or negative affect. It turns out it does not. This is where we start.

## 1. Myths that are not Myths

The evidence of a worsening mental health of the young is increasingly apparent around the world and especially so in the United States where the evidence is indeed overwhelming. Claims of a burgeoning youth mental health crisis are not without its critics.<sup>1</sup> The debate between Janet Currie, the outgoing president of the American Economic Association (AEA) and other researchers is illustrated in her January 4<sup>th</sup>, 2025, AEA presidential address. Professor Currie suggested that no such crisis exists - in the United States primarily - as a youth mental health crisis “*has been around for decades*”.<sup>2</sup> That is simply not true, as we will show below, both in the US and globally.

Professor Currie also claimed, in her **Myth #1**, that “*there has been a rapid deterioration in child mental health.*”<sup>3</sup> No myth: there has been rapid deterioration globally in the mental health of those under age 25, since around 2013, as documented by Rausch and Haidt (2023).<sup>4</sup> We present evidence below showing that everything is worse now, including every survey we can find for the US that all show the same thing. There is a burgeoning youth mental health crisis in the US and around the world, and especially in English speaking countries (Twenge and Blanchflower, 2025).

As we show below, the evidence is clearly to the contrary, both in the US and globally. The mental health of the young has worsened sharply recently. There is evidence, in particular, that young women have had bigger rises in mental ill-health than men. Some have attributed this rise to the increased use of smart phones (Haidt, 2024a, b, Twenge & Martin, 2020 and Twenge, Martin & Campbell, 2018). In part this is because of the rapid rise in mental ill-health of the young which starts around 2013 as the use of smart phones exploded. This seems unlikely to be of much value to explain a global crisis that has had broadly the same growth path around the world. What happens in New Jersey has zero correlation on what happens in Tanzania, Italy, Sweden, Australia and Canada. Also, it is unclear why measurement and incentives would be different among the young than the middle-age or the old or for girls more than boys.

Currie claims in her **Myth #2** that “*trends in suicide rates move in lockstep with other mental health measures*”. No myth. It seems they do, in the US and several other advanced countries including Australia and the UK, but admittedly not yet in the European Union. **Chart 1a** and **Chart 1b**, based on data from the CDC suggest that suicide rates have ticked up as mental health worsened: mortality and morbidity tracked one another.<sup>5</sup> **Chart 1a** simply plots suicide rates /100000 deaths for males ages 15-24 versus those age 45-64. **Chart 1b** does the same for females. The trend for the young is up and especially so since around 2007 for males and 2013 for females. In contrast the rates for ages 45-64 have fallen since around 2012 for males and 2015 for females. In fact, since 2015 suicide rates for males and females ages 10-14 and 15-24 are up but are down

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<sup>1</sup> Candice Odgers (2024), for example, has claimed that the evidence is equivocal on whether screen time is to blame for rising levels of teen depression and anxiety, and claims without evidence that this is potentially due to social ills such as racism, economic hardship, and the lingering impact of the 2008 Global Financial Crisis and its disparate impact on children in low SES families. She questions causality just as does tobacco companies did about smoking. She does accept, though that “we have a generation in crisis”. Haidt (2024b) responded.

<sup>2</sup> <https://www.aeaweb.org/webcasts/2025/aea-presidential>

<sup>3</sup> <https://www.aeaweb.org/webcasts/2025/aea-presidential>

<sup>5</sup> <https://www.cdc.gov/nchs/data/databriefs/db464-tables.pdf> and Matthew F. Garnett and Sally C. Curtin (2023), ‘Suicide Mortality in the United States, 2001–2021’, NCHS Data Briefs, 04/13/2023 <https://dx.doi.org/10.15620/cdc:125705>

for ages 25-34; 45-64; 75-84 and 85+ for both genders.<sup>6</sup> So Myth # 2 is clearly not a myth in the US at least.

Corredor-Waldron and Currie (2024) recently claimed, based on work in New Jersey that any rise in mental health of the young is apparently about changes in screening and coding. They also claim it may be driven by reductions in stigma, but as they note this would likely have gradual rather than sudden effects. It is also unclear why it would apply to teens rather than older age groups or to young women especially. It is unclear how their findings generalize to any other US state or to Peru, Norway, Australia, Zimbabwe, or, the Yemen.

Ormiston Lawrence and Sulley et al (2024) note that adolescent suicide in the US “*is an increasing public health problem as rates for all assessed suicide methods increased from 1999 to 2020*”. Marcotte and Hansen (2023) argue that “*among those under 25, nearly all the increase in suicide mortality during the 2010s can be explained by an increase in the prevalence of depression.*” Arnon et al (2022) report much higher rates of suicidal behavior among adolescents who had been victims of cyberbullying. Bommersbach et al (2023) examined the National Hospital Ambulatory Medical Care Survey, an annual cross-sectional national sample survey of emergency departments. They argued that “*another age group that demonstrated a disproportionately large rise in visits for suicide attempts was females ages 15–20*”. The authors found that the weighted number of emergency department visits for suicide attempts or intentional self-harm for young people rose sharply over the period 2011-2020 and especially so for young women. The numbers below are for ages 15-20 per 100,000 persons

	2011-2012	2013-14	2015-16	2017-18	2019-20
Females	546	534	964	1380	2338
Males	357	439	1075	1019	787

There is less evidence that suicide rates of the young in the rest of the world have risen (Bertuccio et al, 2024). In the UK though suicide rates of the young have also risen – from 7.7 per 100,000 in 2017 to 11.0 in 2021 and 10.1 in 2022.<sup>7</sup> For ages 45-49 they fell from 17.0 to 14.9 over these years.<sup>8</sup> Leigh and Robson (2024) and note that in Australia Over the period from 2007-2010 to

<sup>6</sup> Estimates by the six age groups are as follows

<b>Males</b>	<b>10-14</b>	<b>15-24</b>	<b>25-44</b>	<b>45-64</b>	<b>65-74</b>	<b>75+</b>
2015	2.4	19.4	25.2	29.5	26.2	38.7
2019	3.1	22.0	28.0	29.9	26.4	39.9
2020	3.6	22.4	28.3	27.3	24.7	40.5
2021	3.2	23.8	30.0	27.1	26.1	42.2
<b>Females</b>	<b>10-14</b>	<b>15-24</b>	<b>25-44</b>	<b>45-64</b>	<b>65-74</b>	<b>75+</b>
2015	1.6	5.3	7.5	10.2	5.7	4.5
2019	2.0	5.5	7.4	9.6	5.9	4.3
2020	2.0	5.8	7.2	7.9	5.6	3.9
2021	2.3	6.1	7.4	8.2	5.6	4.4

<sup>7</sup>

<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/suicidesintheunitedkingdom/2022registrations>

<sup>8</sup> Slee, Nazareth, Freemantle and Horsfall (2021) examined incidence rates of generalized anxiety diagnoses and symptoms from 795 UK general practices contributing to The Health Improvement Network (THIN) database between

2019-2022, the rate of self-harm hospitalizations of young people rose by 35 percent. The suicide rate among young people rose by 34 percent. There is data from the WHO of increases in deaths from self-inflicted injury rates/100000, from 2013 in Australia, Japan, South Korea, the Netherlands, the UK and the USA for ages 15-19 and ages 20-24.<sup>9</sup> The evidence for Europe is that suicide rates of the young have declined (Okubo et al, 2025).

In the United States, we see evidence from *every* major data file and every survey mode that suggests the mental health of the young has worsened. This is present using a large number of different measures including both positive and negative affect. The US Household Pulse Surveys and Healthy Minds and the OECD’s PISA survey for 15-year-olds and 16-year-olds, the Youth Risk Behavior Surveys, Global Minds and Global Flourishing Surveys for the US for example are web based and self-administered. The Gallup World Poll is face-to-face and telephone. The National Health Interview Survey uses face-to-face interviews. The Behavioral Risk Surveillance Survey is telephone based. The General Social Surveys uses web and telephone. The National Health and Nutrition Examination Survey was face-to-face but in 2020 changed to a mixed mode of telephone and internet. They all show the same thing.

The data is *unequivocal* – we report it from fourteen surveys below. We know of no other surveys showing anything different. We also show a dramatic rise in anti-depressant prescribing to young people pre-Covid. A good place to start is Udupa et al. (2023) who document findings from three surveys.

- a) *Behavioral Risk Factor Surveillance Survey* (BRFSS), 1993-2020. Evidence here is that days of bad mental health increased from a mean of 3 per month in 1993-199 to four per month in 2018-2020. The increase was most pronounced among young adults 18-25 which rose from 3.55 in 1993-1999 to 6.01 in 2018-2020.<sup>10</sup> In addition Blanchflower, Bryson and Xu (2024) documented a rapid rise, especially for the young, in the proportion of respondents who said that all thirty of the last 30 days were bad mental health days since around 2013.

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1998 and 2018. They found an upward trend for the young from around 1998 with an especially marked uptick from 2014 for young women.

<sup>9</sup> Age 15-19	Australia	Japan	South Korea	Netherlands.	UK	USA
2013	10.5	7.6	7.9	5.1	3.3	8.0
2017	11.1	7.8	7.2	6.7	4.2	11.7
2020	11.9	11.4	10.4	5.2	4.9	10.4
2021	10.2	11.5	11.0	4.1		11.0
2022	8.2			6.3		
Age 20-24						
2013	12.7	20.9	14.5	8.3	6.6	13.7
2017	14.8	17.8	13.3	8.2	6.8	16.4
2020	16.7	21.0	19.6	9.0	8.8	17.3
2021	15.7	21.8	20.4	10.1		18.9
2022	14.8			10.3		

<https://ourworldindata.org/grapher/suicide-rates-among-young-people-who-mdb?tab=table>

<sup>10</sup> See also Blanchflower, Bryson & Xu (2024).

- b) *National Health Interview Survey* (NHIS), 1997-2018, which included a Kessler-6 multi-item measure of mental distress, including symptoms of sadness and worthlessness.<sup>11</sup> Mean scores rose from 2.54 to 3.04 for ages 18-25 from 2010-2014 compared with 2.54 to 2.88 for ages 26-49 and 2.47 to 2.77 for ages 50+. See also Blanchflower and Bryson (2024a).
- c) *National Health and Nutrition Examination Study* (NHANES), included the PHQ-9, a measure designed to screen for symptoms of depression experienced in the last two weeks.<sup>12</sup> Mean PHQ-9 rose from 3.02 in 2013-14 for those age 18-25 to 3.62 in 2017-2020 versus 3.01 to 3.2 for those ages 26-49 and declined from 3.3 to 3.05 for those ages 50+.
- d) *The National Survey of Drug Use and Health* (NSDUH). Twenge et al (2019) found with these data that the rate of individuals reporting symptoms consistent with major depression in the last 12 months increased 52 percent in adolescents 12-17 from 2005 to 2017 (from 8.7 percent to 13.2 percent) and 63 percent in young adults ages 18 to 25 from 2009 to 2017 (from 8.1 percent to 13.2 percent). Haidt, Rausch and Twenge (2024). report data on the proportion of boys and girls ages 12-17 with at least one major depressive episode over the past year which has more than doubled since 2012. The rise has not been going on for decades, it dates to around 2012.

	2004	2008	2012	2016	2020	2021	2022
Boys	5	4	5	6	9	12	12
Girls	13	13	14	19	25	30	28

Twenge and Blanchflower (2025) examined life satisfaction and happiness data from two other US surveys.

- e) *American National Election Studies*, (ANES) 2008-2020. 5-step life satisfaction for those ages 18-25 fell from 3.45 in 2012 to 3.27 in 2020. This compared with *increases* for all other age groups.
- f) *General Social Surveys*, (GSS), 2006-2022. 3-step happiness data fell from 2.17 in 2012-14 to 1.9 in 2021-2022 for those ages <25. This compares with 2.2 to 1.98 for ages 25-34; 2.19 to 2 for ages 35-44; 2.15 to 1.98 for 45-54; 2.14 to 1.96 for 55-64; 2.17 to 2 for 65-74 and 2.17 to 1.99 for ages 75-80 for these years.

Blanchflower and Bryson (2024a) reported on two further US surveys.

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<sup>11</sup> Participants were asked, “During the PAST 30 DAYS, how often did you feel ... \_1) so sad that nothing could cheer you up, 2) nervous, 3) restless or fidgety, 4) hopeless, 5) that everything was an effort, 6) worthless. Response choices were recoded as: “all of the time” = 4, “most of the time” = 3, “some of the time” = 2, “little of the time” = 1, and “none of the time” = 0. The possible range of scores on the K6 was 0–24. Scores of 13 and over indicate serious mental distress and scores of 5 and over indicate moderate or serious mental distress.

<sup>12</sup> The items are based on the DSM criteria for major depressive episode and include symptoms such as “little interest or pleasure in doing things “feeling down, depressed, or hopeless,” “trouble concentrating on things,” and “thoughts of being better off dead”. Scores can range from 0 to 27, with scores above 10 indicating moderate or severe depression

- g) *Healthy Minds (HM)*, 2007-2023. College students were asked. “Over the last two weeks how often have you been bothered by any of the following problems? Feeling down, depressed or hopeless? The responses were 1= Not at all, 2=Several days; 3=More than half; 4= Nearly every day?”. In both 2010-11 and 2015-2016 for males the percent saying ‘more than half’ or ‘nearly every day’ was 14%. It had risen to 20% in 2022-2023. For females, in 2010-2011 =14%; 2015-2016=17% and 2022-2023=28%.<sup>13</sup>
- h) *Youth Risk Behavior Surveillance System (YRBS)*, 1999-2021 for high school students.<sup>14</sup> The percent who reported that they had been sad or hopeless every day for two weeks was as follows.

	Male	Female
2023	.28	.53
2021	.29	.57
2019	.27	.47
2017	.21	.41
2015	.20	.40
2013	.21	.39
2011	.21	.36
2009	.19	.34
2007	.21	.36
2005	.20	.37
2003	.22	.35
2001	.22	.35
1999	.21	.36

Currie reported these data in her talk but claimed they showed no recent rise in youth mental ill-health!

- i) *Gallup World Poll (GWP)*, 2021-2023. Data is available on Cantril life evaluation for the US using GWP data for 2006-2023. The weighted distributions are as follows. They show that life evaluation was U-shaped in age in the two prior periods and increases in age in the most recent data.

	2006-2011	2012-2018	2019-2023
18-24	7.55	7.20	6.56
25-34	7.10	6.94	6.63
35-44	7.05	7.03	6.66
45-54	7.05	6.95	6.84
55-64	7.41	7.05	6.93
65-74	7.63	7.45	7.47
75-84	7.68	7.59	7.71
85+	7.25	7.56	7.63
N	6,226	10,196	4,013

<sup>13</sup> See also Lipson et al (2022)

<sup>14</sup> See also Verlenden, Fodeman, Wilkins et al. (2024).



- j) *Global Flourishing Study (GFS), 2022-2024* was used by Lomas et al (2024) to calculate, using the internet, well-being in the US using the 11-step cantril, life satisfaction ladder and found it rose in age as follows - 18-24=6.18; 25-29=6.18; 30-39=6.51; 40-49=6.70; 50-59=7.04; 60-69=7.45; 70-79=7.79; ≥80=7.90 (n=38,312).
- k) *Global Minds (GM), 2020-2024* is an internet-based survey. Bala, Newson and Thiagarajan (2024) develop and use the so-called MHQ score as a measure of positive affect. This also rises in age for the US- 18-24=25; 25-34=45; 35-44=57; 45-54=65; 55-64=83; 65-74=106; 75-84=122; ≥80=126 (n=109,413).
- l) *US Household Pulse Surveys, 2020-2024*. This is a 20-minute online survey that has been conducted since 2020 – with the first survey in April 23-May 5<sup>th</sup>, 2020.<sup>15</sup> In total we pool together 73 surveys though July 23-August 19<sup>th</sup>, 2024, for a total of just over 4.5 million observations. We use four negative affect 4-step variables – worry, anxiety, down and depressed and lack of interest - used previously in Blanchflower and Bryson (2022, 2023). It is clear in **Table 1** from all four of these variables illustrates that ill-being in the US declines, roughly linearly in age, in the years 2020-2024. Those age <25 have the worst mental health.
- m) *National Survey of Children’s Health, 2016-2020*. This is a survey of randomly selected children from birth to age 17 years. Lebrun-Harris et al (2022) found evidence that over the period 2016-2020 there were pre-Covid “*increases in anxiety and depression were evident before the onset of the pandemic (2016-2019), with modest but statistically nonsignificant continuations of these trends in 2020*”. They also reported decreases in physical activity.
- n) *Sapien Labs (2025)* in a new report have examined the youth MHQ score from the Global Minds project and found that 56% of those age 13-17 years have MHQ scores in the distressed or struggling range. This was more evident for females than males. Over 50% of 13–17-year-olds indicated that feelings of sadness, guilt and anxiety caused them serious problems in their everyday life while debilitating unwanted strange thoughts and a sense of being detached from reality came in at 51% and 46%, respectively.
- o) *OECD PISA surveys of high school students aged 15, from 2015-2022*. Marquez et al (2024) noted the rapid decline in life satisfaction scores across 47 countries drawn from around the world, from the OECD’s PISA surveys of 15-year-olds.<sup>16</sup> These suggest an evolving global youth mental health crisis. Life satisfaction on a 10-step scale in the US fell from 7.36 in 2015 to 6.75 in 2018. In fact, there is evidence from many other countries,

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<sup>15</sup> <https://www.census.gov/programs-surveys/household-pulse-survey/data/datasets.html> with technical documentation here:

<https://www.census.gov/programs-surveys/household-pulse-survey/technical-documentation.html>.

<sup>16</sup> PISA uses this 11-step measure of life satisfaction: “*The following question asks how satisfied you feel about your life, on a scale from “0” to “10”. Zero means you feel ‘not at all satisfied’ and “10” means ‘completely satisfied’*”.

especially in Europe and Latin America that the recent decline in life satisfaction of those age 15 years is global.<sup>17</sup>

- p) *All-payer IQVIA Longitudinal Prescription Database* was analyzed by Chua et al, 2024. They found that the monthly anti-depressant dispensing rate for U.S. adolescents and young adults, for those ages 12-25 years increased by 66% from 2016 to 2022. Before March 2020, this rate increased by 17.0 per month. Between 2016 and 2022, the number of adolescents and young adults with  $\geq 1$  dispensed antidepressant prescription increased by 46.1%, from 4,633,433 to 6,768,106. “*Antidepressant dispensing to adolescents and young adults was rising before the COVID-19 outbreak and rose 63.5% faster afterward*”. This increase was driven by increased dispensing to females.

In addition, according to the 2022 National Healthcare Quality and Disparities Report, in the US from 2016 to 2019, the rates of emergency department visits with a principal diagnosis related to mental health only increased for ages 0-17 years, from 784.1 per 100,000 population to 869.3 per 100,000 population.<sup>18</sup> The rate for this age group dropped slightly in 2019, but in 2018, the rate was 976.8 per 100,000 population, a 25% increase from 2016.

Higher rates of depression result in higher usage of anti-depressant drugs, especially among women. Brody and Gu (2020) found for the US that during 2015–2018, 13.2% of adults aged 18 and over used antidepressant medications in the past 30 days. Use was higher among women (17.7%) than men (8.4%). Over the decade from 2009–2010 through 2017–2018, the percentage of adults using antidepressants increased. This rise in use was observed among women, but not men. Young people ages 20-24 in the US had the highest incidence of COVID. During the period 2020-2022 anxiety, depression and worry were also highest among those ages 20–24 (Blanchflower and Bryson, 2022).

**Chart 2** illustrates how the mental health of the young has worsened, contrary to the claims of Janet Currie. The data is for the USA using the BRFSS. It reports the proportion of respondents who reported that 30 of the last 30 days were bad mental health days, that we call *despair or extreme distress* (Blanchflower and Oswald, 2021).<sup>19</sup> Plots by ages 18-75 are presented for the periods 1993-2006 (n=2,605,468); 2006-2012 (n=2,638,513) and 2013-2020 (n=3,534,330) and 2021-2024 (n=1,303,977). It shows the hump-shape in the data with a peak in the early 50s using data for both the earlier periods, with the second being higher than the first. Similar patterns occurred

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<sup>17</sup> Marquez et al (2024) note that life satisfaction in the PISA surveys of high school students age 15 fell in 36/40 countries from 2015-2022, Austria; Brazil; Bulgaria; Chile; Colombia; Costa Rica; Croatia; Czechia; Dominican Republic; Estonia; Finland; France; Germany; Greece; Iceland; Ireland; Italy; Japan; Latvia; Lithuania; Macau, Mexico; Montenegro; Netherlands; Peru; Poland; Portugal; Qatar; Slovakia; Slovenia; Spain; Switzerland; Thailand, Turkey; Uruguay and UK - exceptions are Hong Kong, Hungary and Taiwan which had declines and South Korea was flat. They also reported declines in European countries in life satisfaction of 15-year-olds using HBRC data between 2013/14 and 2021/22 in 26 European countries - Armenia; Austria; Bulgaria; Croatia; Czechia; Denmark; Estonia; Finland; France; Germany; Greece; Iceland; Ireland; Italy; Latvia; Malta; Moldova; Netherlands; Norway; Poland; Portugal; Slovakia; Slovenia; Spain; Switzerland; UK plus Canada.

<sup>18</sup> <https://www.ncbi.nlm.nih.gov/books/NBK587174/>

<sup>19</sup> The question used is “*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?*”

in earlier years.<sup>20</sup> But by 2019-2022 the pattern had changed, and the left-hand side lifted as the young reported much higher levels of despair. Of note is that very little changed over these years for those over ages 45 or so. It seems very hard to argue on the bases of these data that “*the youth mental health crisis has existed for decades*”, given that despair rates have nearly trebled since 1993 – from 3.2% to 9.3% for females and from 2.5% to 6.6% for young males.

A similar change in life satisfaction can be seen using these data (see Twenge and Blanchflower, 2025). The evidence now suggests that rather than a hump shape in ill-being and a U-shape in well-being, happiness rises in age and unhappiness falls with age. A youth mental health crisis in the US has clearly not been around for decades. It makes no difference which survey we examine or the survey mode in the US, where the vast majority of people are internet connected, the answers are the same.

It is of note that the big worsening in the mental health of the young in the US and the UK appears to have started around 2013 or so. COVID appears to have extended existing trends. By 2020 the U-shape and hump-shape patterns that existed in happiness and unhappiness were clearly on the wane. By 2020 we observe in many data sources, especially internet based and self-administered that now wellbeing rises almost linearly in age. The patterns started in the English-speaking world and Northern Europe and appear to be spreading like a plague.

## 2. Global Evidence

The recent rapid decline in youth mental health is global. It is compelling in most negative affect data such as being depressed, nervous, anxious, lonely, in poor mental health. It is easier to see in positive affect variables such as satisfaction with relationships and things in life are worthwhile than it is in life satisfaction and happiness, for reasons uncertain. As we show below it is easier to find in internet-based surveys than it is in surveys with either by telephone or face-to-face. It is easier to see, for example, in self-administered responses to mental health questions than from those that are interviewer administered. As we note below there is a literature suggesting that people completing interviewer administered questionnaires are more likely to provide socially desirable responses than in self-administered, internet surveys. The issue is which is conveying the truth. We find the answers to be very different and the literature suggests we should trust, the self-reports.

As background there have been major problems in the years since COVID in response rates of many national surveys that are interviewer administered and consequently of their representativeness. For example, in the UK the Office of National Statistics has noted major problems with its main labor market survey – the Labour Force Survey – to such an extent that

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<sup>20</sup> Despair rates by gender for those ages 18-24 have risen rapidly since around 2015. The trends are broadly similar for females and males but with a higher rate for females. The 2023 survey includes some observations from early 2024 - The despair rates (%) for females with male rates in parentheses is below. 1993=3.2 (2.5); 1994=4.6 (2.8); 1995=4.2 (2.9); 1996=4.2 (2.4); 1997=4.3 (3.3); 1998=5.3 (2.8); 1999=3.6 (3.1); 2000=5.0 (3.5); 2001=5.1 (3.4); 2002=4.5 (4.1); 2003=5.2 (4.1); 2004=5.4 (4.1); 2005=5.6 (3.3); 2006 =5.8 (3.6); 2007=4.7 (3.8); 2008= 4.9 (3.0); 2009= 5.6 (2.9); 2010= 4.7 (3.3); 2011= 5.1 (3.5); 2012 5.9 (3.9); 2013= 6.0 (3.5); 2014= 5.1 (3.9); 2015= 5.5 (3.9); 2016= 6.5 (3.8); 2017= 6.9 (5.3); 2018= 8.9 (5.3); 2019= 8.7 (5.7); 2020= 8.2 (5.0); 2021= 9.6 (6.3); 2022= 10.8 (7.2); 2023/24= 9.3 (6.6).

they delayed publication of official data.<sup>21</sup> Response rates in 2023 were only 7% for those ages 16-24 vs 65% for those ages 65 and over (see their Table 1). In the Current Population Survey in the US, which samples with a combination of personal visits and phone, response rates have declined from 90.3% in January 2013 to 69.1% in December 2024.<sup>22</sup> In a study conducted by Pew Research non-response rates were higher among young people.<sup>23</sup>

It was especially hard to find evidence of declining mental health of the young in Africa, for example, where around half of the population have never used the internet (Blanchflower and Bryson, 2024c). The question we now address is what relationship is there between negative and positive affect and age in the years since Covid lockdowns in 2020 outside the US and the UK. It turns out that there is a good deal of evidence that the U-shape has disappeared in all 27 of the EU countries and a further fifteen countries we examine from Latin America, the Middle East and Asia and Oceania –Argentina, Australia, Brazil, Egypt, Hong Kong, India, Indonesia, Israel, Japan, Kenya, Mexico, Nigeria, Philippines, South Africa and Tanzania Mexico. Well-being now rises in age and ill-being declines in age.

In what follows we are going to examine evidence on mental health by age first from two surveys collected by the European Commission. The first is the Eurobarometer survey series that extends back to 1973 and then the EU Flash Barometer #520 from 2023 using various positive and negative affect measures. Third, we look at data from the European Social Survey, sweep 11 from 2023 on 20 EU member states plus Israel, Norway, Switzerland and the UK using three positive affect measures over the prior week – happiness, life satisfaction and trust - and four, negative affect measures - feeling depressed, sad, lonely and everything was an effort. Fourth, we then examine 27 EU member countries again from an EU Commission survey, the EU Loneliness Survey of 2023 again using several measures including being happy, lonely, nervous, depressed and thinking life was worthwhile. The evidence from both these surveys is that mental health improves with age. The data on positive affect less so.

We then turn to examine twenty-two countries from the Global Flourishing Surveys of 2022-2024, including four EU countries, which were partially sampled via the web and partially sampled by telephone. These are Argentina; Australia\*; Brazil; Egypt; Germany\*; Hong Kong\*; India; Indonesia; Israel; Japan; Kenya; Mexico; Nigeria; Philippines; Poland; South Africa; Spain\*; Sweden; Tanzania; Turkey; United Kingdom\* and the United States\*. Of these, those marked with \* were only sampled via the web and the rest had both methods. This matters as we show below.

We then compare results from face-to-face interviews versus those from telephone interviews from the Gallup World Poll, 2018-2023. We find few differences. Finally, we examine data from the internet based Global Minds Surveys of 2020-2024. We find evidence that an age 18-24 variable enters an MHQ well-being equation significantly negatively in 169/193 UN countries.

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<sup>21</sup> ‘Labour Force Survey performance and quality monitoring report: April to June 2023’, ONS, 15 August 2023. And Alex Lambert, ‘Transforming the Labour Force Survey’, ONS, April 3<sup>rd</sup>, 2023, notes that the problems started to arise in the pandemic when interviewers could no longer knock on doors.

<sup>22</sup> [https://www.bls.gov/cps/methods/response\\_rates.htm#CPS\\_response\\_rates](https://www.bls.gov/cps/methods/response_rates.htm#CPS_response_rates) and <https://www.bls.gov/osmr/response-rates/#chart1a>

<sup>23</sup> Amna Dunn and Vianney Gomez, Nonresponse rates on open-ended survey questions vary by demographic group, other factors, Pew Research March 7, 2023.

The youth crisis is global and recent in origin.

### 3. Empirical evidence from around the World from five surveys

#### 3.1. Eurobarometers 2020-2023 and Flash Eurobarometer #530 from 2023

([https://data.europa.eu/data/datasets/s3032\\_fl530\\_eng?locale=en](https://data.europa.eu/data/datasets/s3032_fl530_eng?locale=en))

<https://europa.eu/eurobarometer/surveys/browse/all/series/4961>

We first examine the long time series on life satisfaction that has been available in the Eurobarometer survey series across European countries. Data is available from 1973-2023 (n=3,268,780). This included member countries but also candidate countries. Countries join the survey usually in the years prior to them become members of the EU. Data are also available for Iceland, Norway and Switzerland. The life satisfaction variable is 4-step.

In columns 1 and 2 of **Table 2** we report life satisfaction regressions for the period 1973-2019 and for 2020-2023. The latter uses sweeps #93.1, #93.2, #94.1, #94.3, #95.1, #95.2, #95.3, #96.1, #96.3, #97.3, #97.5, #98.2, #99.4, #100.2

In both periods there is an apparent U-shape with a minimum in the age range 55-64. We then separately by country in both periods ran country level regressions with an age 15-24 dummy, with controls for year and gender. In the first period there were significant positives in 33/34 countries with the exception of Luxembourg, which had an insignificant coefficient. In the second period there were positive and significant coefficients in 28 countries.<sup>24</sup> Significant negatives on the age <25 variable was found in Denmark, Iceland, Ireland, Netherlands, Norway, Sweden, Switzerland and the UK. The coefficients were insignificant in Germany, Finland, Luxembourg and Turkish Cyprus. There is then some evidence of deterioration in most recent data of deterioration in the well-being of the young in a dozen countries or so, but not in the majority.

We now turn to evidence from a Flash Barometer #530 which asked somewhat different questions, and especially ones on mental health on 27 EU member countries which does find broad based evidence of declining well-being of the young. It is a telephone interview conducted in 2023 also by the EU Commission.

In the final three columns, which uses the Flash Barometer survey, of **Table 3** we report findings overall and by country for two positive affect variables – a yes/no happiness variable and yes/no responses to feeling calm and peaceful during the past 4 weeks and a yes/no variable regarding feeling anxious in the last 12 months. The first thing to note is how different the age pattern is for happiness, which shows a U-shape with a minimum at age 55-64 as it did with the Eurobarometers in columns 1 and 2, the age pattern with calm and peaceful rises steadily in age. Consistent with that is the age pattern for feeling depressed or anxious declines in age.<sup>25</sup>

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<sup>24</sup> Albania, Austria, Belgium, Bosnia/Herzegovina, Bulgaria, Croatia, Cyprus, Czechia, Estonia, France, Greece, Hungary, Italy, Kosovo, Latvia, Lithuania, Malta, Moldova Montenegro, North Macedonia, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain and Turkey

<sup>25</sup> Analogously in Blanchflower and Bryson (2024d) which used the Gallup World Poll we found that the female variable in a Cantril equation was significantly positive but when it was included in a (1,0) enjoyment equation, the sign switched to negative.

So, the nature of the questions asked seems to matter. Why we should observe such differences is unclear. But this theme is continued in other surveys below – where the declining trend in the mental health of the young is less apparent using life satisfaction and happiness measures than it using negative affect measures such as anxiety. This is exactly what was found in the UK by Blanchflower, Bryson and Bell (2024) with the UK Labour Force Survey, where declines were most apparent with anxiety and less so with happiness and life satisfaction measures.

In **Table 4** we report coefficients on an age 15-24 variable for the three variables by country. In the first column for happiness there are 12 positives and one negative and nine zeroes. So the evidence on the net suggests the young are happier. In column 2 for calm and peaceful and column 3 for depressed and anxious the results are the opposite and the young are the least happy. In column 2 there are 18 negatives and one positive and in the final column there are 19 positives and three zeroes. Why the happiness variable is so different is a continuing issue.

### 3.2. European Social Survey, sweep 11, 2023

(<https://www.europeansocialsurvey.org/>)

This is largely a face-to-face survey with an interviewer, with 4.6% via the internet. Interviews were conducted across 24 European countries. We simply report in **Table 4** country level estimates from regressions of seven dependent variables on an age 15-24 dummy variable and gender. These are happiness, life satisfaction, trust, feeling depressed, sad, lonely, or lacking energy. In the ‘all’ equations country dummies were included. Of particular note is the strong evidence from five countries that the young are especially unhappy – four of which also appeared using the Eurobarometers – Finland, Norway, Sweden and Switzerland – plus Israel. The evidence for six countries is solidly that the young are happiest on all seven measures in Croatia, Greece, Hungary, Italy, Portugal and Serbia

Of note is that eight countries had not only face-to-face interviews but also a small number of observations on the internet – Finland, 1141 (419), France, 1699 (72), Great Britain, 1640 (44), Israel 490 (352), Netherlands 1617 (78), Norway 689 (647), Sweden 1083 (147) and Switzerland 1327 (57) with the number on the internet in parentheses. When we regressed happiness on the age 15-24 dummy and gender it was significantly negative and significant for both samples.<sup>26</sup>

### 3.3. EU Loneliness Survey, 2022 (EULS).<sup>27</sup>

(<http://data.europa.eu/89h/82e60986-9987-4610-ab4a-84f0f5a9193b>)

This is a web-based survey across all 27 EU member countries. It has previously been used in an interesting new paper by Martinez, d’Hombres and Kovacic (2025).<sup>28</sup> In a volume edited by Schnepf, d’Hombres and Mauri (2024) there are a number of papers on the loneliness variable in particular. We see here that in age terms it looks much like the other well-being variables. Questions are asked on not being lonely, good mental health, feeling hopeless, nervous, worthless, restless, depressed and happy. In **Table 5** we report the results of regressing these variables on age

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<sup>26</sup> In the face-to-face sample the age 15-24 coefficient was -.273 (t=4.87) and n=9611. For the web survey the coefficient was -.4359 (t=4.5) and n=1807.

<sup>27</sup> *European Commission, Joint Research Centre (JRC) (2024): EU Loneliness Survey. European Commission, Joint Research Centre (JRC)*

<sup>28</sup> The authors find that intensive use of social networking sites correlates positively with loneliness and emotional distress. Further, young adults who either grew up with smartphones during their teenage years or their twenties “were particularly vulnerable to excessive use of social network sites”.



dummies, gender and country. The first four are 6-step variables relate to the past week and are coded from 1=never to 6=always. Lonely is coded from 1 if none of the time to 5 if all of the time over the past four weeks.

In contrast to the Eurobarometer surveys, this web-based survey, shows that happiness *rises* in age, while negative affect declines with it - while being nervous, life is worthless or depressed all decline in age as does being lonely.

In **Table 6** we report country-level results of regressing each of these variables in turn on an age 18-24 dummy and a female dummy. A positive sign suggests significantly positive, and so on based on  $t > 1.6$ . These results are entirely consistent with the results above for calm and peaceful and anxious and depressed and the opposite to the happiness and life satisfaction variables. We report a broad body of evidence suggesting that the young have low levels of well- loneliness all variables are positive except for Luxembourg, which is insignificantly different from zero, but it has a small sample. The next five columns for the negative affect variables depressed, nervous, worthless, restless and hopeless also contain mostly significantly positive effects. Of the 162 estimates none are significantly negative and only (6\*27) eleven are insignificant. Being happy is a different story, with 19 insignificant effects, five negatives and two positives.

This time around the happiness variable is not different from the other variables. The main difference between this survey and the Eurobarometers is that this is a web-based survey, and this may help to explain the differences in the evidence on the mental health of the young. We explore this further below.

### **3.3. Global Flourishing Study, 2022-2024.** (<https://globalflourishingstudy.com>)

We now move onto a survey that is useful as some of the data is collected by interviewer and some by the web and even within the same country. It turns out the method used to pull the sample matters. Web-based surveys produce results consistent with those of EULS and GM, while the telephone-based surveys do not.

This study has several interesting components.

1. It has 3 positive affect 11-step questions on Cantril's ladder life evaluation as well as on life satisfaction and happiness. The last two questions are a little unusual in their wording and the fact that they go from 0-10 rather than 1-10 as the UK Annual Population Survey does. It also has 11-step questions on worthwhileness and satisfaction with relationships.
2. The survey also contains six negative affect variables relating to mental health, anxiety, depression, worry and lack of interest and pleasure. For the first time we are also able to examine loneliness which the US Surgeon General (2023) flagged as of particular importance.
3. The date the interview ended is recorded, and we can adjust for it. As we noted in Blanchflower and Bryson (2024) this is a major issue in the GWP which surveys at different times over time in the same country and between countries in a year. In what follows we will control for day of interview.

4. Finally, and most importantly whether the interview was web-based or phone based was recorded. This as we see will make a difference. Eight countries were only web-based but fourteen had both.

In part a) of [Table 7](#) we report the results of regressing each of the five positive affect 11-step variables on age and gender. Of note is that there is a clear U-shape for Cantril, life satisfaction and happiness but an upward slope for both family satisfaction and worthwhileness. Why such an anomaly again remains unclear to this point. In part b) of [Table 7](#) we examine six negative affect variables. Noting at the outset that the mental health and lonely variables relate to good mental health and not being lonely, so we see good mental health, not being lonely rising in age and being depressed, anxious, worry or have little interest in doing things, consistently all decline in age. Once again, life satisfaction and happiness are outliers.

[Appendix Table 1](#) part a) reports which countries have used which sampling methodology. One group of more advanced countries just uses the web (CAWI) - Australia, Germany, Hong Kong, Japan, Spain, Sweden, UK and USA. The rest are split between using Web and the telephone. It turns out that this makes a difference. Part b of the appendix reports on the sampling by age in the GFS. We first present the % age 18-24, as a proportion of the adult population in 2025 drawn from the Census Bureau's International Database. We then report the percent using telephone (CATI) and the percent on the web (CAWI). We report the unweighted and weighted estimates based on the variable *annual\_weight1* provided by Gallup. It is unclear why the weights have such large effects in the USA, for example, increasing the percent young tenfold.

- i) In the countries with only web samples the Census proportion is reasonably close to the CAWI weighted number. It is further away from the unweighted number and especially so in the US, which is only 0.77% in the unweighted but 7.0% in the weighted. Out of 38,312 US respondents only 296 were age<25.
- ii) In every case, where there are both telephone and web samples, the proportion young is higher in the web samples, the percent young is much higher in the latter. For example, Brazil, unweighted has 5% on the telephone sample and 21% in the web survey, Mexico has 6% and 24% respectively
- iii) It seems the young don't answer the phone.

So, in [Table 8](#) we pooled all eight countries together that only used the web, controlled for day of interview, and in all eleven cases, including Cantril, life satisfaction and happiness, well-being rose in age and ill-being declined in age. Then we went to the remaining fourteen countries and re-estimated for each of the variables, splitting the sample between responses from the telephone and the web. We do not have enough observations to produce individual country estimates. Differences are dramatic in [Table 9](#) for the five positive affect variables. In each of the five variables well-being declines in age in the telephone sample and increases in age in the web sample. Analogously, we see the same, in [Table 10](#) with the six negative affect variables.

[Appendix Table 2](#) reports the sign on the age 18-24 variable by country for four positive affect variables using the web-based sample across all 22 countries in part a) and the telephone in part b) which was only used in fourteen countries. We present results for four positive affect questions – Cantril, Life satisfaction, happiness and not being lonely and one 4-step negative one feeling down,



depressed or hopeless. It is apparent that there is more evidence of negative coefficients – meaning the young are less happy – for the latter four variables than the former.

Using Cantril, only countries have significant negatives – Australia, Brazil, Hong Kong, Japan, Mexico, Sweden the UK and the USA. But we can add Germany, Egypt, India, Indonesia, and Spain, say if instead we used happiness and in addition Argentina, Nigeria, Tanzania and Turkey if we used not lonely. In the not lonely column, there are 17/22 negatives versus 9 with Cantril. In the case of depression, there are 16/22 positives implying the young have worse mental health than those 25+. So, question makes a difference in these web surveys.

In the second part of the table which uses the telephone survey, none of the countries have a significant negative with Cantril, and only one Argentina does for life satisfaction and happiness. Not lonely though has five negatives – for Argentina, Egypt, Indonesia, Philippines, and Turkey. Sample mode and questions matter. Being depressed has seven positives. So, question matters here. The evidence is strongest from the web surveys of poor youth well-being and weakest using Cantril.

**Table 11** estimates a model using the GFS data on who takes the web rather than the telephone survey and we observe the young are more likely, as are men, the more educated, people residing in cities, workers and migrants. Adding weights has little impact.

There is clear evidence of the young being the least happy in all of the variables when the web is used to sample the data, but we did not replicate that in any sample that used the telephone mode. Sample mode then may explain a number of the differences then that we have seen especially with life satisfaction and happiness variables. But why?

### **3.5. Gallup World Poll, 2018-2023.**

One issue worth addressing is whether the age patterns in well-being with face-to-face interviews with an interviewer are different than ones on the telephone with an interviewer. It turns out they are not, based on a separate analysis we did with the Gallup World Poll (GWP). Of note in that survey, we found that in advanced countries almost all interviews are conducted via the telephone – e.g. USA, Japan, New Zealand, Canada, France, UK, Germany, Netherlands, Belgium, Spain, Italy, Sweden, Denmark, Austria, Cyprus, Finland, Iceland, Ireland, Luxembourg, Malta, Portugal, Slovenia, Switzerland and Northern Cyprus. Mixed samples between face-to-face and telephone are done in numerous other countries although some only have face-to-face.

In **Table 12** we restricted the GWP samples for 2018-2023 to the 81 countries that had both types of interviews, and then ran individual country regressions of Cantril on an age 18-24 variable, gender and year for both modes and could find little difference. In **Appendix Table 3** we report individual results by country by both methods separately and the results were very similar, in almost all cases the 18-24 variable was significant and positive.<sup>29</sup>

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<sup>29</sup> In contrast we did find significant and negative coefficients, with t-statistics in parentheses, on the age 18-24 variable in ten advanced countries that used the telephone only as below: Australia=-.1687 (1.76) n=6036; Canada=-.4745 (5.31) n=6063; Denmark=-.1211 (2.03) n=6039; Finland=-.3936 (5.24) n=6040; Norway=-.2215 (2.89) n=6034; Netherlands=-1.3485 (2.30) n=6055; New Zealand=-.4339 (5.33) n=6032; Sweden=-.2387 (3.16) n=6025; UK -.0460 (0.53) n=6021; USA -.5001 (5.51) n=6041;

### 3.6. Global Minds, 2020-2024. (<https://sapienlabs.org/global-mind-project>)

Data is available from this web-based survey, collected by Sapien Labs, since 2020 and which has several measures of positive and negative affect. Here we focus on the positive affect MHQ score (see Bala, Newson and Thiagarajan, 2024) which varied between -100 and +200 plus a much smaller sample in 2022 which also includes the Cantril variable used in GFS. Sample size across these countries in the larger sample is 2020=434,25; 2021=134,763; 2022=233,949; 2024=231,074 with an overall sample size of 895,075. The data we use here was downloaded in December 2024.

Average MHQ scores for the young age 18-24 in the full sample were *everywhere* below those of the young age 25+ as seen below, with the age 25+ means in parentheses - Argentina 22 (88); Australia 13 (73); Brazil 2 (69); Egypt 20 (63); Germany 18 (69); Hong Kong -1 (68); India 16 (70); Indonesia 25 (80); Israel 45 (98); Japan 2 (47); Kenya 43 (83); Mexico 15 (87); Nigeria 36 (97); Philippines 39 (97); Poland 27 (79); South Africa 11 (65); Spain 18 (70); Sweden 24 (82); Tanzania 70 (90); Turkey 34 (77); UK 8 (58) and USA 26 (93).

The first column of part a) of **Table 13** reports the results of regressing the MHQ score on a sample of these 22 countries pooled along with a gender dummy. MHQ rises approximately linearly in age. The second column for simplicity now simply includes an 18-24 dummy which comes in significantly negative. The final two columns do the same with the sample that contains Cantril scores, which rise linearly also. The last column has an 18-24 dummy which again is significantly negative. Part b) presents results for 9-step variables self-worth and confidence, which is comparable to the MHQ score and rises in age. Suicidal thoughts and fear and anxiety which are also 9-step scores, decline in age.

In **Table 15** we present results for an astonishing 167/193 countries that are members of the United Nations.<sup>30 31</sup> The U-shape was only found in 145 countries (Blanchflower, 2021). We have no data for the Palestinian Territories or Nauru. In 24 countries, with sample size of 101 or less, the 18-24 age dummy was always insignificant.<sup>32</sup> We interpret the significant negative coefficient on

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<sup>30</sup> <https://www.un.org/en/about-us/member-states>

<sup>31</sup> The countries are Afghanistan; Algeria; Andorra; Angola; Antigua & Barbuda; Argentina; Armenia; Australia; Austria; Azerbaijan; Bahamas; Bahrain; Bangladesh; Barbados; Belarus; Belgium; Belize; Benin; Bhutan; Bolivia; Bosnia & Herzegovina; Botswana; Brazil; Brunei Darussalam; Bulgaria; Burundi; Cabo Verde; Cambodia; Cameroon; Canada; Central African Republic; Chad; Chile; China; Colombia; Comoros; Congo; Costa Rica; Côte d'Ivoire; Croatia; Cuba; Cyprus; Czechia; DR Congo; Denmark; Djibouti; Dominica; Dominican Republic; Ecuador; Egypt; El Salvador; Equatorial Guinea; Estonia; Eswatini; Ethiopia; Fiji; Finland; France; Georgia; Germany; Ghana; Greece; Grenada; Guatemala; Guinea-Bissau; Haiti; Honduras; Hungary; Iceland; India; Indonesia; Iran; Iraq; Ireland; Israel; Italy; Jamaica; Japan; Jordan; Kazakhstan; Kenya; Kiribati; Kuwait; Kyrgyzstan; Latvia; Lebanon; Libya[s]; Liechtenstein; Lithuania; Luxembourg; Madagascar; Malawi; Malaysia; Maldives; Malta; Marshall Islands; Mauritania; Mauritius; Mexico; Monaco; Mongolia; Montenegro; Morocco; Mozambique; Myanmar; Namibia; Nepal; Netherlands; New Zealand; Nicaragua; Niger; Nigeria; North Korea; North Macedonia; Norway; Oman; Pakistan; Panama; Paraguay; Peru; Philippines; Poland; Portugal; Qatar; Republic of Moldova; Romania; Russian ; Rwanda; Saint Kitts & Nevis; Samoa; San Marino; Saudi Arabia; Senegal; Seychelles; Singapore; Slovakia; Slovenia; Solomon Islands; South Africa; South Korea; South Sudan; Spain; Sri Lanka; Sudan; Sweden; Switzerland; Syria; Tajikistan; Tanzania; Thailand; Togo; Trinidad & Tobago; Tunisia; Türkiye; Tuvalu; Uganda; Ukraine; UAE; UK; USA; Uruguay; Uzbekistan; Venezuela; Viet Nam; Yemen; Zambia and Zimbabwe.

<sup>32</sup> Albania, Burkina Faso; Eritrea; Gabon; Gambia; Guinea; Guyana; Laos; Lesotho; Liberia; Mali; Micronesia (Federated States of); Palau; Papua New Guinea; Saint Vincent and the Grenadines; São Tomé and Príncipe;

the age 18-24 dummy in an MHQ as corroborating the claim that the U-shape in well-being has gone and wellbeing now rises in age in 167 countries using the self-reported responses via the internet. That is the case in all the major countries of the world; the phenomenon is truly global.

It is apparent even in countries with relatively small sample sizes including Burundi and Equatorial Guinea with n=40, And Kiribati with n=21 and Liechtenstein with n=25. It is true in island nations such as St Kitts and Nevis and the Solomon and Marshall Islands in the two biggest countries in the world India and China and in every EU country. The results are similar to those in countries with big samples, such as Canada, Colombia, Egypt, India, Jordan, Mexico, Pakistan, the UK, the USA and Venezuela. It is found across all continents including in Latin America and Africa as reported in Blanchflower and Bryson (2024b). All 22 countries that were covered by the GFS that we examined in the earlier section have significant negatives.

#### **4. Web Based sampling and use of the phone**

There is a long-established literature that suggests there are reasons to think that self-administered responses to mental health questions are different from those that are interviewer administered either face-to-face or via the telephone. The question is which to believe?

Tara Thiagarajan has suggested to us that one can make a pretty good case that Millennials and GenZ, basically people under 40, are loathe to answer the phone and have anxiety over answering the phone. This phenomenon has probably grown from Millennials to GenZ. Consequently, those who answer the phone are typically a minority who do not have social anxiety and are not worried about spending time chatting with a stranger. This means that for those under 40 the telephone survey would increasingly underestimate those who have mental health issues, particularly anxiety and social anxiety - this underestimation likely grows from age 40 to 18 (and therefore explain the U-shape for telephone). A recent study from India by Bairwa, Udayaraj and Manna (2024) makes a case that this is true even outside the core Anglosphere among medical students of what they call phone ring phobia syndrome or telephobia which is the fear of making or taking phone calls. They found that 9% had moderate to severe telephobia.

Sky Mobile commissioned a poll of 1,000 18–24-year-olds in the UK and found over a quarter (26%) of Gen Z say they actively ignore phone calls and over half (57%) admit to blanking calls from their parents. They found almost a third (32%) of Gen Z said they rarely make a phone call with a fifth (20%) finding it weird when they receive one. Of those surveyed, 36% admit they would only make a call to locate their mates on a night out and around one in five (19%) would only make a voice call in an emergency.<sup>33</sup> Reid and Reid (2007) found that anxious people they surveyed in the US and the UK preferred to text rather than make phone calls.

Ash Turner (2024) reports on results collected by BankMyCell, the cell phone trade-in service. (Source: <https://www.bankmycell.com/blog/why-millennials-ignore-calls#data>). They found that 75% of millennials avoid phone calls as they're time-consuming, 64% try to avoid whiny or needy people. 63% of people use the excuse 'I didn't notice it ring/vibrate' as a reason for avoiding your

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Serbia; Sierra Leone; Somalia; Suriname; Timor-Leste; Tonga; Turkmenistan and Vanuatu. We also report data for Hong Kong which is not a UN member state.

<sup>33</sup> 'CALL DECLINED! A quarter of 18-24s refuse to pick up the phone says new research', Sky Mobile, October 12 2023. <https://www.skygroup.sky/article/call-declined-#>

call, followed by 12% blaming phone signal. 29% of people are most likely to avoid calls from friends, 25% from their family, and 21% from work. 81% of millennials get apprehension anxiety before summoning up the courage to make a call. 88% of people would rather have unlimited data than calls and SMS.

Rickwood and Coleman-Rose (2023) note that there is evidence that people completing interviewer administered questionnaires are more likely to provide socially desirable responses than those completing self-administered questionnaires (see Milton et al (2017), Aquilino, 1998) Burkill et al (2016) and D’Ancona, 2014).<sup>34</sup> This they call *social desirability bias*. This they argue “*is the tendency to under-report socially undesirable attitudes and behaviours and over-report more desirable attributes. This may happen for two reasons: first, for impression management, which is the deliberate presentation of self to conform to an audience’s normative expectations; and second, due to self-deception, which is based on motivation to maintain a positive self-concept that may be unconscious.*”

The literature suggests that different survey modes may differently affect an individual’s response process leading to systematic differences in responses. Rickwood and Coleman-Rose (2023), for example, looked at two large national community samples of young Australians aged 12–25 years conducted in 2020 and 2022 which used both interviewer-administered and self-report modes of data collection. Results showed participants reported lower psychological distress and higher wellbeing in the interviewer-assisted compared with the self-report mode. Kocjan, Lavtar & Sočan (2023), in a study in Slovenia reported statistically significant and notable differences in latent means, suggesting that individuals who respond face-to-face systematically report better psychological functioning than individuals who respond over the web.

Arenas-Arroyo, Fernandez-Kranz and Nollenberger (2023) in an important study for Spain used hospital records and took advantage of exogenous variation in the deployment of optic fiber in Spain from 2007-2019. They examined the causal effects of (HS1) internet access on the behavioral and mental health (BMH) diagnoses among adolescents aged 15 to 19. They found that “*HSI increases addictive internet use while reducing time spent on sleep, homework, and socializing with family and friends, with girls driving all these effects*”. They also provided evidence that HSI contributes to a significant increase in suicide among adolescents, with the effects again being larger among girls. Contrary to the claims made by Currie they argue that “*contrary to the hypothesis that these results could be due to increased awareness, we find that HSI is a factor contributing to a significant increase in suicide-related deaths among adolescents, with the effects again being larger among girls*”.

Indeed, there is also some suggestion that even though the hours of usage of the internet have risen over time the young neither make nor receive phone calls. In an Edison Mail 2022 survey of Gen Z, ages 9-24 in Australia only 23% said that phone calls were their most used communication method versus 33% for those age 33-46 and 62% for ages 76-93. Research by CommBank and More in Australia found only 1 in 10 Gen Z Australians would prefer to talk to their friends and family via a phone call. 87 per cent admitted to handling an unpleasant task via text message

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<sup>34</sup> References from Rickwood and Coleman-Rose (2023).

instead of picking up the phone, with nearly half admitting that speaking on the phone makes them feel anxious (49 per cent).<sup>35</sup>

The concern then is there are non-response downward biases on the phone. Old people don't use the internet as much as young people, but our focus here is on the young and their mental health. It seems that the web-based surveys likely give us the clearest picture. Of course, the potential issue also arises that mentally unwell people may not respond to online, self-administered surveys. There is reason to believe for example, that unhappy people are less likely to respond to surveys. The less happy someone is the more likely they are to attrit from panel surveys such as the German-Socio Economic Panel (Chadi, 2019).

## 5. Conclusions.

Young people have worsening mental health and increasingly are lonely. The U.S. Surgeon General (2023) in a recent report, noted that “*approximately half of U.S. adults report experiencing loneliness with some of the highest rates among young adults*” (p. 9). They also note that the rate of loneliness among young adults in the US has increased every year between 1976 and 2019.

Twenge, Haidt et al (2021) examined the OECD PISA surveys of 2000, 2003, 2012, 2015 and 2018 and found that school loneliness among 15- and 16- year olds, increased from 2012-2018 in 35/36 countries they examined.<sup>36</sup> They found rises in loneliness in the USA plus Australia, Austria, Belgium, Brazil, Bulgaria, Canada, Chile, Czechia, Denmark, Finland, France, Germany, Greece, Hong Kong, Hungary, Indonesia, Ireland, Italy, Japan, Latvia, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Peru, Poland, Portugal, Russia, Spain, Sweden, Switzerland, Thailand and the UK but not in South Korea. The mean score in the US rose from 1.85 in 2012 to 2.11 in 2018 on the 1-4 scale. Notably, school loneliness was high when smartphone access and internet use were high

Atalay (2022) using the American Time Use Surveys, that since 2003 Americans have increasingly spent their free time alone and especially so for younger people, by 6.1 percentage points for individuals between 18 and 39, versus 2.5 pp for ages 40-59 and 3.0 pp for those 60+ between 2003 and 2019 (p.8). The number of close friendships has also declined over several decades. Cox (2021) found that almost half of Americans (49%) in 2021 reported having three or fewer close friends —only about a quarter (27%) reported the same in 1990.

There is growing evidence, for example, that a significant change has occurred in that teens are drinking much less than was the case among previous generations. Luomanen & Alasuutari (2022) note that declining youth drinking has occurred in Finland, Republic of Ireland, Germany, Portugal, Italy, Norway, Sweden, Iceland and Czech Republic) as well as in the United States,

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<sup>35</sup> <https://www.edisonmail.com/blog/study-across-generations-email-remains-a-critical-tool>  
<https://www.commbank.com.au/articles/newsroom/2023/06/CBA-More-Gen-Z-research.html>

<sup>36</sup> School loneliness was based on six questions about loneliness at school. “I feel like an outsider (or left out of things) at school,” “I make friends easily at school” (reverse-scored), “I feel like I belong at school” (reverse-scored), “I feel awkward and out of place in my school,” “Other students seem to like me” (reverse-scored), and “I feel lonely at school.” Response choices were “strongly disagree,” “disagree,” “strongly agree,” and “agree,” scored from 1 to 4 with higher scores indicating more loneliness. Scores were added together and divided by 6.

Canada, Australia, Russia and Ukraine. Young adults are spending less time socializing and doing things they find meaningful, and more time alone on unfulfilling activities.<sup>37</sup>

Jean Twenge (2023) noted that since 2013 there has been a rapid decline in face-to-face socializing especially among the young. Also there has been a big decline in the percent of 12<sup>th</sup> grade girls who go out with friends two or more times a week. Gen Z have been delaying getting their driver licenses. They are less likely to go on a date than in the past and the teenage pregnancy rate has plummeted. Twenge reports that young adults are on track to have fewer sex partners than members of the two preceding generations.<sup>38</sup> She further reports that people now in their early 20s are two and a half times as likely to be abstinent as Gen Xers were at that age; 15 percent report having had no sex since they reached adulthood. Derek Thomson has argued that we increasingly live in an anti-social society.<sup>39</sup>

In the European Social Surveys, respondents have been asked how often they meet with friends, relatives or colleagues. Weighted estimates show that the percent of those age 18-24 who say “every day” declined as follows 2002=37%; 2004=35%; 2006=38%; 2008=35%; 2010=37%; 2012=32%; 2014=28%; 2016=30%; 2018=31%; 2020=29% and 2023=28%.

In an earlier paper (Blanchflower, Bryson and Xu 2024) we documented that the U-shape in age in well-being and the hump-shaped in ill-being had disappeared in the US and the UK. This is driven by the fact that youth happiness has declined and there has been little or no change in the wellbeing of those age >45 in the US or the UK. Now it seems that happiness rises in age and its converse unhappiness declines with age in many countries.

Evidence from fourteen large US representative, micro surveys showed that the mental health of the young had clearly worsened over time. These included a mix of survey modes from telephone only (BRFSS) and internet only (Healthy Minds, Global Minds and Global Flourishing) to a mixed mode of internet and face-to-face (NHANES) to face-to-face only (NHIS). All confirmed the same picture. Since 2015 suicide rates in the US of those under 25, for boys and girls has also risen, while for all older age groups for both genders they fell. Morbidity tracks mortality. This evidence runs contrary to claims made recently by Janet Currie in her AEA Presidential Address that that it is a myth that “*there has been a rapid deterioration in child mental health.*” We present clear unequivocal evidence to the contrary. No myth.

Four European multi-country micro –level surveys conducted by the EU commission showed contradictory evidence. First, the Eurobarometer surveys which have asked life satisfaction questions since 1973 and is generally conducted in a face-to-face interview format suggested that the young in the years since 2020 are less happy than older age groups in only eight countries – Denmark, Iceland, Ireland, Netherlands, Norway, Sweden, Switzerland and the UK. The European Social Survey of 2023 was broadly consistent with this finding with the young being the least happy in Finland, Norway, Sweden and Switzerland plus Israel.

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<sup>37</sup> John Burn-Murdoch, “Young people are hanging out less – it may be harming their mental health, Financial Times, 17<sup>th</sup> January 2025. <https://on.ft.com/4g3xozR>

<sup>38</sup> Kate Julian, ‘Why are young people having so little sex?’, The Atlantic, December 2018

<sup>39</sup> Derek Thompson, ‘The Anti-Social Society’, The Atlantic, January 8<sup>th</sup>, 2025.



The EU Flash Eurobarometer survey #530 for 2023 which is also a telephone survey and using happiness data we found little supporting evidence from a happiness variable but strong evidence from negative affect variables, so questions mattered. With only the exception of Luxembourg which had a small sample, of the young being the most *anxious*, but also less calm and peaceful. This is consistent with evidence in Blanchflower, Bryson and Bell (2024) for the UK using the Annual Population Survey that the evidence for a disappearing U-shape was more apparent in anxiety data than in life satisfaction and happiness.

The final European file was the EU Loneliness study of 2022, this time collected by the EU Commission via the internet, showed evidence for all 27 EU countries that the young, ages 18-24 were especially unhappy. This result was consistent across six negative affect measures including loneliness and feeling depressed. It was less clear again in happiness data. So, sample mode and questions matter again.

The Global Flourishing Study of 2022-2024 was particularly interesting in that some countries used only web-based sampling, and some used that plus telephone based. Seven countries with web-based sampling - Australia, Germany, Hong Kong, Spain, Sweden, the UK and the US - showed that well-being *rose* with age. Sample sizes by country in some cases were small so the countries were pooled, and for a further fourteen that used both methods and when web was used well-being rose with age and when the telephone was used in the same countries, it declined in age. Sample mode matters.

Global Minds, another internet-based study showed the young were the least happy in 167/193 UN countries including *every* large one. We found that positive affect as measured by the MHQ score as well as having self-worth and confidence while suicidal thoughts and fear and anxiety all declined in age. It made no difference in this survey what question was used and whether it was positive or negative affect.

There is an existing literature that shows that young people are less prepared to report on the (poor) mental well-being to an interviewer, whether by phone or face-to-face that they would, if they self-reported on the web. There is some evidence that they don't make phone calls or answer the phone or respond to telephone surveys. This means that survey mode does matter. We also saw that the evidence of relatively poor youth well-being was clearer using negative affect variables and positive affect variables such as being calm and peaceful, life being worthwhile as well as satisfaction with relationships, rather than life satisfaction and happiness. So, questions asked do matter, but less so it seems in internet-based surveys such as Global Minds where the evidence is the same whether, for example the MHQ score, Cantril life satisfaction, suicidal thoughts or fear and anxiety are used.

The young have not been doing well globally over the last decade. This is something new and seems correlated with the coming of smart phones. The youth mental health crisis has not existed for decades but is of recent origin. The mental health of the young continues to worsen and there is no end in sight. No myth. There is a global mental health crisis that we identified in 167 of the UN's 192 members that started a decade ago. The question now is how to slow it down.

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Table 1. Four ill-being, negative affect measures and age in the USA (weighted): source: Household Pulse Surveys, 2020-2024.

	Anxious	Down	Worry	Interest
>25	40	31	32	32
25-34	37	26	29	26
35-44	30	20	25	21
45-54	27	18	22	20
55-64	23	15	19	18
65-74	16	11	13	13
75-84	11	7	9	10
85+	17	13	15	16
All	27	19	22	20
N	4,675,687	4,669,479	4,668,628	4,666,930

Over the last 2 weeks, how often have you been bothered by:

- Anxious - feeling nervous, anxious, or on edge?*
- Worry - not being able to stop or control worrying?*
- Down - by feeling down, depressed, or hopeless?*
- Interest - bothered by having little interest or pleasure in doing things?*

Answers were coded as Not at all = 1, Several days = 2, More than half the days = 3 and nearly every day = 4. We report the percent who said more than half or nearly every day. Weighted with *pweight*

Table 2. Eurobarometer 1973-2023 and EU Flash Eurobarometer #530 2023 – Yes/No dummies

	Eurobarometer		Flash Eurobarometer		
	Life satisfaction 1973-2019	Life satisfaction 2020-2023	Happy	Calm & peaceful	Anxious
25-34	-.1015 (64.52)	-.0813 (19.58)	-.0083 (1.11)	-.0145 (1.43)	-.0217 (1.87)
35-44	-.1499 (96.38)	-.1192 (29.66)	-.0318 (4.34)	.0050 (0.36)	-.0839 (7.43)
45-54	-.2171 (138.57)	-.1764 (44.42)	-.0545 (7.43)	.0398 (4.01)	-.1312 (11.64)
55-64	-.2188 (139.17)	-.1937 (48.93)	-.0630 (8.42)	.1355 (13.36)	-.2103 (18.34)
65-74	-.1822 (112.48)	-.1544 (38.12)	-.0542 (7.54)	.2304 (23.65)	-.3188 (28.90)
75-84	-.1888 (93.05)	-.1505 (29.92)	-.0409 (3.34)	.2602 (15.71)	-.3843 (20.79)
85+	-.1714 (42.35)	-.1610 (16.12)	-.0817 (1.817)	.1983 (3.35)	-.4282 (6.50)
Adj R <sup>2</sup>	.1860	.0040	.0202	.0686	.1158
N	2,799,471	465,860	26,402	26,402	24,727

Q1. “On the whole, are you very satisfied (= 4), fairly satisfied (= 3), not very satisfied (= 2) or not at all satisfied (= 1) with the life you lead?”

Q2 “In the last 12 months have you had emotional or psychological problems (such as feeling depressed or feeling anxious?” with a yes/no answer.

Q3. Which of the following statements best describes how you felt in your day-to-day life, whether at home, at work or elsewhere, during the past 4 weeks?

a) I felt happy

b) I felt calm and peaceful. T-statistics in parentheses. Excluded ages 15-24.

Table 3. Age 18-24 effects from EU Flash Barometer #530 Survey 2023.

	Happy	Calm & peaceful	Anxious		Happy	Calm & peaceful	Anxious
Austria	0	-	+	Italy	0	0	+
Belgium	0	-	0	Latvia	+	0	+
Bulgaria	0	-	+	Lithuania	0	0	+
Croatia	+	-	0	Luxembourg	0	0	0
Cyprus	+	0	+	Malta	-	0	+
Czechia	0	-	+	Netherlands	0	-	+
Denmark	+	-	+	Poland	0	-	+
Estonia	+	-	+	Portugal	0	-	+
Finland	+	0	+	Romania	+	-	+
France	0	-	+	Slovakia	0	-	+
Germany	0	-	+	Slovenia	+	-	+
Greece	+	0	+	Spain	+	-	+
Hungary	+	-	+	Sweden	+	-	+
Ireland	0	+	+				

Table 4. Coefficients on age 15-24 dummy in country level regressions from 2023 European Social Survey. 0=insignificant; -ve means significantly negative and +ve means significantly positive  $t > 1.5$ .

	Happy	Life	Trust	Depressed	Effort	Lonely	Sad	N
All	+	+	0	-	-	0	0	40,156
Austria	0	0	+	+	0	0	+	2,354
Belgium	0	0	-	0	0	+	+	1,594
Croatia	+	+	+	-	-	0	-	1,563
Cyprus	0	0	0	0	0	0	0	685
Finland	-	-	-	+	+	+	+	1,563
France	0	+	0	0	0	+	0	1,771
Germany	0	0	-	+	0	+	0	2,420
Greece	+	+	+	-	-	-	-	2,757
Hungary	+	+	+	-	-	-	-	2,118
Ireland	0	0	0	0	0	0	0	2,017
Israel	-	-	-	+	+	+	+	842
Italy	+	+	+	-	-	-	-	2,865
Lithuania	+	+	0	-	0	0	-	1,365
Netherlands	-	0	-	+	0	0	0	1,695
Norway	-	-	-	+	+	+	+	1,337
Poland	-	0	0	0	0	0	0	1,442
Portugal	+	+	+	-	0	-	-	1,373
Serbia	+	+	+	-	-	-	-	1,563
Slovakia	+	+	+	-	0	0	0	1,442
Slovenia	0	+	0	0	+	+	0	1,248
Spain	0	+	-	0	0	0	+	1,844
Sweden	-	-	-	+	+	+	+	1,230
Switzerland	-	-	-	+	+	+	+	1,384
UK	0	0	-	0	0	+	0	1,684
Face-to-face	+	+	0	-	-	0	0	38282
Internet	-	-	-	+	+	+	+	1846

*Q1. All things considered how satisfied with life as a whole - 1=extremely dissatisfied.....10=extremely satisfied? Q2. Taking all thing together how happy are you 1=extremely unhappy...10 extremely happy? Q3. Generally speaking would you say most people can't be trusted or you can't be too careful 1=you can't be too careful,10 most people can be trusted?. Q4-Q7. I will now read out a list of ways you might have felt or behaved during the past week. Please tell me how much of the time during the past week You felt.. Q4 – depressed? Q5 - everything you did was an effort? Q6 - lonely? Q7 - sad?.. 1=none or almost none of the time 2=some of the time 3=most of the time 4 =all or almost all of the time?*



Table 5. EU Loneliness Surveys 2023 – Yes/No dummies

	Happy	Nervous	Worthless	Depressed	Lonely
25-34	.0637 (2.32)	-.1688 (5.31)	-.2125 (6.05)	-.1316 (3.79)	-.1318 (4.89)
35-44	.0462 (1.73)	-.3096 (10.02)	-.3878 (11.37)	-.2907 (8.62)	-.2618 (10.01)
45-54	.0053 (0.20)	-.4787 (15.49)	-.6261 (18.34)	-.4739 (14.04)	-.4056 (15.51)
55-64	.0491 (1.71)	-.7475 (22.44)	-.8678 (23.58)	-.6872 (18.89)	-.5732 (20.37)
65-74	.2021 (6.34)	-.9398 (25.45)	-1.1201 (16.68)	-.9466 (23.48)	-.7558 (24.29)
75-84	.2556 (4.57)	-1.0710 (16.60)	-1.1903 (16.68)	-1.0231 (14.49)	-.8297 (15.28)
85+	-.1645 (0.71)	-.1796 (0.67)	-.3569 (1.20)	-.3996 (1.36)	-.5896 (2.59)
Adj R <sup>2</sup>	.0152	.0807	.0723	.0714	.0547
N	25,133	25,144	25,045	25,091	24,445

Q1. Frequencies of feeling past week for depressed, nervous, worthless, restless, hopeless and happy - 1=never, 2=very rarely, 3=rarely, 4=occasionally 5=very frequently, 6= always Q2. Self-assessed loneliness frequency over past 4 weeks - 5= All of the time (3.3%); 4= Most of the time (9.8%); 3=Some of the time (22.7%); 2=A little of the time (27.9%), 1=None of the time (36.2%).

Table 6. Age 18-24 effects from EU Loneliness survey, 2022

	Lonely	Depressed	Nervous	Worthless	Restless	Hopeless	Happy	N
Austria	+	+	+	+	+	+	-	973
Belgium	+	+	+	+	+	+	0	953
Bulgaria	+	+	+	+	+	+	+	941
Croatia	+	+	+	+	+	+	+	989
Cyprus	+	+	+	+	+	+	0	481
Czechia	+	+	+	+	+	+	0	957
Denmark	+	+	+	+	+	+	-	960
Estonia	+	+	+	+	+	+	0	955
Finland	+	+	+	+	+	+	0	979
France	+	+	+	+	+	+	0	969
Germany	+	+	0	+	+	+	0	1080
Greece	+	0	0	+	+	+	0	976
Hungary	+	+	+	+	+	+	0	978
Ireland	+	+	+	+	+	+	-	967
Italy	+	+	+	+	+	+	0	968
Latvia	+	+	+	+	+	+	0	940
Lithuania	+	+	+	+	+	+	0	945
Luxembourg	0	+	0	+	0	0	0	347
Malta	+	+	+	+	+	+	-	505
Netherlands	+	+	+	+	+	+	-	965
Poland	+	+	+	+	+	+	0	950
Portugal	+	+	+	+	0	+	0	976
Romania	+	0	+	+	0	0	0	969
Slovakia	+	+	+	+	+	+	0	956
Slovenia	+	0	+	+	+	+	0	983
Spain	+	+	+	+	+	+	-	975
Sweden	+	+	+	+	+	+	0	974

+ means significantly positive; - means significantly negative and - means insignificant age 18-24 dummy. 12 cases age 15-17 dropped. N refers to loneliness.

<https://data.jrc.ec.europa.eu/dataset/82e60986-9987-4610-ab4a-84f0f5a9193b#dataaccess>

Table 7. Global Flourishing Study May 2022 – January 2024 (11-step variables)

	Cantril	Life satisfaction	Happiness	Satisfaction with family	Worthwhile
25-34	-.1438 (7.69)	-.1031 (5.12)	-.1504 (8.12)	.0321 (1.59)	-.0189 (1.00)
35-44	-.2449 (12.70)	-.2001 (9.64)	-.2585 (13.54)	.0057 (0.28)	-.0049 (0.25)
45-54	-.2409 (11.82)	-.2007 (9.14)	-.2618 (12.97)	.0324 (1.47)	-.0047 (0.23)
55-64	-.0110 (0.52)	.0483 (2.11)	.0485 (2.30)	.2708 (11.77)	.2353 (10.84)
65-74	.4267 (18.96)	.5426 (22.3)	.4078 (18.29)	.6950 (28.58)	.5973 (26.03)
75-84	.6552 (22.83)	.8100 (26.2)	.6519 (22.94)	1.0165 (32.79)	.7753 (26.51)
85+	.6821 (10.65)	.7947 (11.50)	.6307 (9.94)	1.2299 (17.75)	.5912 (9.04)
Adjusted R <sup>2</sup>	.1253	.0842	.0675	.0759	.0903
N	201,973	201,763	202,023	201,570	201,864

All equations include mode (2) and date of interview (568) and country (21) dummies. T-statistics in parentheses.

	11-step Good Mental Health	11-step Not Lonely	4-step Depress	4-step Anxious	4-step Worry	4-step Little Pleasure
25-34	.0383 (2.13)	.0792 (3.28)	-.0380 (5.08)	-.0221 (2.92)	-.0328 (4.27)	-.0367 (4.71)
35-44	.0598 (3.23)	.1980 (7.96)	-.0868 (11.23)	-.0579 (7.40)	-.0919 (11.59)	-.0804 (10.00)
45-54	.1683 (8.59)	.2964 (11.27)	-.1410 (17.26)	-.1523 (18.40)	-.1574 (18.78)	-.1238 (14.56)
55-64	.4957 (24.20)	.6244 (22.72)	-.2226 (26.06)	-.2882 (33.31)	-.2564 (29.26)	-.1877 (21.12)
65-74	.9973 (46.05)	1.1459 (39.44)	-.3528 (39.08)	-.4663 (50.99)	-.3916 (42.28)	-.2925 (31.14)
75-84	1.3279 (48.11)	1.4622 (39.49)	-.3941 (34.25)	-.5449 (46.71)	-.4313 (36.54)	-.3141 (26.22)
85+	1.3483 (21.86)	1.3542 (16.37)	.3639 (14.15)	-.5576 (21.41)	.4360 (16.54)	-.2351 (8.78)
Adjusted R <sup>2</sup>	.1465	.0545	.0874	.1022	.1148	.1093
N	202,072	202,065	201,737	201,691	201,773	201,558

All equations include mode (2) and date of interview (568), female and country (21) dummies. T-statistics in parentheses.

Q1. *Cantril*. “On which step of the ladder would you say you personally feel you stand at this time? 0 = Worst possible 10 = Best possible?”

Q2. *Life satisfaction*. How satisfied are you with your life as a whole these days? 0=not at all satisfied...10-completely satisfied?”

Q3. *Happiness*. “In general how happy or unhappy do you feel 0 extremely unhappy...10 extremely happy?”

Q4. *Worthwhile*. “The things you do in your life are worthwhile 0=no at all worthwhile...10 Completely worthwhile?”

Q5. *Relationships*. “Your relationships are as satisfying as you want them to be.. 0 strongly disagree..10 strongly agree?”

Q6. *Good Mental Health*. “How would you rate your mental health.0=poor-10=excellent?”

Q7. *Not lonely*. “How often do you feel lonely 0=always to 10= never?”Have you been bothered in last two weeks by Q8. *Depress*. “Feeling down, depressed or hopeless?”Q9. *Anxious*. “Feeling nervous, anxious or on edge?”Q10. *Little pleasure*. Little interest or pleasure in doing thingsQ11. *Worrying*. Not Being

Able to Stop or Control Worrying4=nearly every day; 3=more than half the days; 2=several days 1= not at all

Table 8. Well-being positive affect for eight countries with *only* web sampling methods

	Cantril	Life	Happiness	Relationships	Worthwhile
25-34	.0715 (2.39)	.0971 (2.87)	.0626 (2.02)	.1464 (3.86)	.1341 (3.94)
35-44	.0038 (0.13)	.0798 (2.38)	.0343 (1.12)	.0026 (0.07)	.1758 (5.21)
45-54	.0494 (1.68)	.1502 (4.52)	.1116 (3.66)	.0872 (2.34)	.2860 (8.55)
55-64	.3566 (12.33)	.4801 (14.65)	.4358 (14.5)	.4352 (11.88)	.6220 (18.87)
65-74	.8354 (29.10)	1.0272 (31.60)	.9213 (30.9)	.9059 (24.92)	1.0096 (30.87)
75-84	1.0656 (33.12)	1.2780 (35.09)	1.1651 (34.9)	1.2560 (30.84)	1.1932 (32.56)
85+	1.1252 (19.36)	1.2730 (19.31)	1.1540 (19.1)	1.4772 (20.05)	1.0270 (15.48)
Adjusted R <sup>2</sup>	.1513	.1107	.1153	.0921	.1390
Days	543	543	543	543	543
N	101,494	101,300	101,452	101,218	101,446

	Good mental health	Not lonely	Depress	Anxious	Worry	Little Pleasure
25-34	.0715 (2.39)	.0971 (2.87)	-.1283 (9.35)	-.1095 (7.91)	-.1645 (11.93)	-.1164 (8.20)
35-44	.0038 (0.13)	.0798 (2.38)	-.2150 (15.83)	-.2026 (14.77)	-.2721 (19.93)	-.1832 (13.02)
45-54	.0494 (1.68)	.1502 (4.52)	-.2975 (22.09)	-.3508 (25.80)	-.3759 (27.77)	-.2405 (17.25)
55-64	.3566 (12.33)	.4801 (14.65)	-.4051 (30.54)	-.5240 (39.13)	-.5029 (37.72)	-.3215 (23.41)
65-74	.8354 (29.10)	1.0272 (31.60)	-.5424 (41.21)	-.7089 (53.35)	-.6389 (48.30)	-.4392 (32.23)
75-84	1.0656 (33.12)	1.2780 (35.09)	-.5900 (40.00)	-.7790 (52.29)	-.6779 (45.73)	-.4607 (30.17)
85+	1.1252 (19.36)	1.2730 (19.31)	-.5527 (20.72)	-.8006 (29.72)	-.6871 (25.66)	-.3858 (3.97)
Adjusted R <sup>2</sup>	.1513	.1107	.0757	.1089	.0854	.0731
Days	543	543	543	543	543	543
N	101,494	101,517	101,345	101,291	101,437	101,311

Countries are Australia, Germany, Hong Kong, Japan, Spain, Sweden, UK and USA. Equations, also include country dummies and day of interview dummies. T-statistics in parentheses.

Table 9. Well-being by survey method telephone versus web-based – positive affect for fourteen countries

	Cantril		Life		Happiness	
	Telephone	Web	Telephone	Web	Telephone	Web
25-34	-.3603 (9.78)	.0102 (0.33)	-.3093 (8.03)	.0778 (2.36)	-.3500 (9.86)	.0089 (0.30)
35-44	-.5842 (14.95)	.0714 (2.20)	-.5578 (13.65)	.1332 (3.85)	-.6109 (16.22)	.0531 (1.67)
45-54	-.6471 (14.74)	.1100 (3.03)	-.6355 (13.84)	.1174 (3.04)	-.6889 (16.28)	.0357 (1.01)
55-64	-.5447 (10.70)	.2051 (4.82)	-.5338 (10.03)	.1999 (4.41)	-.6906 (14.08)	.0420 (1.01)
65-74	-.4798 (7.33)	.4507 (7.07)	-.4768 (6.97)	.2876 (4.23)	-.5657 (8.97)	.0897 (1.44)
75-84	-.5466 (5.15)	.4913 (3.29)	-.3531 (3.18)	.1490 (0.94)	-.6328 (6.18)	.0108 (0.07)
85+	-.6695 (2.55)	.0534 (0.12)	.3685 (1.35)	.1128 (0.23)	.6514 (2.59)	.2001 (0.45)
Adjusted R <sup>2</sup>	.0714	.0475	.0783	.0792	.0478	.0441
Days	352	369	352	369	352	369
N	59,970	40,509	60,800	40,383	60,097	40,474
	Satisfied relationships		Worthwhile			
	Telephone	Web	Telephone	Web		
25-34	-.0499 (1.46)	.0634 (1.79)	-.1768 (5.09)	.1350 (4.36)		
35-44	-.0382 (1.06)	.1552 (4.16)	-.2714 (7.36)	.3086 (9.47)		
45-54	-.0355 (0.87)	.1749 (4.19)	-.4262 (10.28)	.3495 (9.61)		
55-64	.0068 (0.15)	.3106 (6.36)	-.4225 (8.79)	.4681 (10.99)		
65-74	.0860 (1.42)	.4720 (6.45)	-.3999 (6.46)	.5219 (8.18)		
75-84	-.0868 (0.88)	.5910 (3.45)	-.5391 (5.36)	.3859 (2.58)		
85+	.2165 (0.89)	.3543 (0.68)	-.8333 (3.39)	.6306 (1.39)		
Adjusted R <sup>2</sup>	.0182	.0376	.0495	.0426		
Days	352	369	352	369		
N	60,029	40,323	59,955	40,463		

Countries are Argentina, Brazil, Egypt, India, Indonesia, Israel, Kenya, Mexico, Nigeria, Philippines, Poland, South Africa, Tanzania and Turkey. Equations also include gender and country dummies and day of interview dummies. T-statistics in parentheses.

Table 10. Well-being by survey method telephone versus web-based – positive and negative affect

	Good mental health		Lonely	
	Telephone	Web	Telephone	Web
25-34	-.1549 (5.27)	.2785 (8.71)	-.1047 (2.45)	.2877 (6.60)
35-44	-.3283 (10.53)	.5037 (14.99)	-.1354 (2.98)	.5503 (12.01)
45-54	-.4353 (12.43)	.6588 (17.56)	-.1697 (3.33)	.6190 (12.10)
55-64	-.4929 (12.14)	.8202 (18.65)	-.0559 (0.95)	.7449 (12.43)
65-74	-.5776 (11.07)	.8479 (12.86)	.0182 (0.24)	1.0271 (11.44)
75-84	-.6329 (7.47)	.6399 (4.15)	-.1028 (0.83)	.8988 (4.26)
85+	-.9124 (4.37)	.6813 (4.15)	.2717 (0.89)	1.1401 (1.74)
Adj R <sup>2</sup>	.0644	.1035	.0284	.0766
Days	352	369	352	369
N	60,064	40,500	60,079	40,469

	Depress		Anxious		Worry		Little Pleasure	
	Telephone	Web	Telephone	Web	Telephone	Web	Telephone	Web
25-34	.0607 (4.89)	-.1203 (8.49)	.0584 (4.67)	-.0858 (5.93)	.0681 (5.29)	-.0886 (5.97)	.0677 (5.15)	-.1211 (8.37)
35-44	.1059 (8.04)	-.2654 (17.8)	.1256 (9.45)	-.2176 (14.30)	.0967 (7.07)	-.2265 (14.52)	.1085 (7.77)	-.2597 (17.06)
45-54	.1100 (7.43)	-.3466 (20.8)	.1115 (7.47)	-.3289 (19.36)	.0972 (6.33)	-.3145 (18.06)	.1067 (6.80)	-.3392 (19.95)
55-64	.0887 (5.17)	-.4089 (20.9)	.0743 (4.29)	-.4212 (21.15)	.0574 (3.22)	-.3616 (17.72)	.0661 (3.63)	-.3842 (19.29)
65-74	.0705 (3.19)	-.4315 (14.75)	.0549 (2.46)	-.4523 (15.17)	.0508 (2.22)	-.4454 (14.57)	.0768 (3.28)	-.3960 (13.28)
75-84	.1637 (4.56)	-.4115 (5.99)	.0291 (0.81)	-.5691 (8.13)	.0718 (1.93)	-.4008 (5.57)	.1108 (2.89)	-.4039 (5.77)
85+	.0637 (0.72)	.4305 (2.07)	-.0272 (0.30)	-.3798 (1.79)	.0274 (0.30)	-.2877 (1.32)	.1412 (1.49)	-.2370 (1.12)
Adj R <sup>2</sup>	.0408	.1323	.0497	.1536	.0504	.1766	.0472	.1301
Days	352	369	352	369	352	369	352	369
N	59,955	40,437	59,956	40,444	59,883	40,453	59,866	40,411

Countries are Argentina, Brazil, Egypt, India, Indonesia, Israel, Kenya, Mexico, Nigeria, Philippines, Poland, South Africa, Tanzania and Turkey. Equations also include gender and country dummies and day of interview dummies. T-statistics in parentheses.

Table 11. Who takes survey via the web.

	Unweighted	Weighted
25-34	-.0185 (5.66)	-.0134 (3.93)
35-44	-.0529 (15.11)	-.0478 (13.20)
45-54	-.0891 (23.11)	-.0803 (20.63)
55-64	-.1230 (27.68)	-.1025 (24.05)
65-74	-.1851 (28.56)	-.1733 (31.39)
75-84	-.3202 (29.97)	-.2799 (31.92)
85+	-.3949 (15.22)	-.3057 (15.21)
Female	-.0081 (3.67)	-.0099 (4.39)
Small town or village	.0242 (9.06)	.0238 (8.65)
Large city	.0560 (18.30)	.0567 (18.17)
Suburb of a large city	.0489 (12.53)	.0390 (9.89)
Self-employed	-.0449 (15.00)	-.0464 (15.18)
Retired	-.0554 (9.28)	-.0558 (10.52)
Student	.0254 (5.21)	.0370 (7.15)
Homemaker	-.0487 (13.62)	-.0453 (12.16)
Unemployed	-.0301 (8.18)	-.0292 (7.77)
Secondary	.0977 (34.97)	.1200 (46.30)
College	.1468 (37.14)	.1728 (44.62)
Non migrant	-.0335 (4.43)	-.0334 (4.49)
Constant	.7813	.7370
Adjusted R <sup>2</sup>	.5852	.5592
N	99,418	99,418

Countries are Argentina, Brazil, Egypt, India, Indonesia, Israel, Kenya, Mexico, Nigeria, Philippines, Poland, South Africa, Tanzania and Turkey. Equations also include country dummies. T-statistics in parentheses. Global Flourishing Survey, 2022-2024

Table 12. Cantril regressions in GWP, 2018-2023 based on mode of sampling coefficient and t-value on age 18-24 variable.

	Both		Telephone	Face-to face
	Face-to-face	Telephone		
18-24	.5637 (56.14)	.3531 (23.72)	.1384 (10.24)	.4900 (28.12)
Adj R <sup>2</sup>	.1204	.1158	.1067	.1129
N	385,863	145,621	200,285	126,985

Equations include gender and year dummies. Cols 1 & 2= see appendix 5.

Col 3= Australia; Austria; Belgium; Canada; Cyprus; Denmark; Finland; France; Germany; Hong Kong; Iceland; Iran; Ireland; Italy; Japan; Kuwait, Luxembourg; Malta; Mauritius, Netherlands; New Zealand; Northern Cyprus; Norway; Portugal; Saudi Arabia; Slovenia; South Korea; Spain; Sweden; Switzerland; Taiwan; UAE, UK and USA.

Col 4= Afghanistan; Armenia; Azerbaijan; Belarus; Botswana; Burundi; Chad; Pakistan; Comoros; Congo (Kinshasa); Congo Brazzaville; Eswatini; Guatemala; Haiti; Honduras; Lesotho; Liberia; Libya; Madagascar; Malawi; Maldives; Mali; Mauritania; Mozambique; Niger; Palestine; Panama; Puerto Rico; Rwanda; Senegal; Sierra Leone; The Gambia; Togo; Turkmenistan and Yemen.

Table 13. Well-being regressions, Global Minds, 2020-2024.

a) Pooled country regressions

	MHQ		Cantril	
18-24		-56.883 (306.77)		-1.397 (30.73)
25-34	18.858 (74.38)		.378 (5.71)	
35-44	38.492 (154.20)		.957 (13.82)	
45-54	55.653 (232.83)		1.387 (20.11)	
55-64	70.737 (306.66)		1.808 (27.23)	
65-74	85.546 (336.76)		2.260 (32.21)	
75-84	97.074 (270.73)		2.414 (26.86)	
85+	101.253 (123.55)		2.295 (11.63)	
Constant	30.698	101.368	3.703	5.176
Adj R <sup>2</sup>	.2084	.1339	.1482	.0968
N	895,075	895,075	12,335	12,335

b) Other 9-step variables

	Self-worth & confidence	Suicidal thoughts	Fear and anxiety
25-34	.5260 (63.37)	-.8823 (94.43)	-.2905 (31.91)
35-44	1.0944 (133.89)	-1.5375 (167.13)	-.7739 (86.33)
45-54	1.5354 (196.16)	-1.8984 (215.51)	-1.1933 (139.02)
55-64	1.9556 (258.90)	-2.1982 (258.59)	-1.5772 (190.39)
65-74	2.4060 (289.24)	-2.4958 (266.60)	-1.9685 (215.78)
75-84	2.7780 (236.59)	-2.7190 (205.77)	-2.3411 (181.81)
85+	2.9295 (109.16)	-2.8145 (93.20)	-2.5756 (87.52)
Constant	4.294	4.162	6.075
Adj R <sup>2</sup>	.1831	.1401	.1159
N	895,062	895,049	895,051

Equations include female, country and all except Cantril include year dummies. T-statistics in parentheses.

Table 14. Coefficient on age 18-24 variable for 169 Countries. Source: Global Minds, 2020-2024

Country	Coefficient	t	N	Country	Coefficient	t	N
Afghanistan	-54.76	10.21	1,060	Denmark	-60.96	7.40	372
Algeria	-37.79	49.41	50377	Djibouti	-105.92	2.85	48
Andorra	-74.28	10.34	475	Dominica	-68.29	5.05	261
Angola	-34.94	29.77	14,272	Dominican Rep	-62.68	29.44	8,086
Antigua & Barbuda	-65.61	5.11	241	Ecuador	-79.15	56.23	13,142
Argentina	-65.63	92.80	79,157	Egypt	-40.03	66.25	86,143
Armenia	-64.55	9.46	2,406	El Salvador	-72.91	36.55	10,588
Australia	-58.52	57.69	27,606	Eq Guinea	-68.28	2.30	40
Austria	-60.74	10.46	1,973	Estonia	-39.37	2.51	87
Azerbaijan	-54.47	6.05	1,408	Eswatini	-51.63	2.19	38
Bahamas	-96.41	4.50	91	Ethiopia	-59.88	3.04	100
Bahrain	-51.70	5.42	298	Fiji	-76.04	3.09	58
Bangladesh	-38.79	25.48	11,299	Finland	-59.59	11.67	1,751
Barbados	-73.65	3.48	92	France	-70.56	84.30	39,927
Belarus	-40.57	9.21	2,666	Georgia	-79.44	8.70	2,043
Belgium	-59.40	20.72	9,088	Germany	-51.19	40.09	23,701
Belize	-73.34	4.11	133	Ghana	-49.16	6.03	1,176
Benin	-62.09	3.69	86	Greece	-70.45	8.04	269
Bhutan	-65.19	4.62	136	Grenada	-121.33	4.57	61
Bolivia	-67.77	47.49	12,790	Guatemala	-70.75	47.57	15,465
Bosnia/Herzegovina	-45.28	2.31	100	Guinea-Bissau	-109.85	3.53	30
Botswana	-74.91	4.53	136	Haiti	-69.92	3.19	100
Brazil	-66.88	64.93	54,378	Honduras	-69.42	34.81	9,956
Brunei	-47.53	1.87	65	Hong Kong	-66.08	14.86	870
Bulgaria	-75.37	6.00	145	Hungary	-44.72	4.44	217
Burundi	-56.80	1.94	40	Iceland	-63.70	5.20	220
Cabo Verde	-48.37	2.00	69	India	-51.25	139.54	186,479
Cambodia	-51.26	3.07	120	Indonesia	-55.65	9.17	539
Cameroon	-23.65	16.55	8,591	Iran	-56.32	6.42	244
Canada	-64.74	66.22	36,530	Iraq	-44.51	50.65	27,194
CAR	-55.32	3.09	117	Ireland	-59.33	25.14	10,313
Chad	-44.58	2.32	99	Israel	-53.80	34.47	14,807
Chile	-79.27	39.79	17,341	Italy	-35.62	19.02	27,178
China	-70.73	22.10	1,916	Jamaica	90.40	6.65	301
Colombia	-59.34	88.04	51,197	Japan	-48.94	15.25	2,295
Comoros	-62.68	2.75	56	Jordan	-42.46	32.53	26,005
Rep of Congo	-43.41	6.87	473	Kazakhstan	-39.44	5.91	842
DR Congo	-30.17	19.78	7,529	Kenya	-39.34	17.95	8,273
Costa Rica	-62.35	22.74	6,842	Kiribati	-148.36	1.81	21
Côte d'Ivoire	-37.03	24.63	8,642	Korea North	-46.10	1.86	59
Croatia	-46.71	2.36	95	Korea South	-40.56	14.36	3,203
Cuba	-59.43	5.04	357	Kuwait	-70.05	8.20	360
Cyprus	-45.03	2.22	99	Kyrgyzstan	-41.42	13.95	3,249
Czechia	-51.41	4.61	161	Latvia	-25.34	1.52	109



Country	Coefficient	t	N	Country	Coefficient	t	N
Lebanon	-45.78	3.86	250	Samoa	-140.41	3.26	17
Libya	-65.73	6.49	231	San Marino	-95.83	2.44	39
Liechtenstein	-81.52	1.61	25	Saudi Arabia	-52.17	33.61	14,234
Lithuania	-55.92	3.23	98	Senegal	-32.81	1.71	60
Luxembourg	-99.40	5.83	83	Seychelles	-127.51	2.11	23
Madagascar	-45.83	2.68	82	Singapore	-67.84	38.87	7,918
Malawi	-67.54	1.50	56	Slovakia	-59.37	4.17	77
Malaysia	-76.46	23.79	5,133	Slovenia	-50.67	2.25	73
Maldives	-67.27	3.03	70	Solomon Islands	-101.10	2.04	30
Malta	-42.81	1.80	64	South Africa	-52.75	52.60	37,542
Marshall Islands	-165.21	1.66	20	South Sudan	-52.76	2.41	91
Mauritania	-80.61	5.13	92	Spain	-51.78	69.05	45,604
Mauritius	-58.83	2.89	85	Sri Lanka	-52.55	18.48	7,647
Mexico	-68.42	134.89	91,380	Sudan	-31.36	8.61	1,572
Moldova	-42.83	3.18	711	Sweden	-60.43	8.04	574
Monaco	-82.43	2.99	72	Switzerland	-51.10	8.52	1,848
Mongolia	-79.00	3.65	108	Syria	-49.34	9.72	890
Montenegro	-80.94	3.12	54	Tajikistan	44.21	4.56	496
Morocco	-33.63	31.22	34,032	Tanzania	-19.37	8.38	6,202
Mozambique	31.29	21.46	11,962	Thailand	-78.74	6.96	201
Myanmar	-62.64	4.54	139	Togo	-84.65	1.94	31
Namibia	-68.02	2.26	81	Trinidad/Tobago	-72.92	13.69	5,826
Nepal	-50.52	5.84	416	Tunisia	-37.28	20.65	20,611
Netherlands	-45.84	6.62	484	Turkey	-43.54	6.35	570
New Zealand	-67.65	37.23	12,296	Tuvalu	-119.30	2.94	48
Nicaragua	-68.23	36.22	9,671	Uganda	-46.92	3.28	294
Niger	-84.65	3.55	91	Ukraine	-47.03	12.74	8,099
Nigeria	-58.53	46.06	28,621	UAE	-49.32	21.10	7,342
North Macedonia	-44.88	1.70	49	UK	-49.42	65.76	62,422
Norway	-79.24	6.79	255	USA	-65.43	118.36	112,702
Oman	-59.41	6.08	306	Uruguay	-64.86	22.94	12,023
Pakistan	-42.85	49.27	46,411	Uzbekistan	-39.08	10.04	3,016
Panama	-70.77	26.76	6,085	Venezuela	-61.70	89.21	62,492
Paraguay	-54.40	33.61	13,102	Vietnam	-62.19	6.42	229
Peru	-78.63	86.18	25,706	Yemen	-19.71	23.54	31,487
Philippines	-58.67	43.14	24,798	Zambia	-71.88	2.83	82
Poland	-55.35	7.57	412	Zimbabwe	-39.76	13.50	6,406
Portugal	-51.94	13.72	6,692				
Qatar	-34.81	2.86	203				
Romania	-70.81	8.31	347				
Russia	-25.80	11.04	2,932				
Rwanda	-81.12	2.60	43				
St Kitts & Nevis	-184.48	3.34	18				
St Lucia	-128.54	3.49	25				

Equations include gender and year dummies.

Chart 1a. US Male Suicide rates

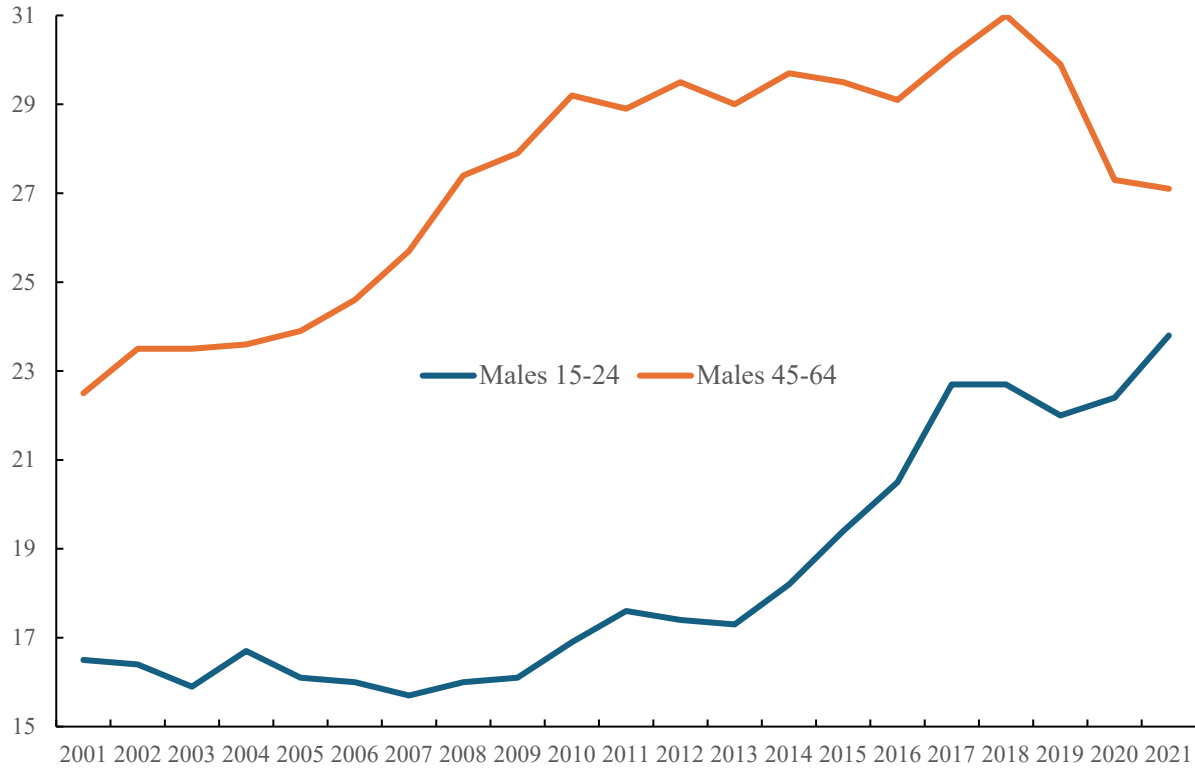


Chart 1b. US Female suicide rates

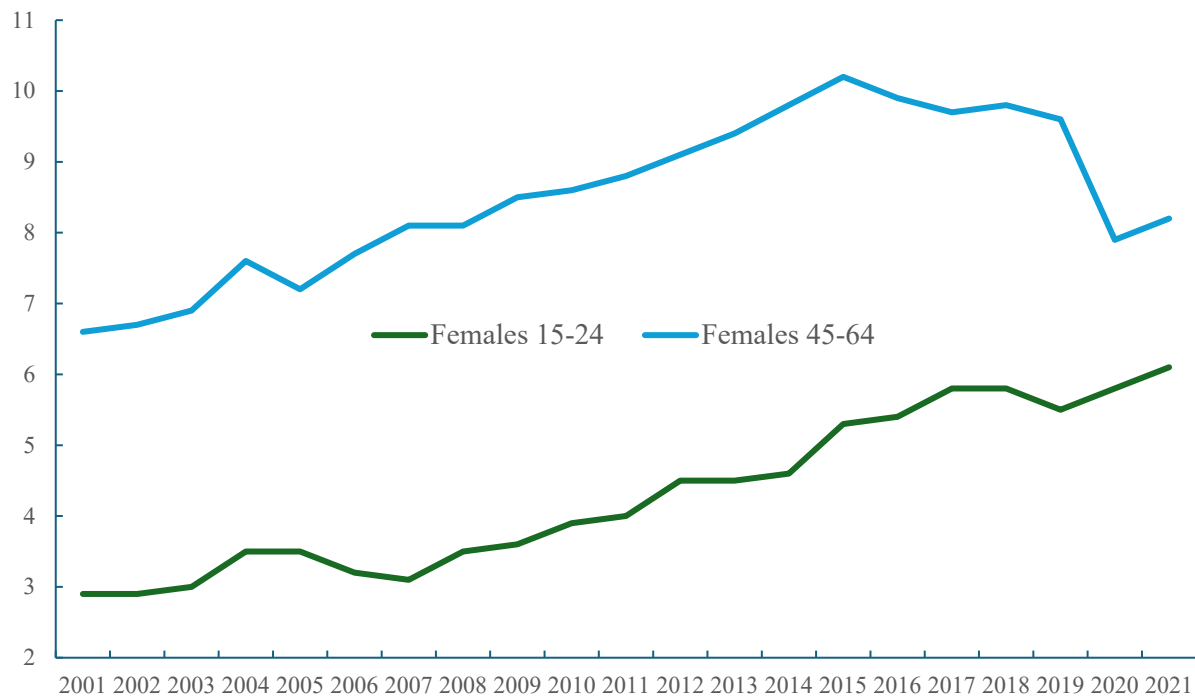
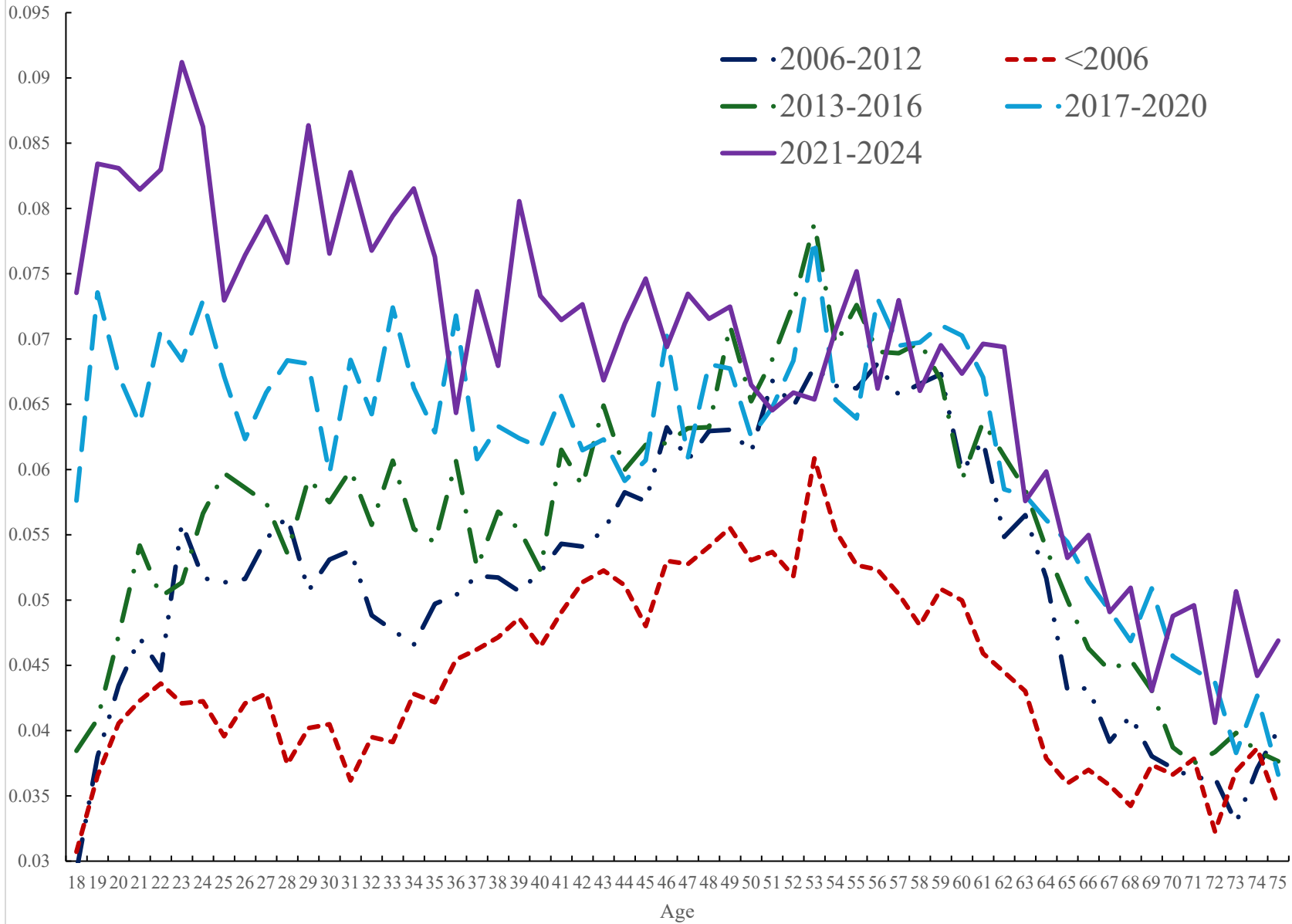


Chart 2. Despair by Age in the USA from the BRFSS



Appendix Table 1. Country distribution of sample sizes by sampling method, and % age 18-24 - Global Flourishing Study, 2022-2024.

a)	Other	Telephone	Web	Total		Other	Telephone	Web	Total
Argentina	0	1,451	5,273	6,724	Nigeria	550	5,609	668	6,827
Australia	0	0	3,844	3,844	Philippines	0	4,174	1,118	5,292
Brazil	0	1,265	11,939	13,204	Poland	0	625	9,764	10,389
Egypt	0	4,508	221	4,729	South Africa	0	2,010	641	2,651
Germany	0	0	9,506	9,506	Spain	0	0	6,290	6,290
Hong Kong	0	0	3,012	3,012	Sweden	0	0	15,068	15,068
India	0	12,549	216	12,765	Tanzania	0	8,790	285	9,075
Indonesia	0	3,620	3,372	6,992	Turkey	0	840	633	1,473
Israel	0	2,743	926	3,669	United Kingdom	0	0	5,368	5,368
Japan	0	542	20,001	20,543	United States	0	0	38,312	38,312
Kenya	0	9,917	1,472	11,389	Total	550	60,202	142,146	202,898
Mexico	0	1,559	4,217	5,776					
b) % age 18-24	Census	CATI unweighted	CATI weighted	CAWI unweighted	CAWI weighted	# age 18-24			
Argentina	14	4	6	15	20	868			
Australia	11			5	9	175			
Brazil	14	5	5	21	17	2587			
Egypt	19	15	20	22	32	706			
Germany	8			7	9	698			
Hong Kong	7			9	7	282			
India	17	18	20	40	34	2335			
Indonesia	16	10	10	25	28	1182			
Israel	16	13	13	22	23	575			
Japan	8	6	7	7	8	1584			
Kenya	25	30	23	44	37	3657			
Mexico	17	6	7	24	22	1126			
Nigeria	26	25	22	23	24	1699			
Philippines	20	12	15	34	37	861			
Poland	8	4		8	10	836			
South Africa	15	17	14	26	28	497			
Spain	9			10	9	630			
Sweden	10			12	10	1824			
Tanzania	25	20	25	24	31	1781			
Turkey	14	12	10	25	25	259			
United Kingdom	10			5	9	245			
United States	12			1	7	296			

Column 1 is from the Census Bureau International Database - [https://www.census.gov/data-tools/demo/idb/#/dashboard?dashboard\\_page=country&COUNTRY\\_YR\\_ANIM=2025](https://www.census.gov/data-tools/demo/idb/#/dashboard?dashboard_page=country&COUNTRY_YR_ANIM=2025)

Appendix Table. 2. Global Flourishing Survey – coefficients on age 18-24 variable

A) Web sample	Cantril	Life	Happy	Not Lonely	Depressed	N
Argentina	0	0	0	-	+	5,273
Australia	-	-	-	-	+	3,844
Brazil	-	-	-	-	+	11,939
Egypt	0	-	-	0	0	221
Germany	0	-	-	-	+	9,506
Hong Kong	-	-	0	-	0	216
India	0	-	-	-	+	3,372
Indonesia	0	-	-	-	+	926
Israel	0	0	0	0	+	20,001
Japan	-	-	-	-	+	1,472
Kenya	+	+	+	0	-	4,217
Mexico	-	-	-	-	+	668
Nigeria	0	0	0	-	+	1,118
Philippines	+	0	0	-	+	9,764
Poland	-	+	+	+	-	641
South Africa	0	0	0	-	0	6,290
Spain	0	-	-	-	+	285
Sweden	-	-	-	0	+	633
Tanzania	0	0	0	-	0	5,368
Turkey	0	0	0	-	+	38,312
United Kingdom	-	-	-	-	+	15,068
United States	-	-	-	-	+	3,012
b) Telephone	Cantril	Life	Happy	Not Lonely	Depressed	N
Argentina	0	-	-	-	+	1,451
Brazil	0	0	0	0	+	1,265
Egypt	+	+	+	-	+	4,508
India	+	+	+	+	-	12,549
Indonesia	0	0	0	-	+	3,620
Israel	+	+	+	+	-	2,743
Japan	-	-	-	-	+	542
Kenya	+	+	+	+	-	9,917
Mexico	0	0	0	0	0	1,559
Nigeria	0	0	0	0	0	5,609
Philippines	+	+	+	-	0	4,174
Poland	+	0	0	0	0	625
South Africa	0	0	0	0	+	2,010
Tanzania	+	+	+	+	-	8,790
Turkey	0	0	0	-	+	840

0 means insignificant, + mean positive and significant – means negative and significant based on  $T > 1.5$ .

Appendix Table 3. Gallup World Poll Cantril for countries with both face-to-face & telephones age 18-24 effects

	Face-to-face	N	Telephone	N
Albania	1.4672 (12.39)	4980	1.2198 (5.82)	986
Algeria	-.0273 (0.33)	2909	-.0503 (0.49)	2003
Argentina	.6774 (6.87)	4065	.4474 (2.91)	2000
Bangladesh	.5522 (7.30)	6860	.0199 (0.12)	999
Benin	.3946 (4.45)	4922	-.2432 (1.70)	1031
Bolivia	.6813 (8.53)	3917	.4745 (4.72)	1998
Bosnia/Herz	1.1658 (11.22)	4069	1.1604 (9.11)	1980
Brazil	.4643 (5.03)	3998	.0096 (0.07)	2005
Bulgaria	1.4607 (10.23)	4028	.6053 (3.65)	1999
Burkina Faso	.4257 (4.67)	3810	.3163 (1.91)	990
Cambodia	.5351 (5.01)	4797	.2767 (1.82)	992
Cameroon	.4486 (5.57)	4885	.5416 (3.29)	994
Chile	.6023 (6.39)	5044	.3518 (1.87)	999
China	.4393 (4.90)	7129	.1717 (2.66)	6880
Colombia	.7056 (6.72)	3948	.1237 (0.98)	1996
Costa Rica	.4218 (4.03)	3972	.4102 (2.94)	1984
Croatia	.8346 (9.67)	4059	.9345 (6.03)	1986
Czechia	.9448 (5.56)	982	.1379 (1.34)	3803
Dominican R	1.0082 (8.85)	4969	.6155 (3.06)	1000
Ecuador	.9396 (9.95)	3959	.8803 (7.64)	1990
Egypt	.2426 (3.69)	6056	.3154 (1.64)	981
El Salvador	1.0236 (11.09)	4934	.5400 (3.34)	994
Estonia	.6367 (4.41)	2072	.2085 (1.82)	4016
Ethiopia	.4450 (6.50)	5141	.1528 (1.03)	998
Gabon	.8079 (8.93)	4031	.4125 (3.75)	1976
Georgia	1.3166 (12.55)	5030	.7249 (4.06)	996
Ghana	.1631 (2.17)	4971	-.1154 (0.65)	911
Greece	1.1839 (10.08)	3075	.3080 (2.29)	2807
Guinea	.0717 (0.78)	4818	-.0711 (0.49)	994
Hungary	1.4544 (8.00)	2073	.7686 (5.87)	4007
India	.3644 (8.68)	24484	-.1627 (1.73)	3063
Indonesia	.6367 (7.89)	6133	.3049 (1.89)	1054
Iraq	.5374 (7.16)	5176	.7368 (4.03)	989
Israel	.4225 (6.99)	5097	.8479 (4.82)	1056
Ivory Coast	.4878 (5.43)	4894	.1389 (0.82)	999
Jamaica	.2491 (1.14)	1482	.4844 (1.92)	496
Jordan	1.1504 (10.91)	3990	.7775 (5.14)	2003
Kazakhstan	.2556 (3.22)	5021	.1522 (0.89)	990
Kenya	.6362 (7.39)	4967	.1574 (0.98)	1004
Kosovo	.7593 (9.21)	5066	.9771 (5.64)	998
Kyrgyzstan	.4984 (6.74)	5033	.5070 (3.04)	988
Laos	.0494 (0.62)	5596	-.4444 (2.87)	922
Latvia	.4223 (3.31)	2056	.3465 (3.52)	4007
Lebanon	.6509 (7.22)	4033	.9493 (6.91)	2045
Lithuania	1.2647 (12.43)	3830	.2668 (1.86)	1986
Malaysia	.3797 (4.35)	3982	.2252 (2.11)	1979
Mexico	.0110 (5.79)	5739	.3843 (2.84)	2000
Moldova	1.3044 (14.79)	4995	1.1696 (6.49)	991

Mongolia	.0145 (0.19)	5053	.0339 (0.25)	998
Montenegro	.9488 (9.87)	4063	.5909 (3.12)	996
Morocco	.9796 (9.26)	3723	.2780 (2.19)	1939
Myanmar	.0868 (0.60)	2043	-.0613 (0.84)	3985
Namibia	.3776 (4.85)	4973	.7288 (3.73)	987
Nepal	.6297 (7.28)	5862	.2419 (1.51)	997
Nicaragua	.9759 (10.09)	4942	.3918 (2.64)	994
Nigeria	.1542 (2.22)	6857	.2868 (1.67)	958
North Macedonia	1.0781 (9.35)	4072	1.6967 (11.65)	2014
Paraguay	1.2304 (14.44)	6020	-.0408 (0.24)	999
Peru	.8081 (9.46)	4947	.4174 (2.45)	1003
Philippines	.3704 (4.09)	5074	.2671 (2.67)	1998
Poland	.2047 (2.40)	4038	.0962 (0.60)	2005
Romania	1.2921 (10.26)	4017	.8735 (6.23)	1963
Russia	.6542 (8.13)	6863	.5529 (6.07)	6021
Serbia	1.5239 (13.30)	4052	1.606 (8.73)	1986
Singapore	-.4655 (4.78)	2037	-.0543 (0.58)	3019
Slovakia	.8075 (7.40)	4038	.3081 (2.26)	2002
South Africa	.3199 (3.52)	5054	.2384 (1.79)	1018
Sri Lanka	.6167 (5.84)	4106	.2302 (2.05)	1990
Tajikistan	.4232 (7.69)	7060	.7029 (4.36)	988
Tanzania	.7508 (8.48)	4929	-.1515 (0.90)	992
Thailand	.9307 (8.28)	4875	.2969 (1.86)	1990
Tunisia	.4453 (5.48)	4934	.6651 (3.78)	996
Turkey	.1892 (2.53)	5019	.1382 (1.13)	1983
Uganda	.6509 (7.62)	4936	-.1795 (1.08)	1000
Ukraine	1.5171 (8.42)	2039	1.0123 (7.75)	3954
Uruguay	.5998 (6.18)	5051	-.0838 (0.43)	1000
Uzbekistan	-.0350 (0.39)	5031	.0561 (0.30)	989
Venezuela	.7962 (6.45)	4062	.3083 (2.19)	1994
Vietnam	.3785 (5.55)	4922	.1775 (1.49)	1953
Zambia	.3089 (3.57)	4906	.0145 (0.08)	1021
Zimbabwe	.6124 (7.87)	5064	.7276 (4.71)	999
Telephone				
USA	-.5001 (5.51)	6041		
UK	-.0460 (0,53)	6021		
Australia	-.1687 (1.76)	6036		
Sweden	-.2387 (3.16)	6025		
New Zealand	-.4339 (5.33))	6032		
Canada	-.4745 (5.31)	6063		
Norway	-.2215 (2.89)	6034		
Netherlands	-1.3485 (2.30)	6055		
Denmark	-.1211 (2.03)	6039		
Finland	-.3936 (5.24)	6040		

Equations all include year and female dummies. T-statistics in parentheses.