NBER WORKING PAPER SERIES

THE MENTAL HEALTH OF THE YOUNG IN ASIA AND THE MIDDLE EAST: THE IMPORTANCE OF SELF-REPORTS

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Working Paper 33475
http://www.nber.org/papers/w33475

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

David G. Blanchflower and Alex Bryson would like to thank the United Nations for support. The copyright for all research commissioned by the Human Development Report Office will be held by UNDP. We thank Gytis Greicius for research assistance and Victor Counted, Michael Gurven, Timothy Lomas, Zacc Ritter, Tara Thiagarajan and Tyler VanderWeele for helpful comments. We thank thank the United Nations for financial support The views expressed herein are those of the authors and do not necessarily reflect the views of the National Bureau of Economic Research.

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NBER Working Paper No. 33475
February 2025
JEL No. I31, J13

ABSTRACT

We examine the age profile of subjective wellbeing and illbeing in nine Asian countries (Bangladesh, Hong Kong, India, Indonesia, Japan, Pakistan, Philippines, Singapore, Sri Lanka) and seven Middle Eastern countries (Iraq, Israel, Jordan, Turkey, Saudi Arabia, the UAE and Yemen). We find the relationship between age and reported wellbeing differs according to the way the survey is conducted. In the Gallup World Poll, where the data are collected by interviewers face-to-face or by telephone (computer-aided telephone interviews, or CATI) the young are the happiest and the results are the same across the two survey modes. We find the same result in CATI surveys in the Global Flourishing Survey (GFS) of 2022-2024 in 7 Asian and Middle Eastern (AME) countries. However, when the GFS survey is conducted on the web (computer-aided web interview, or CAWI) wellbeing is u-shaped in age, and is highest among the oldest respondents. If we turn to negative affect measures (loneliness, anxiety, depression, worry) these rise with age using CATI but fall with age using CAWI. We look for survey mode switching in the age coefficient across 40 outcomes. In general, the switch is confined to subjective wellbeing and illbeing metrics. Switching does not occur when respondents are asked about their physical health, bodily pain, unemployment status, drinking and smoking, or personality-related questions. It appears that the mode effect is largely confined to how individuals rate their subjective wellbeing and illbeing. The results are suggestive of social desirability response bias which leads young people to under-report socially undesirable affective states to interviewers.

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1. Introduction

A series of papers indicate there has been a decline in the relative wellbeing of the young across large parts of the globe including the USA (Blanchflower, Bryson and Xu, 2024), the UK (Blanchflower, Bryson and Bell, 2024); Europe (Blanchflower, Bryson, Lepinteur and Piper, 2024) and, to some degree, Latin America (Blanchflower and Bryson, 2024a). Twenge and Blanchflower (2025) find the decline in English speaking countries. Other studies have found the same including Botha et al (2023) and Leigh and Robson (2024) for Australia, Sutcliffe, Ball and Fleming (2023) for New Zealand, Garriguet (2022) for Canada, Krokstad et al (2022), for Norway and Thorisdottir (2021) for Iceland. Although the evidence is less clear-cut for Africa and ex-Soviet Union republics ((Blanchflower and Bryson, 2024b, 2024c).

Until this recent spate of work, the proposition that happiness was U-shaped in age - reaching a nadir at around age 50 – was thought to be an empirical regularity (Blanchflower, 2021). Analogously, the mirror image of that was that unhappiness was hump shaped in age, reaching a peak at around age fifty (Blanchflower, 2020). These patterns were observed in the developing and developed world, applied to men and women, minorities, migrants and non-migrants. The phenomenon also had physical manifestations, including psychiatric admissions, the taking of anti-depressants and even deaths from drug overdoses, suicide and alcohol poisonings: the so-called 'deaths of despair', all of which still peak in midlife. Blanchflower, et al. (2023) documented that more than 600 published papers showed the U-shape in age in well-being. Blanchflower and Graham (2021) argued that it "*is among the most striking, persistent and consistent patterns in social science*". But now the relative decline of wellbeing among the young in the last decade or so is challenging that proposition.

Jean Twenge and co-authors were among the first to point to the declining well-being of the young in the United States (Twenge, 2020; Twenge and Farley, 2021; Udupa, Twenge, McAllister and Joiner, 2023). The work of Jonathan Haidt (2024a) was also influential in proposing that a *great rewiring* has occurred through the spread of the internet and smart phones, and that this may have played an important role in these trends. Haidt's thesis is that the digital revolution may have led to a decline in young people's wellbeing through exposure to smart phones through cyberbullying, body shaming and other forms of social comparison. Rausch and Haidt (2023) argued that the phenomenon was particularly pronounced in English-speaking and Nordic countries, with young women being most affected. It seemed to apply particularly to the young, especially young women. The digital age has been slower coming to parts of the developing world like Africa, potentially helping to explain the results in Blanchflower and Bryson (2024d).

Debate continues regarding the precise role of social media in the declining wellbeing of the young. Some systematic reviews of the literature argue that the associations are weak and are not robust across studies (Valkenburg et al., 2022). Some point to the importance of distinguishing between 'effects' on wellbeing and illbeing (Valkenburg, 2022). Others emphasize methodological problems such as difficulties relying on self-reported social media use (Verbeij et al., 2021) and relying on self-reported mental health. There is also concern as to whether any association implies a causal relationship between social media use and subjective wellbeing - see for example the debate on causality between Odgers (2023) and Haidt (2024).

It turns out the decline in youth well-being had started a few years after the end of the Great Recession. Some commentators start from the premise that declining mental health started during

COVID. Whilst COVID exacerbated the problem (Blanchflower and Bryson, 2022; Blanchflower, Bryson and Xu, 2024), the decline in young people's mental health goes back to the period shortly after the Great Recession of 2008 (Blanchflower and Bryson, 2024e). This is apparent, for instance, in Chart 1 which shows the percentage of young Americans aged 18-24 who were in despair between 1993 and 2023. The figures are derived from the *Behavioral Risk Factor Surveillance Survey* (BRFSS), which is collected by telephone. Despair is defined using the following question, "*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?*". Despair equals 1 when the respondent says 30 days out of 30. Among young men, the rise in despair begins in the years immediately following the Great Recession of 2008 and ticks up again prior to COVID. Among young women, despair trends gently upwards until it takes off in 2014/15, and shoots up again during COVID. By 2023 9.5% of females and 6.6% of US youngsters were in despair

These absolute changes in the mental health of young people in the United States have had a profound effect on the age distribution of despair because, over the same period, the mental health of older people has been relatively stable. The implications are shown in Chart 2 which uses the same BRFSS data but this time shows the age profile of despair and how this has changed. The solid red line shows the familiar hump-shape in illbeing which existed in the period 2013-2016, peaking when people are in their mid-50s. It's very much in keeping with the literature described above. However, comparing the solid red line with the dotted blue line for the most recent period (2021-2024) we see despair has risen markedly among those below age 50 – and more so the younger one is – whereas its incidence among those in their 50s and older has remained fairly constant over time.

In this paper we extend the analysis of trends in wellbeing by age to nine countries in Asia - Bangladesh, Hong Kong, India, Indonesia, Japan, Pakistan, Philippines, Singapore, Sri Lanka - and seven in the Middle East - Iraq, Israel, Jordan, Saudi Arabia, Turkey, the UAE and Yemen. We use three sets of data, focusing primarily on post-COVID data for 2020-2024.

We find the relationship between age and reported wellbeing differs according to the way the survey is conducted. In the Gallup World Poll, where the data are collected by interviewers face-to-face or by telephone (computer-aided telephone interviews, or CATI) the young are the happiest and the results are the same across the two survey modes. We find the same result in CATI surveys in the Global Flourishing Survey (GFS) of 2022-2024 in 7 Asian and Middle Eastern (AME) countries. However, when the GFS survey is conducted on the web (computer-aided web interview, or CAWI) wellbeing is U-shaped in age, and is highest among the oldest respondents. If we turn to negative affect measures (anxiety, depression, worry) these rise with age using CATI but fall with age using CAWI. We look for survey mode switching in the age coefficient across 40 outcomes. It appears that the mode effect is largely confined to how individuals rate their subjective wellbeing and illbeing. The results are suggestive of social desirability response bias which leads young people to under-report socially undesirable affective states to interviewers.

2. Wellbeing in Asia and the Middle East

2.1: Human Development Index and Young People's Happiness Ranked

As background, Table 1 provides information on the ranking of the sixteen AME countries from three sources. The first column uses the United Nations' Human Development Index (HDI) to rank 193 countries. Yemen ranks lowest at #186 and Hong Kong highest at #4. The third column reports gross national income (GNI) per capita for 2022 in U.S. dollars adjusted for purchasing power parity in 2017. Again, Yemen is lowest at just over $1000. Singapore has the highest income.

Column 4 uses data based on Cantril's life satisfaction score from 0-10 averaged across the years 2020-2022 taken from the Gallup World Poll. The data are used to rank happiness among those aged 18-24 in 145 countries/ (taken from the GWP as reported in Marquez et al, 2024). Youngsters in Israel are highest ranked. Again, Yemen is lowest ranked. The final column reports population size with India the largest and five Asian countries with over 100 million population.

Appendix Table B provides UN data on the proportion of individuals using the internet in these countries for the period 2000-2023. In 2015 the US had 75% coverage with many AME countries much lower - Cambodia 6%, Bangladesh 13% - but with a few such as Bahrain (94%), Japan (93%), UAE, (91%), South Korea (90) much higher. By 2022 the US was at 97% with AME countries above 97% in Bahrain, Brunei, Kuwait, Malaysia, Qatar, Saudi Arabia Singapore, South Korea and the UAE. Internet coverage by 2022 was widespread in the AME countries and indeed in every Middle Eastern country it was at least 79%.

2.2: The Age Profile of Wellbeing

Usually the U-shape was estimated by including an age term and an age squared term in a wellbeing equation.[1] Another way is to simply plot well-being by single year of age and fit a line. Alternatively, this can be done in a regression framework with or without controls along with a full set of age dummies and then plot. The expectation is that the age term will be significantly negative, and the age squared term significant and positive giving a U-shape. Differentiating with respect to age, setting to zero and solving obtains the age at which the function minimizes, and in the case of unhappiness, maximizes. In Blanchflower (2021) the number of U-shapes had reached 145 including 31 AME countries.[2] The functions minimize generally around age 50.

Blanchflower and Graham (2021) found inverted U-shapes in age in stress in the Middle East and Asia using the GWP for the period 2005-2019 for 27 AME countries as follows. Countries with hump shapes were - Afghanistan (54); Bahrain (48); Bangladesh (58); Cambodia (57); India (65); Indonesia (37); Iran (46); Iraq (53); Israel (47); Jordan (51); Kuwait (42); Lebanon (50); Mongolia (37); Myanmar (37); Nagorno-Karabakh (40); Nepal (60); Pakistan (68); Palestine (55); Philippines (48); Saudi Arabia (47); Singapore (36); Sri Lanka (54); Suriname (46); Taiwan (37);

[1] Hudomiet, Hurd and Rohwedder (2021) find for the US using the Health and Retirement Surveys that happy people live longer. The authors find that once account is taken of this mortality selection bias happiness slopes down in age from around age 70, driven by two main factors a) death of a spouse and health in the last three years of life. We know little about these sort sorts of selection in other countries. This is the reason why most analysts of the U-shape restricted analysis to those of working age. This seems more appropriate than trying to fit higher order polynomials, including S-shapes and other patterns to the data as some authors (e.g. Laaksonen, 2018), have done.

[2] 31/146 countries are from the Middle East and Asia - Bahrain; Bangladesh; Cambodia; Cameroon; China; Hong Kong; India; Indonesia; Iran; Iraq; Israel; Japan; Jordan; Kuwait; Laos; Malaysia; Maldives; Mauritius; Mongolia; Myanmar; Nepal; Pakistan, Palestine; Philippines; South Korea; Sri Lanka; Syria; Taiwan; Thailand; Turkey; Vietnam and Yemen.

Thailand (48); Turkey (36); United Arab Emirates (49). The numbers in parentheses are where the function maximises – obtained again from including age and its square where the former has a positive sign and the latter a negative.

Pattinasarany (2024) found U-shaped happiness in Indonesia, Thailand, Japan, and South Korea using the Social Well-Being Survey in Asia 2015–2017. In a recent paper Oshio and Shimizutani (2024) using repeated cross-sectional survey data from Japan (2000–2018), China (2003–2021), and the US (2000–2022) and controlled for period and cohort effects. They "*observed U shaped age-happiness curves across the three countries, despite different troughs (at age 58 years in Japan somewhat later than at age 49 years in China and at age 42 years in the US) and curvatures (sharper in Japan and China than in the US)".*

Bauer et al (2016) examined data from the Integrated Values Survey (IVS), the Life in Transition Survey (LITS), and the Russia Longitudinal Monitoring Survey (RLMS), and analyzed the relation between age and subjective well-being in the World Bank's Europe and Central Asia (ECA) region including Turkey and compare it to that in Western Europe. Their results confirm previous studies' findings of a U-shaped relation. Kulkarni et al (2023) and Itaba (2022) found U-shapes for India. Hervé, Mani et al (2025) examined in depression in India between parents and children and found parents had higher levels.[3]

3. Data and Estimation

We now turn to examine evidence from three individual level cross-section micro surveys with data on Asia and the Middle East.

1) Gallup World Poll, 2020-2023 (GWP).
2) Global Flourishing Study, 2022-2024 (GFS).
3) Global Minds, 2020-2025 (GM).

In all cases we present descriptive and regression analyses capturing the age profile of a variety of subjective wellbeing and illbeing measures. The focal point of the analyses are the coefficients and statistical significance of age category dummies in regressions which usually also incorporate a female dummy variable and country and year dummies. We examine survey mode effects by splitting samples into surveys conducted over the telephone and over the internet, where both are available. We rely on the GFS to examine whether the youth dummy (those aged 18-24 years) switches when considering other dependent variables when using the telephone versus the internet. All regression estimates are unweighted and use Ordinary Least Squares (OLS) estimation. We use the most recent data available, mostly pooled over the years 2020-2025 to ensure large sample sizes. We produce country level and pooled estimates across countries.

3.1: Gallup World Poll, 2020-2023 https://www.gallup.com/178667/gallup-world-poll-work.aspx

The Gallup World Poll (GWP) is a survey that has been conducted in over 160 countries since 2005. In countries where a telephone survey is used Gallup purchases telephone samples from

[3] For example, 50% of parents versus 40% for children said they were 'feeling down, depressed or hopeless'.

sample providers and uses random-digit dialing (RDD) to produce nationally representative lists of telephone numbers as a sampling frame. In the developing world, Gallup uses face-to-face interviewing in randomly selected households which take about one hour. Samples are probability based and intended to be nationally representative of the civilian non-institutionalized population aged 15 and older.[4] Achieved sample sizes are usually around 1,000 observations per year in each country.

We examine Cantril life evaluation data from the Gallup World Poll 2020-2023 across 7 Asian countries and 7 from the Middle East. The data file also contains data on date of interview and whether the data was obtained by face-to-face interviews or via the telephone.[5]

3.2: Global Flourishing Study (GFS), 2022 - 2024 https://globalflourishingstudy.com/
Gallup runs the GFS in twenty-two countries including for 7 AME countries - Hong Kong, India, Indonesia, Israel, Japan, the Philippines and Turkey - which are our focus here.[6] We focus here on 11 step Cantril's life ladder, life satisfaction, happiness and worthwhileness plus four negative affect variables – being lonely, anxious, depressed or worried. We then examine many other outcomes including being abused, being in physical pain, smoking, drinking being married and unemployed and many more. Detailed information on the survey's questionnaire development can be found here https://hfh.fas.harvard.edu/files/pik/files/globalflourishingstudy_report.pdf.

The survey methodology is described in the methodological report here https://osf.io/k2s7u GFS adopts what is known as a push-to-web methodology, which means that survey participants are initially asked to complete the survey on the web. In the first year of the survey, where individuals were unable or unwilling to complete the survey on the web, they were offered the survey via telephone. In subsequent waves, Gallup have kept the survey mode fixed to the mode they completed in the first annual survey.[7] This methodology for deploying various survey modes makes it difficult to isolate specific mode effects as they relate to people of different ages, something we return to in the final section of the paper.

The table below shows the unweighted number of respondents in each country responding via telephone and web. In Hong Kong all respondents were via the web and in Japan all but 542 were answering via the web. In India, on the other hand, the data were almost entirely collected by telephone. In the other five countries samples were split more evenly between the telephone and the internet as follows.

	Telephone	Web	Total
Hong Kong	0	3,012	3,012
India	12,549	216	12,765
Indonesia	3,620	3,372	6,992
Israel	2,743	926	3,669
Japan	542	20,001	20,543

[4] For more on Gallup's sampling methodology see https://www.gallup.com/178667/gallup-world-poll-work.aspx
[5] Of the 368,143 observations on Cantril, 603 were collected via the web, 232,128 via face-to-face and 135,412 via the telephone.
[6] Lomas, et al (2024) also used these data to examine life satisfaction and happiness.
[7] Personal communication from Zacc Ritter.

Philippines	4,174	1,118	5,292
Turkey	840	633	1,473
Total	24,468	29,278	53,746

We exploit these differences below and show that the results are very different on how well-being and age are related depending on which of the two sampling methods. We pool the seven countries together for the internet and there are six for the telephone survey sample and then produce separate estimates for each of the eight variables.

3.3: Global Minds, 2020-2025

Global Minds (GM) is an internet-based survey that has been running across multiple countries since 2020, and it takes around 15 minutes to complete. We obtained data from the Global Minds Surveys of 2020-2025 available on application from Sapien Labs (https://sapienlabs.org).[8] We examine Global Minds data, pooled over the years 2020-2024, in 10 countries. We have four from Asia - Bangladesh, India, Pakistan, Philippines - and six from the Middle East - Iraq, Israel, Jordan, Saudi Arabia, UAE and Yemen.[9]

A unique feature of the Global Minds data is their construction of a Mental Health Quotient (MHQ) assessment of people's cognitive and emotional capabilities, calculated on a 300-point scale running from -100 to +200 where more positive scores indicate better mental health.[10] The MHQ contains an aggregate metric of mental wellbeing or mind health (the MHQ) and scores across six domains (Mood & Outlook, Social Self, Adaptability & Resilience, Drive & Motivation, Cognition and Mind-Body Connection) derived from answers to 47 questions. Scores in the normal healthy range spanned from 0 to 200. A negative score suggests poor mental health and is a cause for concern and potentially indicates a need for intervention. In addition, the survey contains various demographic information, activities and habits of daily living; work and family relationships and a life-satisfaction question.

We also examine a 9-step negative affect measure of feelings of sadness, distress and hopelessness. The 1 to 9 scale ranges from 1=never causes me any problems: 5=sometimes causes me difficulties or distress but I can manage and 9=has a constant and severe impact on my ability to function. The data do not allow us to track long run changes in age structure but do allow us to examine the resultant age structure of wellbeing and illbeing since 2020.

4. Results

[8] The most recent report is available here https://mentalstateoftheworld.report/2023_read/

[9] The choice of these individual countries was based on ones with large sample-sizes. The overall samples over time were as follows

	Asia	Middle East
2020	15,881	101
2021	30,834	8,232
2022	77,150	43,873
2023	98,139	36,578
2024	92,634	32,267
2025	6,202	3,687
Total	320,840	124,738

[10] For details of how the MHQ score is constructed see Newson and Thiagarajan (2020) and Bala, Newson and Thiagarajan (2024),

There is evidence that the young have the lowest wellbeing in every one of the 16 AME countries we examine based on data drawn from the internet, but this is not apparent from interviewer obtained data.

4.1. Gallup World Poll, 2020-2023

Table 2 reports country level equations for Cantril's Ladder which control for date off interview plus a gender dummy and shows the age 18-24 coefficient is significantly positive in 28, insignificant in Hong Kong, and significantly negative in Singapore and Saudi Arabia.

In the last two columns we report signs for the (0,1) 18–24-year dummy where the survey was conducted face-to-face or via telephone. It seems survey mode makes little difference on the relationship between well-being and age.

In these GWP data well-being *declines* in age. Indeed, if we include age and its square in a Cantril regression it is apparent the former is significantly negative and the latter significantly positive in a sample of those under the age of 70 in eleven countries, and insignificant in Hong Kong, Saudi Arabia and Turkey.[11] Thus, in the interviewer-based GWP for 2020-2023, the association between age and wellbeing is consistent with the pre pandemic literature that happiness declines in age, at least through midlife. The evidence was the same if face-to-face or telephone surveys were used.

In the next section we are going to show similar survey results where the survey is conducted via telephone, but exactly opposite age patterns when the same survey is conducted on the internet. When we explore many other outcomes, we do not find strong evidence of sign switching with survey mode.

4.2. Global Flourishing Study (GFS), 2022 - 2024 https://globalflourishingstudy.com/

The GFS, also conducted by Gallup, conducts the survey via the internet, if possible, or by telephone if not.[12] It turns out that on positive affect measures, well-being falls in age if an interviewer contacts the respondent via the telephone, but when the data is self-reported via the internet well-being is u-shaped in age and is highest among the old. Turning to negative affect measures (loneliness, anxiety, depression and worry), we find they all rise in age when conducted on the telephone but fall in age when the survey is conducted on the internet.

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[11] The age minima are as follows Bangladesh=41; India=60; Indonesia=61; Iraq=46; Israel=69; Japan=46; Jordan=47; Pakistan=53; Philippines=50; UAE=35 and Yemen=49.

[12] According to the methodology documentation local field partners collected forms of recontact information — email, phone number and WhatsApp ID from participants recruited using a probability-based face-to-face or telephone methodology. Gallup sent an invitation and five reminders to participate in an online survey across all channels by which a respondent consented to receive communications. Shortly after recruitment, typically within one week, respondents received a welcome message providing general information about the study, followed within minutes by the first survey invitation. The first reminder occurred three days later, and subsequent reminders followed every five days. If the invitation cycle concluded in non-response, local field partners made at least three call attempts to confirm participants received the invitations, update any incorrect contact information and encourage survey completion. Respondents received another invitation cycle after this recontact effort. In countries that administered the annual survey via telephone interviewers attempted to complete a telephone survey with participants who said they could not or would not complete it online.

Part a) of Table 3 reports pooled country regressions for all seven of the countries. There are four different positive affect outcomes (Cantril Ladder, life satisfaction, happiness, and worthwhile) all coded from 0 to 10. We run separate regressions for those surveyed via CATI and CAWI. In the telephone surveys, the coefficient on the age 18-24 variable is significantly positive, showing the young are the happiest. However, when interviewed via the internet, wellbeing is more u-shaped. It is higher among those aged 18-24 relative to those aged 25-54, but those aged 55 and over are the happiest.

Part b) repeats the exercise but this time with four negative affect variables – being lonely, anxious, depressed or worried. Here we get diametrically opposite results for the CATI and CAWI results. The young are the least likely to suffer from negative affect when interviewed via CATI, but most likely to be lonely, anxious, depressed and worried when they answer via CAWI.

It is perhaps noteworthy that the other coefficient reported in the models – a dummy variable identifying female respondents – is not sensitive to survey mode, although it is sensitive to the nature of the wellbeing metric. Women are more likely than men to express happiness and satisfaction, and less likely to say they are lonely, regardless of survey mode, but they are also more likely to be anxious, depressed and worried, again, whether the survey is conducted via CATI or CAWI.

We reran the Cantril and anxiety models described above, but this time replace the categorical age variables with single year of age dummies. Charts 3 and 4 plot the relation between well-being and the age coefficients in these models which also contain gender and year dummies. (We do so by adding the individual age coefficients to the constant in the model). Separate regressions are run for the telephone and internet samples.

In the telephone sample in Chart 3 Cantril falls from around age 16 through 35 or so, is broadly flat until around age 52 and then picks up. In the internet sample, Cantril also declines a little through to around age 35 but then rises sharply through age 70. Mean levels of happiness are markedly higher in the internet sample.

Chart 4 repeats the exercise for anxiety. The phone data show anxiety rises a little to around age 36 and then remains flat. The internet data declines steadily in age. What accounts for these large differences both in terms of sample modes and question remains unclear. We show this is not the case in the Global Minds data examined below.

One obvious question is whether the signs on the youth coefficient changes in the same way for other variables. We explore this in Table 4 with 31 additional variables with details provided of each variable in Table 5. We report the results of running regressions with gender and date of interview dummies and country dummies for the same seven countries. The first nine rows summarize regression results for the dependent variables used in Table 3. On the negative affect variables, the youth dummy is negative for telephone surveys, positive for internet surveys. For positive affect variables in rows 5 to 9 we see similar switching: the young are happier on the telephone than older people, but less happy than older people on the web.

We report eight further regressions (#10-#18), including being conventional and uncreative, where the sign switches. Of particular interest is that the sign switches on attendance at religious services for example, which is lower from self-reports.

Part b) of the table contains eight variables (#19-#26) where the young dummy variable is positive and statistically significant, whether the survey is conducted via CATI or CAWI. These include being unemployed and physical health rating.

Part c) reports seven more models (#27-#33) all of which are characterized by significant, negative youth dummies for both CAWI and CATI surveys. These include feeling physical pain.

Finally, in part d), there are a further seven (#34-#40) outcomes where the youth dummy is statistically non-significant in one or other of the surveys.

In broad terms, this analysis suggests that the switching of the youth dummy coefficient is most systematic and most pronounced in relation to questions relating to subjective wellbeing and illbeing.

It turns out that the evidence on the well-being of the young from the Global Minds survey we examine next looks very much like that obtained in the internet samples of the GFS. It is completely different from the evidence in the GWP as well as from the telephone-based samples in the GFS. In Global Minds and the GFS internet surveys, wellbeing rises in age and ill-being declines in age. As with the internet surveys in the GFS we see consistent evidence across negative and positive affect variables that the young are less happy. No paradox.

4.3. Global Minds, 2020-2025

Table 6 reports the results of estimating MHQ equations by country that include seven age dummies with the 18-24 years of age variable as the excluded category. In all of the 10 country equations - 4 for Asia and 6 for the Middle East - MHQ rises with age. This is consistent with the internet-based findings from the GFS above.

Table 7 estimates separate equations by country for a negative affect variable capturing respondents' feelings of sadness, distress and hopelessness. The results all look remarkably similar again across the ten countries. In all cases ill-being declines significantly in age.

The results from the positive and negative affect variables are consistent, including the fact that females have lower MHQ scores and more feelings of sadness, distress and hopelessness everywhere. This contrasts with the findings for the GFS survey where females report higher levels of both well-being and ill-being. For a discussion of female effects in wellbeing see Blanchflower and Bryson (2023, 2024c, 2024d).

Finally, we report new Global Minds data on the well-being of youngsters ages 13-17 in two major countries – USA and India.[13] These young teenagers are especially unhappy. In Table 8 we report

[13] Thiagarajan and Newson (2025) report on these data and note that "*the dominant problems in 13–17-year-olds extend beyond sadness and anxiety to include unwanted, strange thoughts and a sense of being detached from reality, while the problems that are increasing fastest with each younger age group are feelings of aggression towards others,*

MHQ scores along with those from the 2023 and 2024 GM surveys for ages 18-85. For India there is little variation in the score for those under 18 which have a mean of -4. Then in India MHQ rises from age 18 onwards. In the case of the US, MHQ rises steadily by age from 13 onwards.

This matches the evidence reported by Marquez et al (2024) who examined life satisfaction data, collected from self-reports, via the internet, from the OECD, PISA surveys of 2015, 2018 and 2022. They show, for children ages 15 and 16, declines between 2015 and 2018 in Japan, Jordan, Philippines, Saudi Arabia, Turkey and the UAE.

Global Minds also conducted a further survey in 2024 in several countries including seven from Asia - Bangladesh, India, Malaysia, Pakistan, Philippines, Singapore and Sri Lanka. This survey had the usual Global Minds questions including MHQ, but the Cantril 11-step life ladder question was added. Table 9 reports an MHQ and Cantril equations with a sample size of 5,497. In both well-being rises in age. In contrast to the interviewer driven surveys, the question used does not seem to play any part in explaining why the internet-based surveys look different from the interviewer assisted.

In Global Minds the results are clear: the young are the least happy and happiness increases in age.[14]

5. Discussion and Conclusions

Across the 16 AME countries in this paper, we find clear, unambiguous evidence that young people are both less happy and more unhappy than older people when that survey is conducted via a web-based survey. This is true in Global Minds, which uses web-based methods almost exclusively. But it is also true in relation to negative affect in the GFS's web-based surveys. In the GFS's web surveys the young also score lower than those aged 25-54 on positive affect, though the highest scorers are those aged 55 and over.

However, when the GFS conducts the same surveys, but over the telephone, a different picture emerges. Now the young are the happiest on positive affect metrics, and also the least unhappy on negative affect metrics.

In the Gallup World Poll, where the data are collected by interviewers face-to-face or by telephone (computer-aided telephone interviews, or CATI) the young are the happiest and the results are the same across the two survey modes.

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anger and irritability and hallucinations". They attribute these rapidly increasing problems of aggression and anger and irritability, particularly in females, to the increasingly younger age at which children are now getting a smartphone. Differences with age they find, are eliminated when controlling for the age of first smartphone.

[14] In an earlier paper Blanchflower (2025) reported on the age effects in 167 countries using the Global Minds data including for 26 other Asian and Middle Eastern countries with much smaller samples. The focus there was just on MHQ and simply involved including an 18-24 dummy in a Cantril equation and see in if it was significantly negative t>1.7. Countries, with sample sizes in parentheses were Afghanistan (1060), Bahrain (298), Bhutan (136), Cambodia (120), Fiji (58), Hong Kong (870), Iran (244), Kiribati (21), North Korea (59), South Korea (3203), Kuwait (360), Lebanon (250), Malaysia (5133), Marshall Islands (20), Mauritius (85), Mongolia (108), Myanmar (139), Nepal, (416), Oman (306), Qatar (203), Samoa (17), Solomon Islands (30), Turkey (570), Tuvalu (48), Vietnam (229).

Two questions emerge. First, why does the age profile of wellbeing and illbeing differ by survey mode? Second, which are we to believe?

The first question is not easy to answer. Ideally, to capture a pure survey mode effect, that survey mode would be randomly assigned across potential survey respondents. It is not. Instead, the push-to-web approach means agencies begin with offering a survey on-line in the hope they can keep costs down. In some instances – and this applies in the case of GFS – non-respondents are then offered a telephone interview. So those exposed to CATI are non-random in that they have not responded to CAWI, either because they were unable to (through lack of internet connectivity) or because they did not want to. Some of the differences in the age profile of wellbeing and illbeing may be due, in part, to the types of individuals who receive a CATI survey.

Furthermore, the propensity of individuals to respond to a survey, conditional on mode, may vary. We know that younger people are more comfortable with the web, so are more likely to respond to a CAWI survey than older people. Conversely, younger generations are less comfortable with using the telephone to make or receive calls, than the older generation.[15] So, a second effect will come via non-response biases that might differ systematically with age. These can be addressed, to some degree, by weights that reweight the analysis back to population distributions. We have not used them in these analyses.

Finally, there are real mode effects, that is, conditional on responding to a survey question, do you do so differently, depending on whether there is an interviewer around or not? Even here one needs to be careful because what is ostensibly the same question may have different prompts depending on whether it is face-to-face, telephone or internet.

Ideally, we want to tease out the above and distinguish between them in future. For now, it seems plausible that the pattern of switching in the GFS (shown in Table 4) in which the switching is strongest in relation to subjective wellbeing and illbeing questions, may be consistent with young people being more influenced by the presence of a survey interviewer, and thus more likely to offer socially desirable responses. However, if that was the whole story we might expect these 'mode effects' to be more pronounced in unhappiness than happiness, but they are not.

When examining trends in wellbeing and illbeing over time, one needs to be cognizant of mode effects because push-to-web has become more common among survey companies over time, in part to save money. Kocjan, Lavtar and Sočan (2023) report that individuals responding face-to-face report better psychological functioning than ones who respond over the web. Rickwood and Coleman-Rose (2023) have noted that there is evidence that people completing interviewer administered questionnaires are more likely to provide socially desirable responses than if they are self-administered. In the literature this is called social desirability response bias which is the tendency to underreport socially undesirable attitudes and behaviors and to over report more desirable attributes.

[15] Opinium surveyed a sample of 2,000 UK adults from 9 April 2024 – 12 April 2024 and found that 23% say they NEVER pick-up calls, with over half (56%) assuming an 'out of the blue' call means bad news. Overall, the survey found young people spend an average of just five and a half minutes on the phone every day. https://www.uswitch.com/media-centre/2024/04/Call-me-maybe-quarter-young-people-never-answer-phone/

What about the second question? Does it seem reasonable to infer that the young are now less happy and more unhappy than older people, as the web-based surveys suggest? There is quite a bit of evidence that this is the case. For example, in Japan the numbers of suicides for young people, especially girls through high school, was at an all-time high in 2024.[16] Zhang, Liu and Zhang (2025) found increases in anxiety, depression and self-harm mental health disorders and self-harm in Asian countries from 2019-2021, especially among young females. In the last few years there has been growing evidence globally that the traditional U-shapes in wellbeing are gradually on the wane, and especially so in advanced countries. This is driven by the fact that the left-hand side of the happiness function has dropped and now happiness rises in age and ill-being declines in age, so the hump shape is gone also. This matches evidence of rising levels of psychiatric admissions of the young along with rising anti-depressant prescription rates and rising rates of self-harm and suicide in some countries such as Australia, Japan and the USA.

We find the relationship between age and reported wellbeing differs according to the way the survey is conducted. The results are suggestive of social desirability response bias operating in Asia and the Middle East which leads young people to under-report socially undesirable affective states to interviewers.

[16] Kathleen Benozaapan, 'Struggles with youth suicide sparks government initiatives', The Japan Times, Oct 29th, 2024.

Table 1. HDI and World Happiness Report 2024 ranks and age<18-24

HDI rank/193	Country	GNI/ capita 2022	WHR rank/145 Age 18-24 2021-2023	Population Millions 2024
Asia (9)				
129	Bangladesh	$6,511	118	170.2
4	Hong Kong	$62,486	n/a	7.3
134	India	$6,951	131	1,419.3
112	Indonesia	$12,046	86	283.5
24	Japan	$43,644	56	122.7
164	Pakistan	$5,374	105	257.0
113	Philippines	$9,059	75	120.1
9	Singapore	$88,761	61	6.1
78	Sri Lanka	$11,899	115	22.1
Middle East (7)				
128	Iraq	$9,092	91	42.9
25	Israel	$43,588	1	9.6
99	Jordan	$9,295	113	11.3
40	Saudi Arabia	$50,620	62	37.2
45	Türkiye	$32,834	106	84.6
17	United Arab Emirates	$74,104	53	10.1
186	Yemen	$1,106	137	34.5

Source: WHR rank ages 18-24 source: Marquez et al 2024 column 4. GNI/capita (2017 PPP $) Human Development Report. Populations from Census International Database

Table 2. GWP coefficient on Cantril age 18-24 dummy age <70, 2020-2023 in 16 countries.

	Coefficient	T	N	Sign on age 18-24 Face-to-face.	Telephone
Asia (9)					
Bangladesh	.3727	4.05	3,888	+	0
Hong Kong	.0273	0.25	2,566	0	0
India	.3170	7.68	24,585	+	-
Indonesia	.6290	6.89	4,084	+	+
Japan	.4777	3.776	4,019	n/a	+
Pakistan	.4953	5.89	5,096	+	n/a
Philippines	.3749	4.41	3,989	+	+
Singapore	-.0582	0.62	3,019	n/a	+
Sri Lanka	.4734	6.13	5,593	+	+
Middle East (7)					
Iraq	.7620	8.77	4,070	+	+
Israel	.5616	9.04	5,146	+	+
Jordan	1.0504	9.95	3,995	+	+
Saudi Arabia	-.0959	1.18	4,083	n/a	0
Turkey	.1334	1.57	3,976	0	0
UAE	.0172	0.23	5,842	n/a	0
Yemen	.8032	6.44	1,996	+	0

Notes: includes mode, field data and gender controls. Last two columns + significantly positive – significantly negative 0=insignificant (t>1.5).

Table 3. Wellbeing in the Global Flourishing Study, 2022-2024 - Hong Kong, India, Indonesia, Israel, Japan, the Philippines and Turkey.

Part (a) 11-step

	Cantril		Life		Happy	
	Telephone	Internet	Telephone	Internet	Telephone	Internet
25-34	-.3491 (5.54)	-.2370 (4.98)	-.2421 (3.90)	-.1672 (3.34)	-.3854 (6.24)	-.1870 (3.98)
35-44	-.5734 (8.96)	-.3850 (8.04)	-.5581 (8.84)	-.3357 (6.68	-.6902 (11.00)	-.3287 (6.97)
45-54	-.6431 (9.28)	-.1359 (2.80)	-.7122 (10.41)	-.1180 (2.32)	-.7722 (11.35)	-.1743 (3.65)
55-64	-.4847 (6.23)	.3723 (7.21)	-.6639 (8.65)	.4145 (7.63)	-.8120 (10.64)	.2902 (5.70)
65-74	-.4126 (4.27)	1.0555 (21.30)	-.6428 (6.75)	1.2023 (23.10)	-.5613 (5.93)	.9570 (19.60)
75-84	-.6209 (3.98)	1.3812 (19.68)	-.7196 (4.68)	1.5764 (21.45)	-.8701 (5.68)	1.2727(18.42)
Female	.3837 (9.72)	.3724 (14.63)	.2446 (6.29)	.3949 (14.78)	.2120 (5.48)	.3980 (15.88)
Constant	5.7980	6.5837	7.2745	7.4544	6.8148	7.3738
Adj R^2	.0576	.1239	.0376	.1621	.0647	.1486
N	24,317	29,152	24,409	29,051	24,421	29,153

	Worthwhile		Lonely	
	Telephone	Internet	Telephone	Internet
25-34	-.2638 (4.40)	-.2086 (4.30)	.0916 (1.23)	-.2159 (3.66)
35-44	-.3623 (5.94)	-.3056 (6.28)	.1285 (1.70)	-.2587 (4.37)
45-54	-.4858 (7.35)	-.1220 (2.48)	.1901 (2.32)	-.4462 (7.44)
55-64	-.5235 (7.06)	.3782 (7.20)	.1576 (1.72)	-.9630 (15.06)
65-74	-.4928 (5.35)	1.0105 (20.07)	.1500 (1.32)	-1.6767 (27.34)
75-84	-.6240 (4.18)	1.3214 (18.56)	.4257 (2.31)	-2.1360 (24.65)
Female	.2511 (6.68)	.3627 (14.04)	-.0669 (1.44)	-.2296 (7.30)
Constant	7.0554	7.6264	3.8089	3.2461
Adj R^2	.0698	.2091	.0380	.0979
N	24,319	29,118	24,419	29,181

Part b) 4-step

	Anxious		Depressed		Worry	
	Telephone	Internet	Telephone	Internet	Telephone	Internet
25-34	.0992 (4.68)	-.0559 (2.80)	.0346 (1.67)	-.0988 (4.99)	.0714 (3.28)	-.1036 (5.44)
35-44	.1554 (7.22)	-.0825 (4.11)	.0734 (3.48)	-.1403 (7.06)	.1227 (5.54)	-.1735 (9.09)
45-54	.1515 (6.50)	-.2042 (10.06)	.0664 (2.90)	-.2427 (12.05)	.1110 (4.63)	-.2823 (14.61)
55-64	.1545 (5.90)	-.3580 (16.53)	.0840 (3.27)	-.3625 (16.89)	.1082 (4.03)	-.4201 (20.39)
65-74	.1433 (4.41)	-.6643 (31.96)	.0594 (1.87)	-.6243 (30.31)	.0768 (2.30)	-.6461 (32.68)
75-84	.2154 (4.10)	-.7294 (24.75)	.2307 (4.49)	-.6842 (23.47)	.1940 (3.60)	-.6792 (24.30)
Female	.1476 (11.12)	.0681 (6.22)	.0973 (7.48)	.0307 (2.91)	.1123 (8.24)	.0447 (4.41)
Constant	1.8158	2.0389	1.9142	2.3508	1.8663	2.4314
Adj R^2	.0559	.0312	.0596	.0810	.1030	.1206
N	24,356	29,088	24,325	29,117	24,299	29,173

Includes country dummies and other sex and 85+ dummy not reported. T-statistics in parentheses
Cantril=Life evaluation today 0=worst possible…10=best possible.
Life=How satisfied are you with life as a whole these days 0=not at all satisfied..10=completely satisfied.
Happy =How happy you usually feel 0=extremely unhappy..10=extremely happy.
Worthwhile=The things you do in your life are worthwhile 0 not at all worthwhile 10 completely worthwhile.
Lonely=How often feel lonely 10=always 0=never .
Anxious=Been bothered in last two weeks by: feeling nervous, anxious or on edge.
Depressed=Been bothered in last two weeks by: by…feeling down, depressed or hopeless.
Worry= Been Bothered in last two weeks by: not being able to stop or control worrying.
Answers 1=not at all; 2=several days; 3=more than half the days; 4=nearly every day.

Table 4. GFS with 40 outcomes via telephone and internet surveys – coefficient on age 18-24 dummy.

		Telephone		Internet	
		Coefficient	T	Coefficient	T
a) Sign switchers					
1	Depressed	-.054	2.77	.279	16.17
2	Worry	-.088	4.60	.305	18.41
3	Anxious	-.123	6.64	.260	14.83
4	Anxious, easily upset	-.125	3.38	.374	11.66
5	Cantril	.493	8.90	-.137	3.30
6	Satisfied with life	.471	8.61	-.220	5.02
7	Worthwhile	.354	6.72	-.173	4.11
8	Happy or unhappy	.576	1.59	-.125	3.06
9	Never feel lonely	.124	1.90	-.709	13.78
10	Uncreative	-.053	1.53	.088	3.13
11	Suffering	-.211	11.14	.076	4.74
12	Belonging to your country	.140	2.93	-.334	7.71
13	Mental health rating	.541	1.84	-.479	11.42
14	Give up some happiness	.163	3.05	-.101	2.56
15	Relationships	.114	2.33	-.225	5.19
16	Content with friendships	.303	6.25	-.151	3.56
17	Often attend religious services	.067	2.87	-.059	3.28
18	Religious importance	.023	4.33	-.019	3.13
b) Two positives					
19	Physical health rating	.862	16.53	.105	2.67
20	Critical, Quarrelsome	.104	2.68	.202	6.57
21	Open to new experiences	.248	7.79	.086	3.22
22	Careless	.145	3.76	.569	18.95
23	Are you unemployed	.070	15.02	.062	13.81
24	Life in 5 years	.649	13.14	.240	5.72
25	Health growing up	.095	5.00	.017	0.86
26	Life balance	-.003	0.16	-.090	6.48
c) Two negatives					
27	Bodily pain	-.257	13.37	-.084	5.25
28	Dependable, self-disciplined	-.048	2.00	-.253	9.63
29	Sympathetic	-.046	1.99	-.184	7.65
30	# Drinks / day	-.177	2.37	-.741	6.44
31	# Exercise days	-.201	3.60	-.181	3.96
32	Married	-.428	56.68	-.506	57.49
33	# Cigarettes /day	-.550	5.37	-1.468	11.75
d) 1 or 2 Insignificant					
34	Expect good things	.056	1.22	-.345	8.34
35	Little interest or pleasure	-.205	1.43	.094	0.73
36	Abused	.002	0.26	.019	2.53
37	Extroverted, enthusiastic	.011	0.42	.048	1.63
38	Reserved	.028	0.86	.271	9.21
39	Calm	-.015	0.54	-.309	11.63
40	Capable	-.010	0.58	-.057	4.23

Table 5. Variable definitions for Table 4.

Q1 *Depressed*	Been bothered in last two weeks by: feeling down, depressed or hopeless 4=nearly every day; 3 = more than half the days; 2 = Several days; 1 = not at all
Q2 *Worry*	Been bothered in last two weeks by: not being able to stop or control worrying 4=nearly every day; 3 = >half the days; 2 = Several days; 1 = not at all
Q3 *Anxious*	Been bothered in last two weeks by: feeling nervous, anxious or on edge 4=nearly every day; 3 = more than half the days; 2 = Several days; 1 = not at all
Q4 *Anxious, easily upset*	Anxious, easily upset pair of traits applies to you: 7 = agree strongly; 6= agree moderately; 5= agree a little; 4 = neither 3 = Disagree a little; 2 = disagree moderately; 1 = disagree strongly
Q5 *Cantril*	On which step of the ladder would you say you personally feel you stand at this time?0 = worst possible 10 = best possible
Q6 *Satisfied with life*	Overall, how satisfied are you with life as a whole these days?0 = not at all satisfied with your life 10 = completely satisfied with your life
Q7 *Worthwhile*	Overall, to what extent do you feel the things you do in your life are worthwhile? 0 = not at all worthwhile 10 = completely worthwhile
Q8 *Happy or unhappy*	In general, how happy or unhappy do you usually feel? 0 = extremely unhappy 10 = extremely happy
Q9 *Never feel lonely*	How often do you feel lonely? 0 =always….10 = never
Q10 *Uncreative*	Conventional, uncreative pair of traits applies to you: 7 = agree strongly; 6= agree moderately; 5= agree a little; 4 = neither agree nor disagree; 3 = disagree a little; 2 = disagree moderately; 1 =
Q11 *Suffering*	To what extent are you suffering? This can be any type of physical or mental suffering; 4 = a lot; 3= some; 2 = not very much; 1 = None at all
Q12 *Belonging to your country*	How would you describe your sense of belonging in your country 0 very weak..10 very strong
Q13 *Mental health rating*	How would you rate your overall mental health?0 = poor mental health10 = excellent mental health
Q14 *Give up some happiness*	I am always able to give up some happiness now for greater happiness later.0 = not true of you at all…10 = completely tr
Q15 *Relationships*	My relationships are as satisfying as i would want them to be.0 = strongly disagree10 = strongly agree
Q16 *Content with friendships*	I am content with my friendships and relationships 0 =strongly disagree ..10..strongly agree
Q17 *Often attend relig serv*ices	How often do you attend religious services? 5 = >1 a week; 4 = 1 a week; 3 = 1-3 times a month; 2 =few times a year; 1= never
Q18 *Religious importance*	Is religion an important part of your daily life? yes/no
Q19 *Physical health rating*	In general, how would you rate your physical health?0 = poor physical health…10 excellent physical health.
Q20 *Critical, quarrelsome*	Critical, quarrelsome, pair of traits applies to you: 7 = agree strongly; 6= agree moderately; 5= agree a little; 4 = neither agree nor disagree; 3 = disagree a little; 2 = disagree moderately; 1 = disagree strongly
Q21 *Open to new experiences*	Open to new experiences, complex pair of traits applies to you: 7 = agree strongly; 6= agree moderately; 5= agree a little; 4 = Neither agree nor disagree; 3 = disagree a little; 2 = disagree moderately; 1 =1 =disagree strongly
Q22 *Careless*	Disorganized, careless: 7=agree strongly; 6=agree moderately; 5=agree a little; 4=neither; 3=disagree a little; 2 = disagree moderately; 1 =disagree strongly
Q23 *Are you unemployed*	Are you unemployed 1=yes/0 =employed +olf
Q24 *Life in 5 years*	Just your best guess, on which step do you think you will stand in the future, say about five years from now? 0 = worst possible 10 = best possible
Q25 *Health growing up*	In general, how was your health when you were growing up? 5=excellent 4=very good 3=good; 2= fair 1 = poor
Q26 *Life balance*	In general, how often are the various aspects of your life in balance?4 = always3 = often2 = rarely; 1= never

Q27	*Bodily pain*	How much bodily pain have you had last 4 weeks? 4 = a lot; 3= some; 2 = not very much; 1 = none at all
Q28	*Dependable,*	Dependable, self-disciplined pair of traits applies to you: 7 = agree strongly; 6= agree moderately; 5= *self- self- disciplin*ed Agree a little; 4 = neither; 3 = disagree a little; 2 = disagree moderately; 1 = disagree strongly
Q29	*Sympathetic*	Sympathetic, warm, pair of traits applies to you: 7 = agree strongly; 6= agree moderately; 5= agree a little; 4 neither agree nor disagree; 3 = disagree a little; 2 = disagree moderately; 1 =
Q30	*# Drinks / day*	Approximately how many full drinks of any kind of alcoholic beverage did you drink in the past seven days, if any? a full drink is a glass of wine, a can or bottle of beer, or a shot of hard liquor. 0 = none-97
Q31	*# Exercise days*	On how many days did you exercise or engage in vigorous physical activities for 30 minutes or more in the past week? 1-7 days.
Q32	*Married*	Are you married
Q33	*# Cigarettes /day*	Approximately how many cigarettes do you smoke a day. 0 = none-97
Q34	*Expect good things*	Overall, i expect more good things to happen to me than bad. 0 = strongly disagree 10 = strongly agree
Q35	*Little interest or pleasure*	Been bothered in last two weeks by: little interest or pleasure in doing things 4=nearly every day; 3 => half the days; 2 =several days; 1 = not at all
Q36	*Abused*	Were you ever physically or sexually abused when you were growing up? yes/no
Q37	*Extroverted, enthusiastic*	Extroverted, enthusiastic pair of traits applies to you: 7 = agree strongly; 6= agree moderately; 5= agree a little; 4 = neither agree nor disagree; 3 = disagree a little; 2 = disagree moderately; 1 = disagree strongly
Q38	*Reserved*	Reserved, quiet, pair of traits applies to you: 7 = agree strongly; 6= agree moderately; 5= agree a little; 4 = neither agree nor disagree; 3 = disagree a little; 2 = disagree moderately; 1 =
Q39	*Calm*	Calm, emotionally stable, pair of traits applies to you: 7 = agree strongly; 6= agree moderately; 5= agree a little; 4 = neither agree nor disagree; 3 = disagree a little; 2 = disagree moderately; 1 =
Q40	*Capable*	Feel very capable in most things you do in life 4 = always3 = often2 = rarely; 1= never

Table 6. Global Minds MHQ 2020-2025

MHQ	India	Pakistan	Bangladesh	Philippines	Sri Lanka	Singapore
Age 25-34	11.044 (22.93)	13.782 (13.05)	15.468 (8.82)	13.523 (6.98)	18.908 (5.79)	20.882 (8.32)
Age 35-44	37.293 (70.20)	37.517 (36.92)	39.227 (21.18)	38.087 (22.97)	39.375 (12.28)	44.388 (17.17)
Age 45-54	62.589 (123.33)	55.221 (52.81)	56.395 (28.86)	60.898 (41.10)	54.538 (17.98)	64.809 (29.77)
Age 55-64	77.778 (153.72)	67.955 (60.42)	64.075 (28.57)	71.740 (48.17)	64.280 (21.76)	85.633 (40.83)
Age 65-74	83.942 (139.44)	70.886 (54.40)	70.940 (25.28)	76.704 (44.67)	71.269 (22.65)	95.865 (40.72)
Age 75-84	84.151 (75.45)	72.482 (33.75)	70.028 (12.92)	75.423 (24.90)	66.534 (16.93)	92.532 (25.10)
Female	-6.565 (20.19)	-7.930 (11.94)	-14.567 (11.31)	-2.908 (3.40)	2.625 (1.78)	.887 (0.63)
Constant	28.814	49.023	12.525	69.548	73.391	33.370
Adj R^2	.2092	.1567	.1776	.1439	.1094	.2768
N	183,662	45,218	11,157	24,212	7708	7,990

MHQ	Iraq	Israel	Jordan	Saudi Arabia	UAE	Yemen
Age 25-34	22.088 (18.59)	13.830 (5.54)	18.615 (11.61)	27.139 (14.27)	26.591 (10.22)	9.937 (10.61)
Age 35-44	38.152 (33.29)	33.215 (15.20)	33.187 (23.65)	42.493 (23.70)	38.744 (15.52)	24.838 (24.06)
Age 45-54	52.945 (46.62)	44.952 (23.92)	48.575 (35.10)	60.690 (33.70)	57.087 (22.24)	38.327 (27.49)
Age 55-64	62.558 (48.45)	57.129 (32.15)	63.346 (41.32)	72.072 (36.30)	69.296 (24.56)	42.846 (18.00)
Age 65-74	68.908 (34.08)	67.199 (36.67)	74.017 (31.79)	76.945 (26.54)	78.113 (20.39)	49.728 (10.71)
Age 75-84	63.675 (10.88)	68.325 (31.87)	64.071 (11.78)	70.299 (8.42)	76.452 (10.16)	39.621 (2.68)
Female	-10.881 (13.69)	-4.443 (4.17)	-4.774 (5.73)	-8.975 (7.77)	-10.549 (6.85)	-14.605 (19.53)
Constant	80.155	36.064	91.910	56.466	32.117	52.743
Adj R^2	.1457	.1286	.0963	.1416	.1240	.0604
N	27,639	14,323	26,274	14,462	7,895	31,033

Equations include ‘other’ sex, and year dummies. Asia and Middle East equations include country dummies.

Table 7. Global Minds feelings of sadness, distress and hopelessness, 2020-2025

	India	Pakistan	Bangladesh	Philippines	Sri Lanka	Singapore
Age 25-34	-.325 (17.58)	-.300 (7.20)	-.273 (-3.91)	-.153 (2.01)	-.622 (4.84)	-.629 (6.30)
Age 35-44	-1.289 (63.21)	-1.141 (28.41)	-1.237 (16.72)	-1.045 (16.00)	-1.383 (10.95)	-1.588 (15.44)
Age 45-54	-2.093 (107.39)	-1.719 (41.59)	-1.847 (23.66)	-1.906 (32.65)	-2.152 (18.01)	-2.324 (26.84)
Age 55-64	-2.628 (135.21)	-2.176 (48.93)	-2.099 (23.44)	-2.418 (41.23)	-2.477 (21.28)	-3.167 (37.96)
Age 65-74	-2.902 (125.51)	-2.391 (46.42)	-2.316 (20.66)	-2.700 (39.93)	-2.853 (23.02)	-3.550 (37.90)
Age 75-84	-2.942 (68.68)	-2.483 (29.25)	-2.480 (11.46)	-2.907 (24.37)	-2.872 (18.56)	-3.321 (22.64)
Female	.644 (51.54)	.664 (25.28)	.897 (17.46)	.356 (10.59)	.196 (3.38)	.124 (2.23)
Constant	5.787	4.861	6.356	4.925	5.091	5.800
Adj R^2	.1943	.1443	.1714	.1317	.1297	.2580
N	183,649	45,218	11,157	24,212	7,708	7,990

	Iraq	Israel	Jordan	Saudi Arabia	UAE	Yemen
Age 25-34	-.517 (10.31)	-.413 (4.19)	-.414 (6.29)	-.590 (7.58)	-.575 (5.44)	-.361 (9.34)
Age 35-44	-.937 (19.36)	-1.177 (13.64)	-.970 (16.86)	-1.038 (14.14)	-.957 (9.43)	-.935 (21.96)
Age 45-54	-1.438 (29.98)	-1.540 (20.72)	-1.421 (25.02)	-1.508 (20.45)	-1.550 (14.84)	-1.406 (24.44)
Age 55-64	-1.735 (31.82)	-2.000 (28.48)	-1.928 (30.65)	-1.916 (23.58)	-2.085 (18.16)	-1.595 (16.24)
Age 65-74	-1.888 (22.10)	-2.324 (32.08)	-2.144 (22.43)	-2.125 (17.91)	-2.270 (14.56)	-1.797 (9.38)
Age 75-84	-1.855 (7.51)	-2.374 (28.02)	-2.232 (10.00)	-2.180 (6.38)	-2.422 (7.91)	-1.898 (3.11)
Female	.772 (23.01)	.446 (10.58)	.652 (19.07)	.815 (17.23)	.739 (11.79)	1.113 (36.09)
Constant	4.438	5.314	2.870	5.582	5.525	4.586
Adj R^2	.0907	.1100	.0764	.0959	.0910	.0827
N	27,637	14,316	26,272	14,461	7,894	31,024

Equations include ‘other’ sex, and year dummies. Asia and Middle East equations include country dummies.

Table 8. MHQ for the young in India and USA

a) 2024	India		USA	
	MHQ	N	MHQ	N
Age 13	-6	872	-7	1,056
14	-3	956	0	1,100
15	-6	1,341	6	1,438
16	-5	1,608	12	1,562
17	-2	1,542	14	1,307
18	5	155	15	172
13-18	-4	6,474	6	6,635
b) 2023/4				
18-24	16	30,469	35	5,671
25-34	27	18,315	55	3,167
35-44	52	15,263	66	2,801
45-54	76	16,751	73	3,168
55-64	93	16,372	87	6,494
65-74	101	10,149	108	2,503
75+	110	13,390	117	21783
18-85	53	110,139	92	47,340

Table 9. Global Minds Cantril Survey in seven Asian countries

	MHQ	Cantril
25-34	12.229 (4.47)	.3128 (1.47)
35-44	48.239 (16.14)	1.1507 (3.31)
45-54	66.845 (22.11)	1.8205 (11.15)
55-64	85.392 (27.92)	2.3129 (17.43)
65-74	89.562 (25.16)	2.4915 (21.90)
75-84	86.033 (14.56)	2.5346 (20.27)
85+	113.928 (5.11)	1.9992 (12.42)
Female	-12.443 (6.38)	-.1424 (2.60)
Malaysia	18.461 (1.14)	.0606 (2.11)
Pakistan	10.091 (2.42)	.3330 (0.11)
Philippines	15.532 (3.46)	.3922 (2.32)
Singapore	8.249 (0.95)	-.1419 (2.53)
Sri Lanka	14.461 (1.99)	.0082 (0.47)
India	10.507 (2.74)	-.0073 (0.03)
cons	12.216 (3.00)	4.8750
Adj R^2	.2479	.1703
N	5,497	5,497

Excluded Bangladesh, 18-24.

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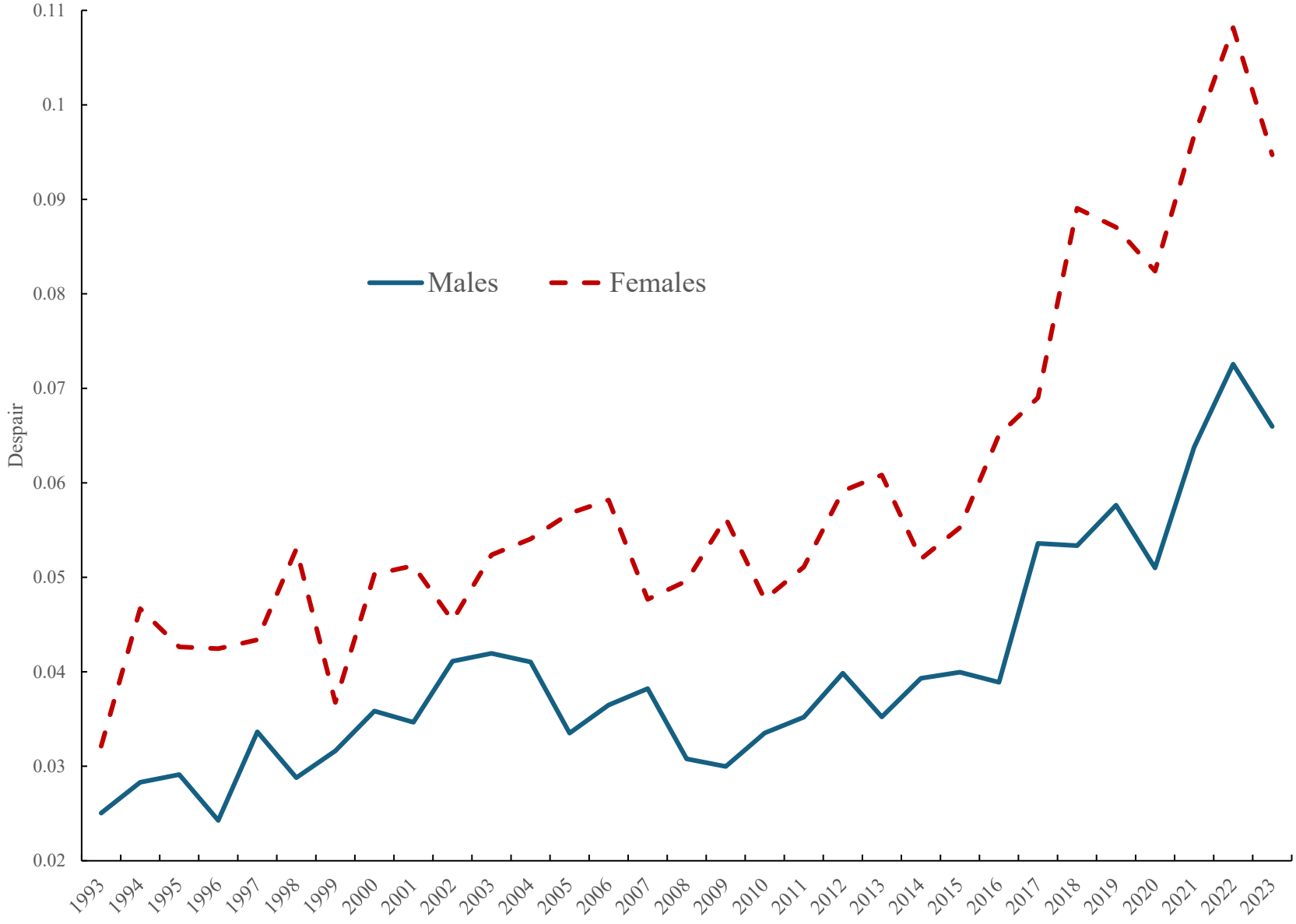
Chart 1. Despair for ages 18-24 by gender in the USA, 1993-2023



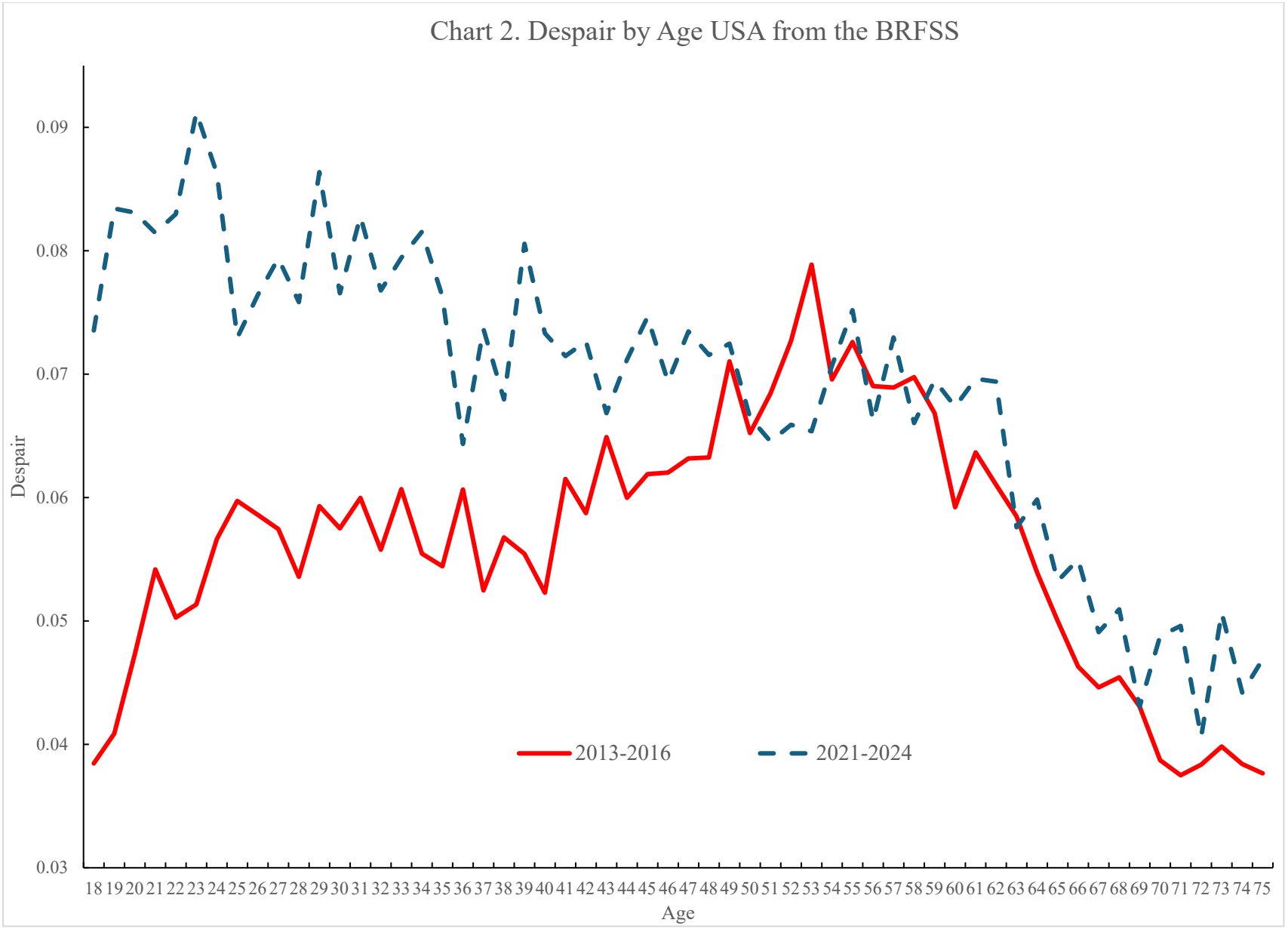


Chart 2. Despair by Age USA from the BRFSS
Despair
0.09
0.08
0.07
0.06
0.05
0.04
0.03
2013-2016
2021-2024
18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75
Age

Chart 3. Cantril by age for GFS by survey mode, 2022-2024

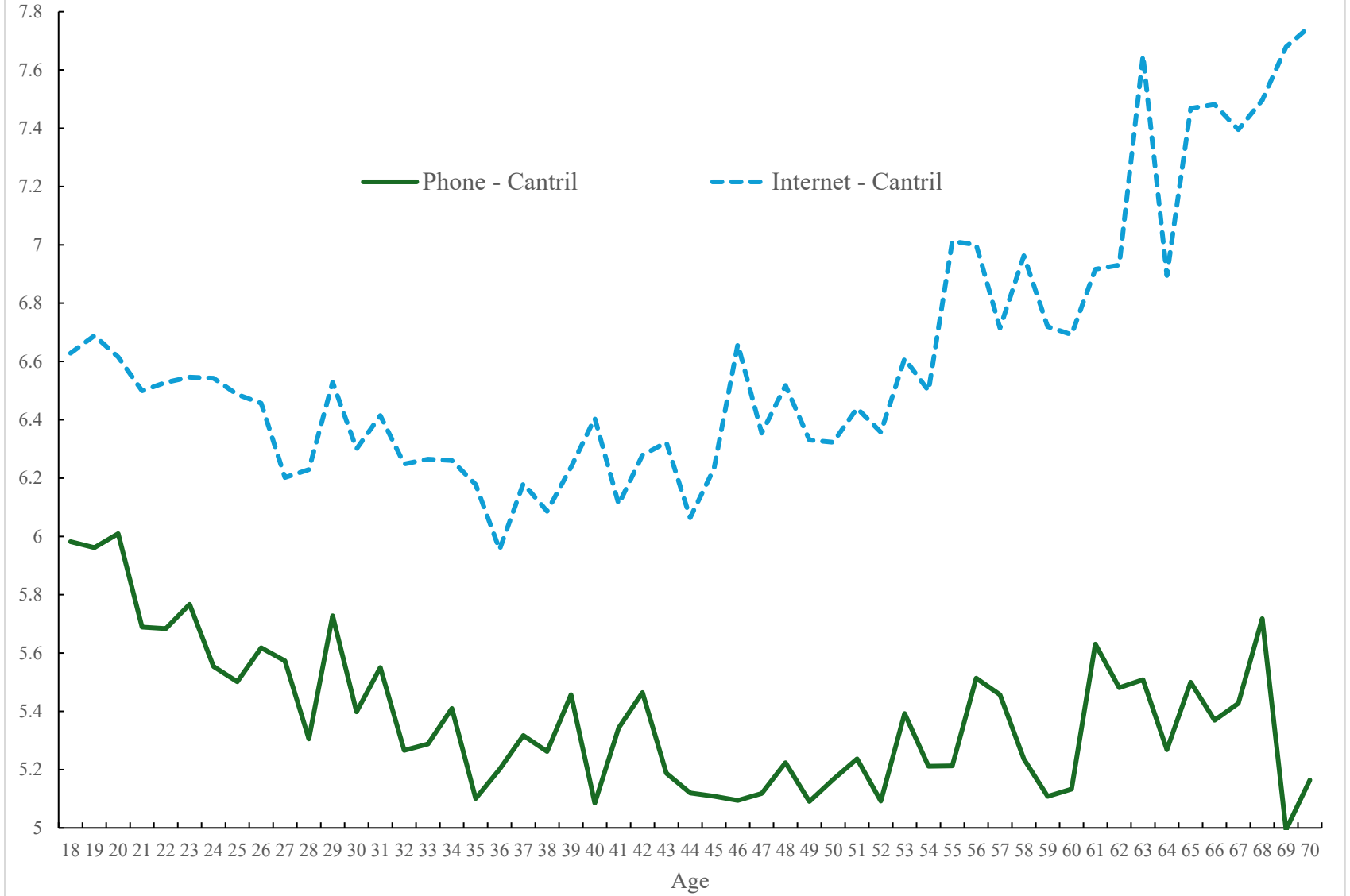
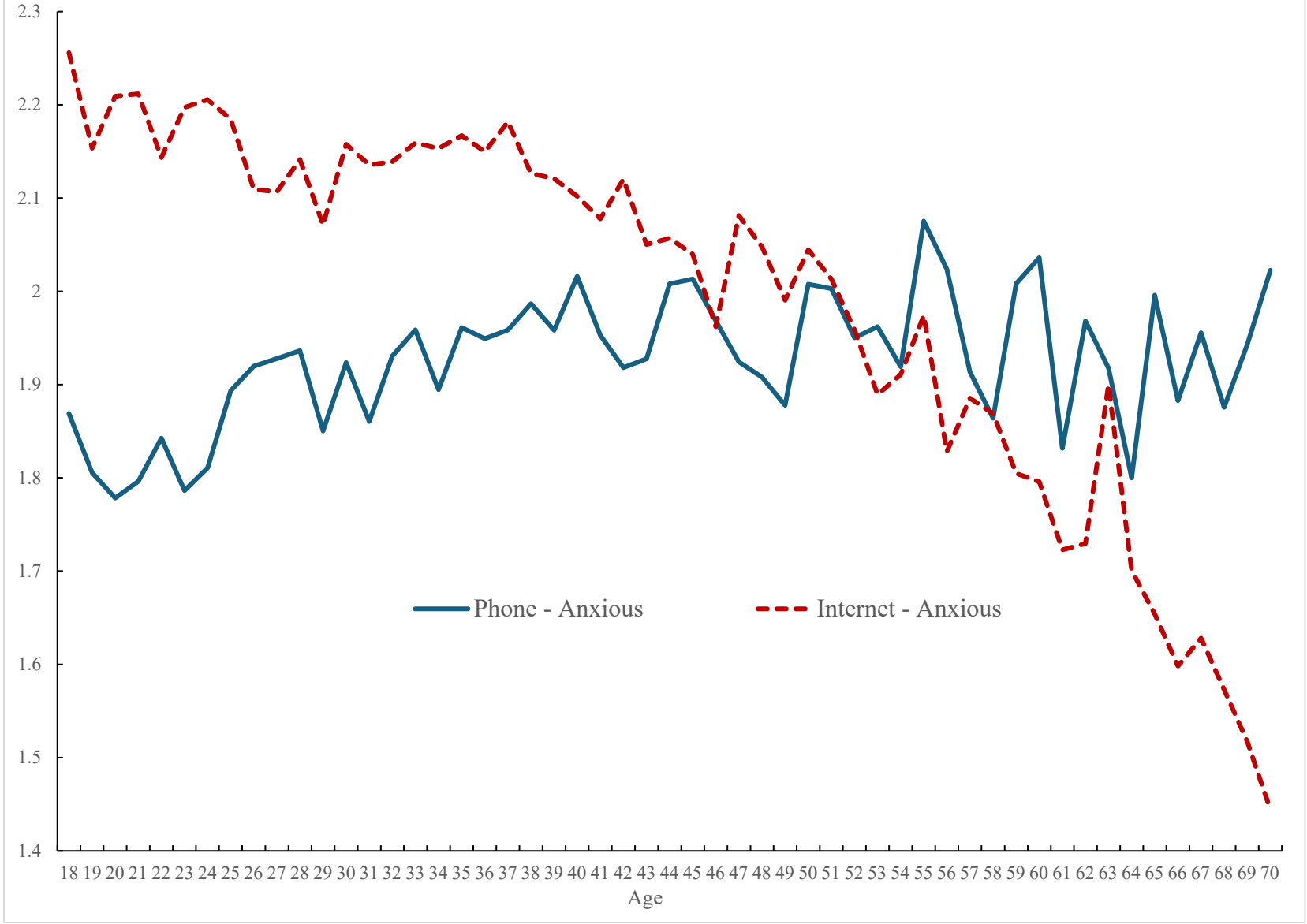


Chart 4. Anxiety by age for GFS by survey mode, 2022-2024



Appendix A. Articles that report U-shapes in age in happiness - India. Indonesia, Japan, Pakistan, Turkey and UAE.

1. Bangladesh.

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Appendix B. Individuals using internet – source UN

Year	2000	2008	2015	2019	2020	2021	2022	2023
USA	43	74	75	89	97	97	97	
Middle East								
Iraq	1	15	44	54	65	79		
Israel	21	59	77	87	90	90	92	
Jordan	3	23	54	70	78	86	91	
Saudi Arabia	2	36	70	96	98	100	100	100
Türkiye	4	34	54	74	78	81	83	86
UAE	24	63	91	99	100	100	100	100
Yemen	0	7	24	14	15	18		
Kuwait	7	42	82	100	99	100	100	100
Qatar	4	20	74	90	95	96	98	95
UAE	24	63	91	99	100	100	100	100
Asia								
Bangladesh	0	3	13	30	36	39	42	45
India	0	3	13	30	36	39	42	45
Indonesia	1	8	22	48	54	62	67	69
Japan	30	75	91	93	90	83	85	
Pakistan	7	11	17	19	25	33		
Philippines	2	6	37	43	54	63	75	
Singapore	36	69	79	89	92	97	96	94
Sri Lanka	1	15	32	36	45	50		
Malaysia	21	56	71	84	90	97	97	98
South Korea	45	81	90	96	97	98	97	97