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US COLLEGE STUDENTS' WELL-BEING

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ABSTRACT

We study the determinants of poor mental health among students at an elite private institution. Survey measures of well-being have declined significantly over the last decade for both high school students and those of college age. This is an international phenomenon that appears to have started in the US around 2013 and that was not caused by but was exacerbated by COVID and the associated lockdowns. We focus on elite and non-elite institutions and examine Dartmouth as a special case. Dartmouth ranks well compared to other institutions. However, around a quarter of Dartmouth students (26%) report they suffer from moderate to severe depression and 22% that they suffer from moderate, to severe, anxiety and 10% say they contemplated suicide. Student's wellbeing appears to be impacted negatively by stress over finances. We find broad patterns in the data, that ill-being is higher among females, those who engage in little exercise, have low GPAs, are not athletes nor in academic clubs nor religious organizations, reside in fraternity housing or are on financial aid.

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We study the determinants of poor mental health among students at elite and non-elite US colleges and universities with a particular focus on one elite private institution – Dartmouth College.¹ Survey measures of well-being have declined significantly over the last decade for both high school students and those of college age. This is an international phenomenon that appears to have started in the US around 2013 and that was not caused by but was exacerbated by COVID and the associated lockdowns. In particular the young in general and young women in particular have seen the biggest declines in mental health over this period, particularly in the US. This paper builds on earlier work looking at declining youth well-being the United States (Blanchflower, Bryson and Xu, 2024, Blanchflower, 2025) as well as globally (e.g. Blanchflower and Bryson, 2024a, 2024b, 2025).

First, we start with a summary of the recent background evidence to put the Dartmouth results in context. What is occurring at Dartmouth broadly reflects national and international trends. We find that the incidence of poor mental health among the young has risen sharply since 2013 in a dozen of the main US micro data files. That is true whether we examine well-being (Twenge and Blanchflower, 2025) or ill-being (Blanchflower, 2025, Blanchflower, Bryson and Xu). Consistently females have worse mental health than males, although males have a higher incidence of suicide, and this pattern is global.

Second, we then look at evidence from two surveys conducted by the CDC – the *Behavioral Risk Factor Surveillance Survey* (BRFSS) and the *Youth Risk Behavior Surveillance System* (YRBS) for high school students plus the Global Minds (GM) surveys for the US, 2020-2025. All suggest mental health of the young is worse than for other age groups. The first two show worsening over the last decade. This tracks the increased availability of the internet and smartphones (Haidt, 2024 and Haidt, Rausch and Twenge, 2024). The concern is that cyberbullying may have serious consequences later in life. Both the YRBS and GM surveys show high levels of suicidal ideation among the young.

The concern is that there will be long-run consequences of this epidemic. Summerfield (2025) documents the long-run labor market consequences of youth bully victimization in the US using NLSY97 data. Victims were found to exhibit lower earnings, lower job satisfaction and less job-complexity. Fewer hours and shorter tenure contribute to widening cumulative experience gaps. Female respondents and adolescent victims were most significantly affected. Blanchflower and Bryson (2024a) showed that bullying in childhood had impacts fifty years later, including on mortality. Blanchflower and Bryson (2024b, 2024c) show that adverse childhood experiences (ACEs) have a substantial and significant apparent impact on subjective wellbeing in adulthood. Time spent in front of a screen has been rising over time for the young and has an independent negative impact on their mental health over and above bullying, which is more pronounced for young women.

¹ Considered a landmark ruling by the U.S. Supreme Court, in the development of U.S. constitutional and corporate law, *Trustees of Dartmouth College v. Woodward* (1819) held that Dartmouth College would remain a private institution and not become a state-run, Dartmouth University. Famously Daniel Webster said “*It is, Sir, as I have said, a small college. And yet, there are those who love it!*” For simplicity in what follows we call it ‘Dartmouth’.
<https://home.dartmouth.edu/about/dartmouth-college-case-decided-us-supreme-court>

We focus particularly on the 2019 YRBS survey of 2019 given that the current group of Dartmouth students, mostly ages 18-22, were in the age range of 14-18 in 2019. We find ill-being rises in age in the YRBS, is higher for women and Native Americans (as seen in Blanchflower and Feir, 2023 using the BRFSS). Ill-being is negatively correlated with GPA and the lower the GPA the higher the incidence of depression.

We then move on to use the 2021/21 Healthy Minds (HM) 2020/21 in which Dartmouth participated, and which provides data on mental well-being. It also shows dramatic rises in depression, anxiety and suicidal ideation since 2013. We compare the results with 12 other private elite universities and estimate the Dartmouth specific intercept, which is generally significantly positive for well-being (i.e. negative for depression).² This HM data file for 2021-22 includes observations on 2527 Dartmouth students – 1540 females and 985 males.³ We also compare the 12 elite and Dartmouth results with 120 non-elite institutions. Depression (PHQ scores of 10 or higher) which implies moderate to severe depression is exhibited by 26% of male and 35% of female Dartmouth students.⁴ In addition, 5.7% of Dartmouth females reported a PHQ score of 20 or higher which implies they suffer from severe depression, versus 2.0% for Dartmouth men.

Dartmouth only ranks in the lowest/best 13 of 133 universities in terms of whether over the prior year they ever **seriously** considered attempting suicide? Around one in ten Dartmouth students answered in the affirmative that they had seriously considered taking their own life (11.6% females 9.9% males). Furthermore, Dartmouth ranked 17th lowest of 133 in the proportion that had actually formulated a plan for suicide (3.9%) and 18th on having tried to commit suicide in the previous year (0.6%).

We find broad patterns in the data, that ill-being is higher among females, those who engage in little exercise, have low GPAs are not athletes nor in academic clubs nor religious organizations, reside in fraternity housing, are on financial aid. But the background still is that around a quarter of Dartmouth students (26%) report they suffer from moderate to severe depression and 22% that they suffer from moderate, to severe, anxiety. Student's wellbeing appears to be impacted negatively by stress over finances.

Given the extent of this crisis, which admittedly seems somewhat more contained at Dartmouth than at the majority of other universities and colleges, we need to come up with policies that may alleviate the situation and test them to see if they work.

For further work we suggest two strands of research for determining the degree to which these relationships are *causal* and whether policy can aid the students struggling with poor mental health. We hope to test four hypotheses: 1) Students benefit from happier and more outgoing roommates and dormmates. 2) Students benefit from increased exercise and outdoor activities with friends. 3) Less advantaged students benefit from being more integrated into groups with their more advantaged peers 4) Students are faced with stress because of financial constraints, the question is how might thi

² Here elite is defined as being a private university (inst_public=0) and inst_acarank =1 most competitive.

³ See also <https://mentalhealth.dartmouth.edu/strategic-plan/healthy-minds-survey-2021>

⁴ This is consistent with the evidence that approximately one quarter of Dartmouth students participate in mental health programs.

s be alleviated.

The idea is to come up with policy responses to the youth mental health crisis. This is harder in universities perhaps than it is in secondary schools where there are possibilities of restricting the use of smartphones. An issue does remain as to whether the poor mental health of students is impacted primarily by what is currently impacting them as students, or perhaps Dartmouth inherited the effects of poor mental health when the current students were in high school. The treatments might well be different depending on the underlying source of the problem.

1. Background on the well-being of the young in the United States.

We have a good deal of evidence already from sixteen data sets showing a deterioration in the well-being of the young since around 2013 or so and this predates COVID. That coincides with the growth in smartphones. Blanchflower (2025) summarized the evidence for both children 12-18 of high school age and those of college age, mostly 18-24 from all of the major data files for the US that we summarize briefly here. In the US it appears the evidence is broadly consistent whether the data is obtained by interviewer either face-to-face or by telephone (such as The Gallup World Poll) or by the internet (US Household Pulse Survey, Healthy Minds and Global Minds).

A good place to start is Udupa et al. (2023) who document findings from three surveys.

- a) *National Health Interview Survey* (NHIS), 1997-2021, which included a Kessler-6 multi-item measure of mental distress, including symptoms of sadness and worthlessness.⁵ 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+. **Chart 1** illustrates.
- b) *National Health and Nutrition Examination Study* (NHANES), included the PHQ9, a measure designed to screen for symptoms of depression experienced in the last two weeks.⁶ 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+.
- c) *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.

⁵ 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.

⁶ 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

	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, ANES and GSS.

- d) *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.
- e) *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.
- f) *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

- g) *Global Flourishing Study (GFS)*, 2022-2024 was used by Lomas et al (2024) to calculate, using internet based sampling, well-being in the US using the 11-step cantril, life satisfaction ladder and found it rose in age in all three. The Cantril life evaluation measure rises 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). See Blanchflower (2025) also.
- h) *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 5th, 2020.⁷ In total we pool together 73 surveys though July 23-August 19th, 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 (2022a,

⁷ <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>.

2022b). 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.

- i) *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.
- j) *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. 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.
- k) *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 ≥ 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.
- l) 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.⁸ 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. Current Dartmouth undergraduates were mostly under the age of 17 in 2019.

There is now a growing body of evidence that the declining well-being of the young observed in the United States is repeating elsewhere. Examples include Thorisdottir et al (2021) for Iceland, Garriguet (2021) for Canada, Botha et al (2023) for Canada and Krokstad et al (2022), for Norway. Leigh and Robson (2024) for Australia. Plus, Twenge and Blanchflower (2025) for Australia, Canada Ireland, New Zealand, UK, USA and Blanchflower, Bryson, Lepinteur and Piper (2024) for France, Germany, Italy, Spain and Sweden and Blanchflower (2025) found it in 167 UN countries. As a result, the previously documented U-shape in happiness and hump shape in unhappiness have been replaced by a linear and positive relationship in age in well-being and a negative and roughly linear decline in ill-being in age (Blanchflower, Bryson and XU, 2024). The relative and absolute position of the young has worsened since around 2013.

1. Further evidence on the worsening mental and physical health of the young in the US

⁸ <https://www.ncbi.nlm.nih.gov/books/NBK587174/>

We report background evidence from three major US surveys, two for 18-24-year-olds and one for high school students ages 14-18. Both show poor mental health for the young.

1.1. Behavioral Risk Factor Surveillance Survey (BRFSS), 1993-2024.

This is a telephone-based survey. Evidence here is that days of bad mental health increased from a mean of 3 per month in 1993-1999 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 2018-2020.⁹ In addition Blanchflower, Bryson and Xu (2024) documented a rapid rise, especially for the young, in despair, which is measured as those who gave the answer 30 to the BRFSS 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?*”

Over the period from 2013 or so despair exploded upwards for the young in general and young women in particular. **Chart 2** illustrates and plots the time series of despair for the young by gender for ages 18-24 and then for 35-54. Despair among young females passes the prime age group in 2016 and the young males rate catches up in 2023. Rates for young men track those for young women but at lower rates. Despair rates were as follows

	Age<25 Females	Age <25 Males	Age 25-34	Age 35-54	Age 55+
2013	6.1	3.5	5.9	6.3	5.0
2019	8.7	5.8	7.1	6.5	5.3
2023	9.4	6.6	7.4	7.1	5.3

The despair rates for young men and women in 1993 were below those of age 25-54, but by 2023 they were above them. The despair rates of individuals 55+ changed little over this period.

In the 2023/2024 BRFSS the proportions in despair were 6.7% overall and 7.5% for females and 5.8% for males (n=425,215). But there were big differences by race, education and gender. The highest rates were for white female high school dropouts under age 25 where nearly one in five report that every day of their lives is a bad mental health day. This is a national crisis.

		Females age<25	Males age <25
All	6.7%	9.4	6.6
White non-Hispanic	6.7	11.2	7.0
Blacks	7.0	7.9	9.0
Asians	3.3	3.4	1.9
Hispanics	6.5	8.3	5.8
Native Americans	10.5	11.2	7.4
HS dropout	9.8	12.2	8.9
HS graduate	8.3	11.0	7.6
Attended college	7.0	8.5	4.9
College graduate	3.9	5.1	3.9
White HS dropout	14.6	17.7	12.4

⁹ See also Blanchflower, Bryson & Xu (2024).

In **Chart 3** we plot the (weighted) despair data, with a sample size of 8.4 million, by age for the US from 1993-2019. It gave the expected hump shape in despair, which peaked at age 53. I had failed to spot something else. First the upward trend in despair of the prime age group had stopped in around 2017, and from around 2013 or so the rates of despair for the young exploded upwards. Jean was right. In **Chart 3** for the US, we then add in a second plot of despair by age for the period 2020-2024. The U-shape has gone and now despair declines in age. The despair levels of the group under the age of fifty have risen and especially so for those age <25. As an example, at age 22, 4.8% were in despair in the earlier period versus 7.9% in 2020-2023.

Also included in the BRFSS data file is a question on bad physical health, which also goes back to 1993. The question asked is “*Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?*” For young people ages 18-24 that rose from 1.9 days /month in 1993 to 3.0 in 2023, in contrast to bad mental health days which rose from 3.5 in 1993 to 7.3 in 2023. **Chart 4** plots the proportion of age <25 who report 30/30 bad physical health days. This has trended up for both men and women. Finally **Chart 5** tracks the percent of young people who respond that the last thirty days were *both* bad physical and mental health days- so they answered 30 to both questions. This has tracked upwards for both men and women but remains small at around 1% of the young.

1.2.Global Minds (www.sapienlabs.com)

Data for the Global Mind Project is collected using the Mental or Mind Health Quotient (MHQ), an online assessment developed by Sapien Labs that measures Mind Health and Wellbeing. The MHQ captures 47 aspects of mental function, including emotional, cognitive and social aspects, along with demographics, lifestyle factors, friend and family dynamics, and traumas and adversities. It is freely available in multiple languages, anonymous, and takes approximately 15 minutes to complete. Participants receive a personalized MHQ score, which positions them on a spectrum from Distressed to Thriving, along with tailored feedback and self-care recommendations. Responses fall in the range from -100 to +200. Scores from 150 to 200 are classified as Thriving; 100-150=succeeding; 50-100=managing; 0-50=enduring; -50-0=Struggling and below -50 =distressed.

Over the period 2020-2025 there are 111,454 observations in the USA, of which 17,732 are age 18-24. We define someone as being in *distress* if their score is -50 or below. Overall, 3.8% of respondents in the US are in this category, including 10.4% of youngsters age<25, including 10.7% of females and 10.0% of males. Respondents are also asked about whether they have suicidal thoughts or intentions on a 1-9 scale where the respondent is told 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’. We define high suicidal intent that have a severe impact on my ability to function as 1 if the response was a 9, zero otherwise. Respondents are also asked on a 1-9 scale about their physical health, and again we construct physical despair as 1 if this variable =9, zero otherwise.

As can be seen below the percentages in despair or with suicidal intentions are markedly higher among the young in the US. That is not the case with bad physical health which peaks in midlife.

Despair	Suicidal intent (=9)	Physical despair (=9)
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18-24	10.4	12.2	7.0
25-34	6.5	5.9	8.6
35-44	6.1	4.8	11.2
45-54	5.3	4.5	12.1
55-64	2.8	2.6	10.6
65-74	1.1	1.3	7.0
75-84	0.7	1.0	4.8
85+	0.8	1.0	4.2
All	3.9	4.0	7.9

2.3. Youth Risk Behavior Surveillance System (YRBS), 1999-2023

This is a telephone survey run by the CDC for high school students mostly ages 14-18.¹⁰ In **Table 1** the percent who reported that they had been sad or hopeless every day for two weeks has risen rapidly since around 2013 and especially for high school girls. **Table 2** runs sadness regressions and shows the incidence rises in age and is especially high, again, for females and natives. Recent work by the CDC on the 2023 data has shown a strong connection between this sadness measure and use of smartphones (Young, McCain, Mercado et al (2023)).

In **Table 3** we report results for ages 14-18 in the 2019 survey, just before COVID, noting that this covers youths the same age as current Dartmouth undergraduates who in 2024/5 are mostly in the age range 18-22. We show that being sad or hopeless rises in age. We find no age effects in considering or planning suicide or in the number of attempts. Native Americans have high likelihoods of all of the above and there are effects from school performance. In what follows we also see the impacts of school performance, with those with mostly A's doing best.

3. Dartmouth data and *Healthy Minds* (HM), 2021-2022 (<https://healthymindsnetwork.org>)

The Healthy Minds surveys are an annual web survey in the United States examining mental health and related factors among undergraduate and graduate students. Institutions choose to participate in the surveys. Publicly available data can be downloaded on application since 2007. Dartmouth participated in 2020-22 and 2024-25.

Lipson et al 2022 examined these overall data through 2020/21 and reported results of changes in mental health in eight separate surveys for college students, although they did not report separate results by gender through 2021. The sample also included students aged twenty-five and older which accounted for around a quarter of students. They reported a rise in poor mental health based on a 9-item PHQ depression score coded 0-27 and a 7-item GAD anxiety score coded 0-21. Each item allowed respondents to report 0='not at all'; 1 "several days" 2= more than half the days and 3 nearly every day. The estimates they reported related to those scoring at least ten on these scales, which is the standard cutoff, both show a sharp rise.

We have access to three more recent surveys, 2021-2022 and 2022-2023 and 2023-24. The percentages have approximately doubled in a decade. The numbers picked up sharply in the COVID years to 44% for depression and 37% for anxiety but have subsequently fallen back.

2013	2014-15	2015-16	2016-17	2017-18	2018-19
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¹⁰ See also Verlenden, Fodeman, Wilkins et al. (2024)

Depression	17	20	26	31	37	37
Anxiety	17	20	21	26	32	32
	2019-20	2020-21	2021-22	2022-23	2023-24	
Depression	37	41	44 (30)	36	35	
Anxiety	32	35	37 (26)	32	31	

We have 2,527 observations on Dartmouth students in the 2021-2022 survey and with the mean rates in parentheses.¹¹ The Dartmouth average is well below the overall mean. The incidence of poor mental health is low at Dartmouth relative to other institutions. Of the 133 institutions in HM Dartmouth, with the weights imposed (*nr_weight*) has the fifth lowest incidence of depression. In terms of suicidal ideation we show below Dartmouth is 17th lowest/133.

In what follows we report results using the 2021-2022 survey for Dartmouth, private elite institutions including Dartmouth and non-elite institutions. We impose sample weights (*nrweight*). We focus particularly on the depression variable PHQ which has nine components. The components are as follows.

Over the last 2 weeks, how often have you been bothered by any of the following problems?

1. Little interest or pleasure in doing things?
2. Feeling down, depressed, or hopeless?
3. Trouble falling or staying asleep, or sleeping too much?
4. Feeling tired or having little energy?
5. Poor appetite or overeating?
6. Feeling bad about yourself — or that you are a failure or have let yourself or your family down
7. Trouble concentrating on things, such as reading the newspaper or watching television
8. Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual?
9. Thoughts that you would be better off dead or of hurting yourself in some way?

Responses are 1. Not at all 2. Several days 3. More than half the days 4. Nearly every day. In addition, we also examine *phq9*, relating to suicidal ideation and especially on those who respond 3 or 4. Manea, Gilbody and McMillan (2012), suggest that 10 is an appropriate cut-off point for distinguishing with those who do or do not have depression. That is what we use.

Table 4 reports mean values, of the relevant variables, according to this *phq10* measure, set to one if the PHQ score is 10 or higher, zero otherwise, which is higher for females, those ages 18-20, and those who are financially stressed.

We also examine in **Table 5** the seven GAD anxiety scores and Diener's 8 item flourishing scale (FS) (see Diener, et al, 2009), for Dartmouth and the elite and non-elite universities. We report weighted scores for each of the questions and in each case, Dartmouth has lower GAD scores, implying better mental health. The Diener scores are flourishing scores meaning a higher score the higher is wellbeing and again, in each instance, Dartmouth has a higher score. We present distributions for two variables to illustrate.

¹¹ The age distribution at Dartmouth is 18=382; 19=368; 20=375; 21=345; 22=168; 23 and over=889.

Table 6 takes the PHQ10 as the dependent variable and reports regression results for Dartmouth, elite institutions including Dartmouth and non-elite institutions. In each case we report results with gender, age, race, amount of exercise, where the student resides, whether they were studying for a bachelor's degree, if they had financial aid and then if they were an athlete or belonged to a religious society, an academic club or a gender or sexuality organization. In each case we provided estimates with and without the financial stress variables.

The main findings are that females are more depressed than males, that depression declines in age after around 23. The data include graduate students as well as undergraduates. Also, hours of exercise and being an athlete is associated with lower depression, as is being in an academic club or a religious organization. Membership of a gender or sexuality organization is associated with higher depression. There are few race effects other than the 'other' variable which includes native Americans who we know have higher depression rates. At Dartmouth residing in a fraternity is associated with higher depression. Membership in a fraternity does not matter. The stress variables are highly significant, to such a degree that adding them in column 3 removes the (negative) significance of the Dartmouth variable.

Table 7 models GAD10 anxiety at a cut-off of 10 as used by Lipson et al (2022) including the financial stress variables, and the independent variables act very similarly to the way they did in **Table 6** for depression. There is a significant and negative Dartmouth effect in column 2. It is lower among student athletes and those who exercise.

There is also evidence in the Health Minds data files that suicidal thoughts, in terms of the percent who seriously considered attempting suicide has risen over time. It is up from 6% in 2007 to 8% in 2013 to 13% in 2023/24.

2007	6.0%	2014-15	10.4	2020-21	13.2
2009	6.8	2015-16	9.9	2021-22	15.3
2010	6.7	2016-17	11.0	2022-23	14.4
2011	7.5	2017-18	13.4	2023-24	13.0
2012	7.7	2018-19	14.1		
2013	8.3	2019-20	14.1		

Table 8 reports the distribution of the suicidal ideation variable across various characteristics for Dartmouth and other universities. As with depression and anxiety, suicide ideation incidence is lower at Dartmouth. We also report, in parentheses, the proportion of students that formulated a plan over the preceding year; all those who had not had ideas of committing suicide are set to zero here. This again was generally relatively low at Dartmouth 3.9%). In addition, overall, 0.6% of Dartmouth respondents said they had tried to commit suicide one or more times (results not reported). This compares with 0.8% of elite universities and 1.8% in non-elite institutions.

Table 9 models the suicide ideation variable for Dartmouth and other universities. It is higher for those age 18-24 than for older groups and among women although that is not the case in non-elite institutions. Exercise and being a varsity athlete are associated with lower suicidal thoughts. There is no statistically significant Dartmouth effect in the presence of other controls. A new result is

the importance of concerns and stresses over financial situations which increases the probability of suicidal thoughts.

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.

Table 10 plots the most recent data from the US on suicide rates, which started to rise for the young from around 2015. For example, male rates for 18-24-year-olds rose from 19.4 in 2015 to 21.1 in 2021, they also rose for 25-44-year-old men and older males. In the case of females ages 18-24 suicide rates rose from 5.3/100000 in 2015 to 5.8 in 2022 compared with a fall for 45-64 women. The concern is that youth suicide rates will continue to rise.

4) Future Work

A longstanding literature uses random assignments of roommates and dormmates to understand impacts of peers on student outcomes. See Sacerdote (2011) for a summary and Sacerdote (2000), Carrell Sacerdote and West (2013) for two of the many examples. This literature shows that college peers have influences on us in a wide variety of domains including study habits and Grade Point Average, exercise habits, drinking and socializing behavior, and attitudes towards different race or different SES peers. Roommates also influence time spent on screens and video games. And roommates impact major choice and career choices (Field et al 2016, Marmaros and Sacerdote 2001).

What has not been studied directly is whether college students’ wellness can benefit from having roommates or dormmates who are more outgoing, more engaged in exercise and outdoor activity, and or more social people. The crisis in youth mental health makes it important that we proceed with this analysis to help inform our thinking and policy making.

Separately we are interested in the impacts of attending an LSA or FSP program. We hope to examine students who were just on the cusp of acceptance or rejection from the program. This will enable a natural treatment and control group to allow us to better understand the short and medium run benefits of these programs.

With Dartmouth’s current push for more outdoor engagement, we hope to measure the mental health benefits of additional outdoor time and exercise time with peers.

Given the evidence that student's mental health appears to be impacted by concerns over finances we need to explore the reasons for that and its source.

5. Conclusions

We have shown that there is evidence of a global decline in the well-being of the young since around 2013 in the US and in other countries. We reported on background evidence for many US surveys supporting this contention. Anti-depressant use among the young has risen as have emergency admissions for mental health. We examined new evidence from the BRFSS, the YRBS and GM and they also showed a continuing rise nationally in despair and thoughts of suicide among the young. Since 2015 suicide rates of the young have started to rise, while they have declined for most other age groups. The concern in the data is that suicidal ideation continues to rise. In the most recent data for 2023/24, 13% of college students, said they had seriously considered suicide over the prior 12 months.

We examined data on the wellbeing of students at Dartmouth using the 2021/2022 Health Minds survey and found that there was a high incidence of depression, for example with a third of Dartmouth female students and a quarter of Dartmouth males with moderate to severe depression. In comparison with other elite and non-elite institutions Dartmouth ranked towards the best of the college rankings, for example, ranking 5th best/123 on depression but only 13th best on suicidal ideation and 17th best in terms of formulating a plan.

The main Dartmouth findings are that females are more depressed than males, which declines in age after around 23. Lower grades are associated with worse mental health. Also, physical exercise and being an athlete is associated with lower depression, as is being in an academic club or a religious organization. Membership of a gender or sexuality organization is associated with higher depression. There are few race effects other than the 'other' variable which includes Native Americans who we know have higher depression rates. At Dartmouth residing in a fraternity is associated with higher depression, whereas simply being a member is not. The stress variables are highly significant, to such a degree that adding them in column 3 removes the (negative) significance of the Dartmouth variable. Financial stress seems important.

The next step is to try to establish causality. We have considered a series of analyses to see what works. In particular we may analyze randomize assignment of first year roommates as done in Sacerdote (2001). We are also considering examining the role of outdoor activities and even foreign study programs. We need to understand the extent to which students worry about finances and why. Possibilities abound. There is much to do to improve the wellbeing of Dartmouth students and particularly the third or so who are depressed, anxious and especially the one in ten who reported they have contemplated suicide.

Table 1. YRBS Ever feel sad or hopeless, 1999-2023

	Females	Males
1999	35.6	20.9
2001	34.5	21.6
2003	35.4	21.9
2005	36.7	20.3
2007	35.8	21.2
2009	33.8	19.1
2011	35.8	21.4
2013	39.0	20.7
2015	39.6	20.4
2017	40.9	21.3
2019	46.4	26.8
2021	56.2	28.5
2023	52.6	28.0

During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities? 1. Yes 2. No

Table 2. Sadness regressions, ages 14-18

	2015-2019	2021-2023
Female	.1975 (44.32)	.2540 (50.84)
15 years old	.0151 (1.94)	.0315 (3.99)
16 years old	.0382 (4.92)	.0458 (5.75)
17 years old	.0346 (4.41)	.0539 (6.61)
18 years & older	.0457 (5.10)	.0614 (5.77)
Asian	-.0995 (4.05)	-.1221 (7.29)
Black or African American	-.1136 (4.97)	-.0862 (5.90)
Native Hawaiian/other	-.0492 (1.38)	-.1045 (2.85)
White	-.0839 (3.75)	-.0855 (6.59)
Hispanic / latino	-.0479 (2.07)	-.0676 (4.27)
Multiple - hispanic	-.0293 (1.29)	-.0137 (0.97)
Multiple - non-hispanic	-.0125 (0.52)	-.0023 (0.15)
_cons	.2496	.3073
Adj R ²	.0513	.0734
N	42,281	35,813

Excluded; native Americans, and age 14 column 1 and 2 equations include year dummies. T-statistics in

Table 3. YRBS 2019 ages 14-18

	Sad or hopeless	Consider suicide	Plan suicide	# times try suicide
15 years old	.0173 (1.20)	.0007 (0.07)	.0058 (0.52)	.0174 (0.90)
16 years old	.0413 (2.87)	.0074 (0.62)	.0015 (0.14)	-.0050 (0.26)
17 years old	.0353 (2.39)	-.0013 (0.10)	.0007 (0.07)	-.0037 (0.19)
18 years or older	.0610 (3.60)	-.0040 (0.29)	-.0040 (0.31)	-.0128 (0.58)
Female	.2181 (25.73)	.1272 (17.95)	.0988 (15.07)	.0862 (7.81)
Asian	-.0341 (0.75)	-.0710 (1.88)	-.0421 (1.21)	-.2153 (3.59)
African American	-.1007 (2.35)	-.1176 (3.29)	-.0759 (2.32)	-.1586 (2.78)
White	-.0328 (0.79)	-.0919 (2.63)	-.0740 (2.31)	-.2606 (4.70)
Hispanic	-.0121 (0.29)	-.1017 (2.89)	-.0736 (2.28)	-.2333 (4.18)
Mostly bs	.1066 (10.93)	.0571 (7.00)	.0441 (5.85)	.0369 (2.92)
Mostly c's	.1750 (13.72)	.0958 (8.97)	.0858 (8.69)	.1068 (6.36)
Mostly d's	.2452 (9.98)	.1900 (9.25)	.1888 (9.93)	.2806 (8.53)
Mostly f's	.3190 (8.09)	.2722 (8.34)	.2749 (9.05)	.4755 (9.32)
None of these grades	.1727 (3.57)	.0275 (0.68)	.0588 (1.57)	.2202 (3.56)
Not sure	.1541 (6.33)	.1065 (5.21)	.0838 (4.43)	.2575 (7.94)
cons	.1759	.1756	.1361	1.2938
Adj R ²	.0698	.0365	.0309	.0324
N	12340	12350	12341	9754

During the past 12 months, how many times did you actually attempt suicide? 0, 1, 2, 3 ,4 5+

During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?

During the past 12 months, did you ever seriously consider attempting suicide?

During the past 12 months, did you make a plan about how you would attempt suicide?

Excluded; native Americans, age 14 and 'mostly A's. T-statistics in parentheses

Table 4. PHQ10 cutoff distribution

	Dartmouth	Elite	Non-elite
All	30.2	36.6	44.4
Male	25.6	32.7	38.3
Female	34.9	40.2	48.9
White	27.9	35.3	44.2
Black	37.5	37.1	42.8
Asian	28.3	35.8	42.4
Hispanic	37.3	42.6	45.6
Other	42.6	41.4	49.2
18	29.0	38.3	46.0
19	35.6	37.3	46.3
20	36.3	39.3	48.9
21	30.6	37.3	48.8
22+	26.7	33.6	40.5
GPA mostly A's	27.1	31.3	37.3
GPA mostly B's	33.3	42.7	46.3
GPA mostly C's	38.6	66.5	56.8
GPA mostly D's	55.1	54.5	73.7
GPA mostly F's	n/a	n/a	78.0
Member fraternity/sorority	33.2	34.9	45.9
Athlete varsity	21.6	24.5	31.2
Athletes club	24.7	30.7	38.6
Athletes intermural	18.1	25.2	32.3
Financial situation			
always stressful	62.4	63.2	66.7
often stressful	45.6	51.8	53.1
sometimes stressful	30.6	36.4	36.9
rarely stressful	24.7	29.8	28.7
never stressful	19.2	24.2	24.6
Percent distribution			
always stressful	5.4	7.0	17.8
often stressful	13.7	16.2	25.0
sometimes stressful	30.8	29.5	35.0
rarely stressful	28.6	29.5	16.8
never stressful	21.5	17.8	5.4

Table 5. Responses to GAD and Diener survey questions by university, 2021/2022 Healthy Minds.

	Dartmouth	Elite	Non-elite
<i>GAD1. Feeling nervous, anxious or on edge?</i>	2.24	2.37	2.41
<i>GAD2. Not being able to stop or control worrying?</i>	1.95	2.09	2.22
<i>GAD3. Worrying too much about different things?</i>	2.14	2.28	2.40
<i>GAD4. Trouble relaxing?</i>	2.10	2.23	2.27
<i>GAD5. Being so restless that it's hard to sit still?</i>	1.57	1.69	1.84
<i>GAD6. Becoming easily annoyed or irritable?</i>	1.80	1.93	2.19
<i>GAD7. Feeling afraid as if something awful might happen?</i>	1.98	1.73	2.19
<i>GAD</i>	6.45	7.35	8.28
<i>Diener1. I lead a purposeful and meaningful life?</i>	5.34	5.22	5.06
<i>Diener2. My social relationships are supportive and rewarding?</i>	5.53	5.50	5.20
<i>Diener3. I am engaged and interested in my daily activities?</i>	5.24	5.04	4.79
<i>Diener4. I actively contribute to the happiness and well-being of others?</i>	5.56	5.49	5.49
<i>Diener5. I am competent and capable in the activities that are important to me?</i>	5.55	5.53	5.53
<i>Diener6. I am a good person and live a good life?</i>	5.58	5.47	5.44
<i>Diener7. I am optimistic about my future?</i>	5.43	5.21	5.17
<i>Diener8. People respect me?</i>	5.38	5.31	5.19
<i>Diener</i>	35.65	34.81	33.89

Responses to GAD questions 1=not at all 2=several days 3=more than half days 4=nearly every day

Responses to Diener questions 1=strongly disagree; 2=disagree; 3=slightly disagree; 4=mixed neither; 5=slightly agree; 6=agree; 7=strongly agree

	Dartmouth	Elite	Non-elite
<i>GAD1. Feeling nervous, anxious or on edge?</i>			
<i>Not at all</i>	22.7	19.7	21.4
<i>Several days</i>	44.3	41.3	37.5
<i>More than half the days</i>	19.1	21.6	20.4
<i>Nearly every day</i>	13.9	17.4	20.7
<i>N</i>	2,312	12,956	73,650
<i>Diener1. I lead a purposeful and meaningful life?</i>			
<i>Strongly disagree</i>	2.4	2.2	3.9
<i>Disagree</i>	3.6	5.0	5.7
<i>Slightly disagree</i>	5.1	6.5	7.1
<i>Mixed neither</i>	11.9	11.5	15.8
<i>Slightly agree</i>	18.5	21.2	17.2
<i>Agree</i>	40.0	37.2	31.2
<i>Strongly agree</i>	18.5	16.5	19.0
<i>N</i>	2,344	13,154	74,666

Table 6. PHQ 10 cutoff regressions, Healthy Minds, 2021-22

	Dartmouth		Elite institutions		Non-elite institutions	
Dartmouth			-.0268 (2.32)	-.0183 (1.62)		
Female	.0715 (3.56)	.0632 (3.22)	.0606 (6.78)	.0505 (5.77)	.0979 (23.04)	.0741 (17.85)
Black	.0442 (1.01)	-.0163 (0.38)	-.0256 (1.39)	-.0657 (3.63)	-.0497 (6.64)	-.0766 (10.34)
Asian	-.0297 (1.19)	-.0324 (1.33)	-.0331 (3.22)	-.0338 (3.36)	-.0137 (2.32)	-.0014 (0.25)
Hispanic	.0026 (0.07)	-.0517 (1.41)	.0172 (1.18)	-.0252 (1.75)	.0021 (0.40)	-.0228 (4.29)
Other	.0912 (2.21)	.0566 (1.40)	.0547 (3.00)	.0138 (0.77)	.0698 (8.28)	.0466 (5.68)
19	.0666 (1.85)	.0792 (2.25)	.0013 (0.08)	.0023 (0.15)	.0079 (1.15)	.0060 (0.90)
20	.0711 (1.88)	.0764 (2.08)	.0073 (0.44)	.0043 (0.27)	.0232 (3.27)	.0091 (1.31)
21	-.0031 (0.08)	.0040 (0.10)	-.0193 (1.10)	-.0281 (1.64)	.0192 (2.58)	-.0008 (0.11)
22	-.0109 (0.21)	.0115 (0.23)	-.0076 (0.38)	-.0156 (0.78)	-.0013 (0.16)	-.0307 (3.72)
23+	-.1321 (2.48)	-.1411 (2.71)	-.0904 (3.98)	-.1146 (5.15)	-.0495 (6.79)	-.0881 (12.35)
Mostly B's	.0634 (2.73)	.0530 (2.33)	.1013 (10.71)	.0782 (8.41)	.0933 (22.73)	.0674 (16.77)
Mostly C's	.1059 (1.52)	.0441 (0.65)	.2538 (9.34)	.1948 (7.30)	.2157 (33.34)	.1576 (24.75)
Mostly D's	.3878 (1.48)	.3612 (1.41)	.3153 (3.26)	.2184 (2.31)	.3611 (20.00)	.2779 (15.76)
Mostly F's			.5389 (3.29)	.5079 (3.18)	.3653 (12.59)	.2758 (9.77)
Not reported	.0666 (2.45)	.0689 (2.60)	.0269 (1.73)	.0205 (1.34)	.1130 (12.44)	.0878 (9.93)
BA	-.0408 (0.92)	-.0329 (0.76)	-.0044 (0.24)	.0018 (0.10)	.0367 (7.65)	.0377 (8.04)
On-campus housing	-.0074 (0.16)	-.0028 (0.06)	-.0050 (0.34)	.0049 (0.34)	.0217 (2.66)	.0223 (2.80)
Fraternity or sorority	.0867 (1.76)	.0738 (1.54)	.1132 (3.41)	.1089 (3.36)	.0096 (0.39)	-.0002 (0.01)
Co-operative housing	-.0468 (0.79)	-.0309 (0.54)	-.0121 (0.42)	-.0143 (0.50)	.0442 (2.37)	.0272 (1.49)
Off-campus non-university	.0169 (0.55)	.0004 (0.01)	.0084 (0.62)	.0008 (0.07)	-.0020 (0.36)	-.0071 (1.29)
With my parents(s)/guard	-.1522 (1.65)	-.1771 (1.97)	.0441 (1.50)	.0275 (0.96)	.0019 (0.32)	.0006 (0.11)
Other (please specify)	-.0285 (0.44)	-.0302 (0.48)	.0226 (0.64)	.0244 (0.70)	-.0480 (4.16)	-.0519 (4.63)
Financial aid	.0401 (1.92)	-.0339 (1.53)	.0397 (4.45)	-.0097 (1.07)	.0330 (8.15)	.0174 (4.38)
Exercise 1-2 hrs/day	-.1112 (3.25)	-.0937 (2.80)	-.0947 (6.60)	-.0853 (6.09)	-.1076 (18.46)	-.0943 (16.59)
Exercise 2-3 hrs/day	-.1461 (4.19)	-.1360 (3.99)	-.1381 (9.50)	-.1264 (8.88)	-.1271 (20.35)	-.1138 (18.68)
Exercise 3-4 hrs/day	-.1643 (5.24)	-.1462 (4.77)	-.1629 (12.23)	-.1496 (11.49)	-.1463 (26.99)	-.1311 (24.79)
Exercise 5+ hrs/day	-.0818 (2.43)	-.0672 (2.05)	-.0706 (5.04)	-.0625 (4.56)	-.0752 (13.93)	-.0641 (12.16)
Member fraternity/sorority	.0130 (0.46)	.0156 (0.57)	-.0168 (1.25)	-.0126 (0.96)	-.0229 (2.79)	-.0154 (1.93)
Varsity athlete	-.1294 (3.78)	-.1255 (3.76)	-.0964 (5.88)	-.0847 (5.29)	-.1005 (10.97)	-.0909 (10.23)
Club athlete	-.0605 (2.29)	-.0559 (2.17)	-.0197 (1.57)	-.0118 (0.96)	-.0300 (3.50)	-.0192 (2.31)

Intermural athlete	-.0991 (2.97)	-.0904 (2.78)	-.0547 (3.56)	-.0453 (3.02)	-.0893 (9.99)	-.0781 (9.00)
Gender or sexuality orgn	-.0306 (1.53)	-.0312 (1.61)	-.0313 (3.68)	-.0338 (4.06)	-.0259 (5.89)	-.0205 (4.79)
Academic club	.1329 (2.83)	.1177 (2.56)	.1171 (6.39)	.1103 (6.17)	.1680 (15.40)	.1527 (14.41)
Religious orgn	-.0766 (2.16)	-.0620 (1.79)	-.0600 (4.03)	-.0477 (3.28)	-.0873 (11.65)	-.0728 (9.99)
Often stressful		-.1659 (3.54)		-.1174 (6.37)		-.1370 (24.03)
Sometimes stressful		-.3061 (7.04)		-.2511 (14.65)		-.2853 (52.47)
Rarely stressful		-.3754 (8.38)		-.3197 (18.18)		-.3538 (56.04)
Never stressful		-.4465 (9.43)		-.3828 (19.92)		-.3744 (41.26)
_cons	.4819	.7831	.4177	.7241	.3740	.6530
Adj R ²	.0697	.1168	.0652	.1077	.0754	.1337
N	2,224	2,224	12,420	12,418	68,599	67,629

T-statistics in parentheses. Excluded; age 18; always stressful; 0 exercise, on campus housing/residence hall.

Table 7. GAD10 regressions.

	Dartmouth	Elite institutions	Non-elite institutions
Dartmouth		-.0265 (2.37)	
Female	.1360 (7.09)	.0949 (11.01)	.1261 (30.67)
Black	-.0572 (1.37)	-.1021 (5.71)	-.1092 (14.88)
Asian	-.0460 (1.93)	-.0736 (7.42)	-.0437 (7.65)
Hispanic	.0211 (0.60)	-.0397 (2.81)	-.0500 (9.50)
Other	.0476 (1.21)	.0081 (0.46)	.0182 (2.25)
19	.0461 (1.34)	.0213 (1.37)	.0099 (1.50)
20	.0516 (1.44)	.0022 (0.14)	.0207 (3.02)
21	.0283 (0.74)	.0167 (0.99)	.0044 (0.62)
22	.0063 (0.13)	.0248 (1.26)	-.0141 (1.73)
23+	.0313 (0.62)	-.0429 (1.96)	-.0783 (1.09)
Mostly B's	.0295 (1.33)	.0309 (3.38)	.0284 (7.14)
Mostly C's	.0414 (0.64)	.1045 (3.99)	.0837 (3.28)
Mostly D's	.3549 (1.42)	.1635 (1.75)	.1650 (9.52)
Mostly F's	.0891 (0.57)	.1779 (6.36)	
Not reported	.0337 (1.30)	.0239 (1.59)	.0303 (3.47)
BA	.0301 (0.71)	.0313 (1.76)	.0263 (5.68)
On-campus housing	.0740 (1.68)	.0224 (1.55)	.0072 (0.91)
Fraternity or sorority	.0160 (0.34)	.0721 (2.26)	.0022 (0.09)
Co-operative housing	-.0524 (0.93)	-.0207 (0.74)	-.0115 (0.64)
Off-campus non-university	-.0451 (1.54)	-.0102 (0.78)	.0005 (0.09)
With my parents(s)/guard	-.0986 (1.07)	.0066 (0.24)	.0087 (1.51)
Other (please specify)	-.0230 (0.37)	-.0097 (0.29)	-.0445 (4.02)
Financial aid	-.0372 (1.73)	-.0313 (3.49)	.0190 (4.85)
Exercise 1-2 hrs/day	-.0253 (0.78)	-.0580 (4.19)	-.0565 (10.03)
Exercise 2-3 hrs/day	-.0654 (1.97)	-.0732 (5.23)	-.0630 (10.46)
Exercise 3-4 hrs/day	-.0629 (2.10)	-.0778 (6.06)	-.0780 (14.91)
Exercise 5+ hrs/day	-.0313 (0.98)	-.0452 (3.35)	-.0451 (8.65)
Academic club	-.0297 (1.57)	-.0081 (1.00)	.0009 (0.22)
Member fraternity/sorority	.0389 (1.45)	-.0115 (0.89)	.0010 (0.13)
Varsity athlete	-.0741 (2.28)	-.0842 (5.32)	-.0773 (8.78)
Club athlete	-.0736 (2.92)	-.0379 (3.13)	-.0277 (3.36)
Intermural athlete	-.1007 (3.19)	-.0591 (4.01)	-.0696 (8.09)
Gender or sexuality orgn	.1008 (2.28)	.0872 (4.96)	.1255 (11.95)
Religious orgn	-.0510 (1.51)	-.0312 (2.18)	-.0679 (9.40)
Often stressful	-.0750 (1.64)	-.1030 (5.69)	-.1534 (27.17)
Sometimes stressful	-.2652 (6.20)	-.2414 (14.31)	-.2903 (53.92)
Rarely stressful	-.2949 (6.69)	-.3047 (17.60)	-.3524 (56.36)
Never stressful	-.2924 (6.28)	-.3273 (17.29)	-.3589 (39.90)
_cons	.4863	.5807	.5640
Adj R ²	.0928	.0817	.1148
N	2,215	12,451	68,045

T-statistics in parentheses. Excluded; age 18; always stressful; on campus housing/residence hall

Table 8. Suicidal ideas and plans means

	Dartmouth	Elite	Non-elite
All	10.7 (3.9)	12.4 (4.8)	15.6 (6.4)
Male	9.9 (3.0)	11.6 (4.8)	14.9 (5.8)
Female	11.6 (4.8)	13.1 (4.7)	16.1 (6.8)
White	10.0 (3.2)	12.1 (4.5)	15.8 (6.3)
Black	11.6 (4.4)	15.3 (6.4)	16.7 (7.2)
Asian	9.8 (3.9)	11.3 (4.6)	14.8 (6.6)
Hispanic	11.1 (2.9)	13.1 (5.9)	14.1 (5.8)
Other	19.4 (11.2)	16.2 (4.5)	17.0 (7.8)
Age<25	12.3 (4.5)	13.1 (5.2)	17.4 (7.4)
GPA mostly A's	10.4 (3.4)	10.6 (3.6)	13.6 (5.4)
GPA mostly B's	13.7 (5.0)	14.5 (6.1)	14.9 (6.1)
GPA mostly C's	13.6 (10.4)	23.4 (12.7)	20.6 (8.9)
GPA mostly D's	n/a	n/a	27.7 (14.3)
GPA mostly F's	n/a	n/a	34.6 (17.1)
Athlete varsity	6.6 (3.5)	8.6 (2.4)	10.2 (4.8)
Athletes club	11.3 (3.8)	11.6 (4.6)	13.4 (6.6)
Athletes intermural	7.7 (1.6)	6.5 (1.2)	8.8 (3.3)
Gender or sexuality orgn	17.7 (6.4)	21.2 (8.9)	31.1 (14.3)
Financial situation			
always stressful	18.9 (11.2)	22.8 (8.2)	24.0 (10.4)
often stressful	14.8 (5.1)	17.1 (6.8)	17.8 (7.0)
sometimes stressful	10.8 (3.8)	11.4 (4.7)	12.8 (5.2)
rarely stressful	8.9 (3.2)	10.1 (3.6)	10.7 (4.2)
never stressful	8.4 (2.2)	9.6 (3.5)	10.1 (6.5)

During the past 12 months, did you ever **seriously** consider attempting suicide? Yes/No

During the past 12 months, did you make a plan about how you would attempt suicide? Yes/No

% saying they made plans in parentheses

Table 9. Suicidal ideas, Healthy Minds, 2021-22

	Dartmouth	Elite institutions	Non-elite institutions
Dartmouth		-.0049 (0.65)	
Female	.0102 (0.75)	.0065 (1.08)	.0038 (1.23)
Black	-.0080 (0.27)	-.0117 (0.94)	-.0054 (0.99)
Asian	-.0122 (0.72)	-.0186 (2.68)	-.0051 (1.21)
Hispanic	-.0277 (1.10)	-.0207 (2.08)	-.0255 (6.45)
Other	.0546 (1.94)	.0250 (2.02)	.0156 (2.54)
Age<25	.0901 (4.88)	.0551 (7.02)	.0683 (18.95)
GPA Mostly A's	-.0212 (1.53)	-.0315 (5.36)	-.0276 (9.96)
On-campus housing	.0401 (1.40)	-.0141 (1.56)	-.0221 (3.80)
Fraternity or sorority	-.0601 (1.86)	-.0085 (0.38)	.0046 (0.26)
Co-operative housing	.0170 (0.44)	.0006 (0.03)	-.0054 (0.40)
Off-campus non-university	.0005 (0.03)	-.0223 (2.94)	-.0297 (8.08)
With my parents(s)/guard	-.0423 (0.68)	-.0427 (2.19)	-.0226 (5.58)
Other (please specify)	-.0248 (0.58)	.0227 (0.97)	-.0462 (5.66)
Exercise 1-2 hrs/day	-.0238 (1.03)	-.0228 (2.35)	-.0325 (7.66)
Exercise 2-3 hrs/day	-.0376 (1.59)	-.0350 (3.56)	-.0357 (7.86)
Exercise 3-4 hrs/day	-.0396 (1.85)	-.0331 (3.67)	-.0368 (9.34)
Exercise 5+ hrs/day	-.0470 (2.04)	-.0176 (1.85)	-.0215 (5.47)
Member fraternity/sorority	.0143 (0.79)	-.0059 (0.66)	-.0327 (5.51)
Varsity athlete	-.0686 (2.97)	-.0457 (4.13)	-.0500 (7.55)
Club athlete	.0002 (0.01)	.0000 (0.01)	-.0234 (3.76)
Inter-mural athlete	-.0212 (0.93)	-.0291 (2.80)	-.0436 (6.72)
Gender or sexuality orgn	.0687 (2.13)	.0870 (6.99)	.1182 (14.87)
Religious orgn	-.0149 (0.61)	-.0080 (0.80)	-.0361 (6.64)
Often stressful	-.0457 (1.39)	-.0545 (4.26)	-.0658 (15.44)
Sometimes stressful	-.0841 (2.74)	-.1094 (9.20)	-.1183 (29.20)
Rarely stressful	-.1054 (3.36)	-.1228 (10.11)	-.1361 (29.01)
Never stressful	-.1279 (3.94)	-.1353 (10.34)	-.1390 (20.61)
_cons	.1779	.2338	.2515
Adj R ²	.0267	.0317	.0392
N	2,254	12,629	68,915

T-statistics in parentheses. Excluded; white; always stressful; on campus housing/residence hall. Age25 is a 1,0 dummy for age 18-24.

Dependent variable set to one if during the past 12 months, did you ever **seriously** consider attempting suicide said Yes, zero otherwise.

Table 10. Suicide rates in the US by age, 2015-2021)

Males	10-14	15-24	25-44	45-64	65-74	75+
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
2022	2.8	21.1	29.6	29.5	27.2	43.9
Females	10-14	15-24	25-44	45-64	65-74	75+
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
2022	1.9	5.8	7.9	8.6	6.0	4.6

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Chart 1. Kessler scores, 1997-2021 National Health Interview Survey

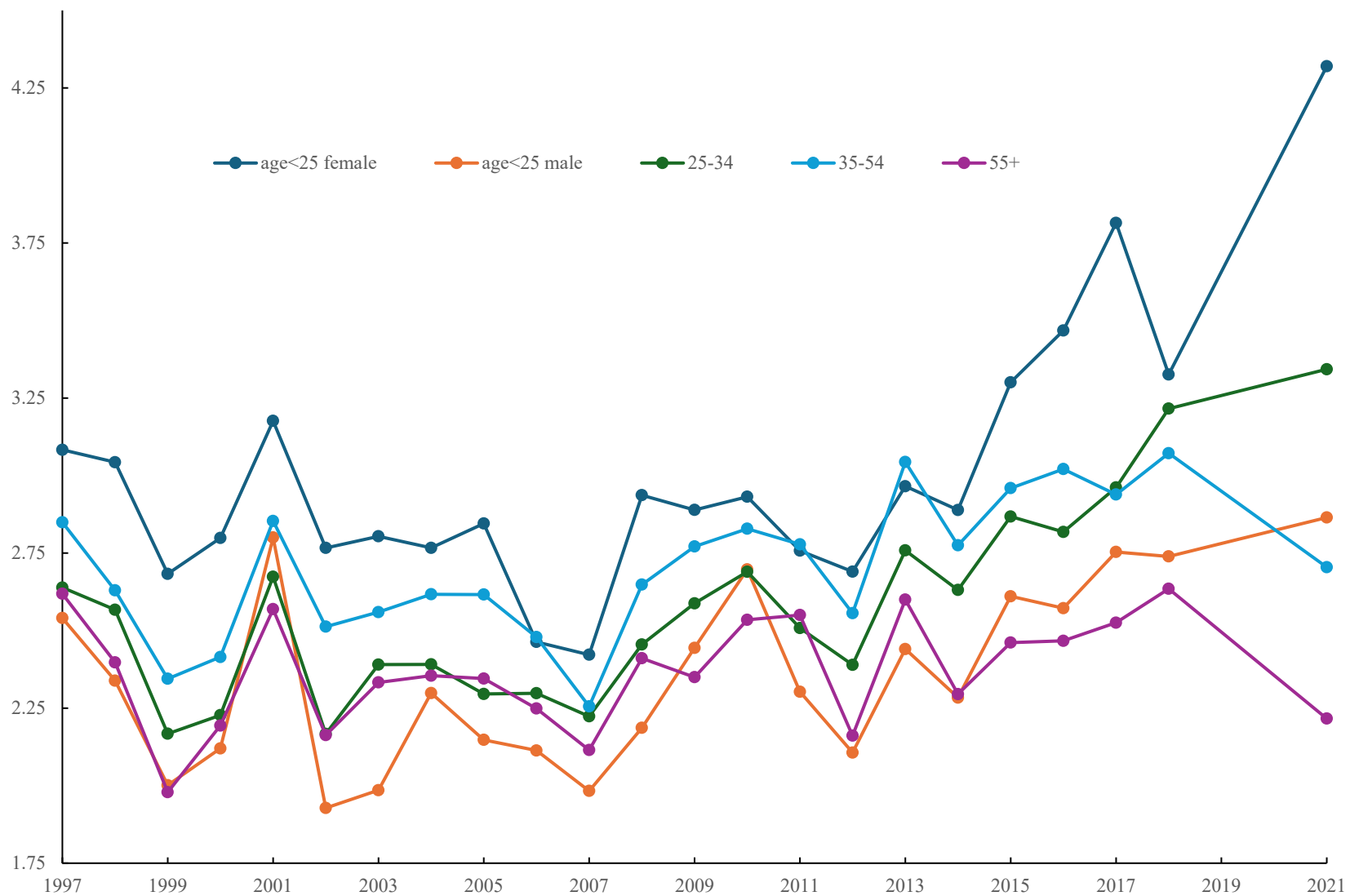


Chart 2. Time series changes in despair, 1993-2023, BRFSS

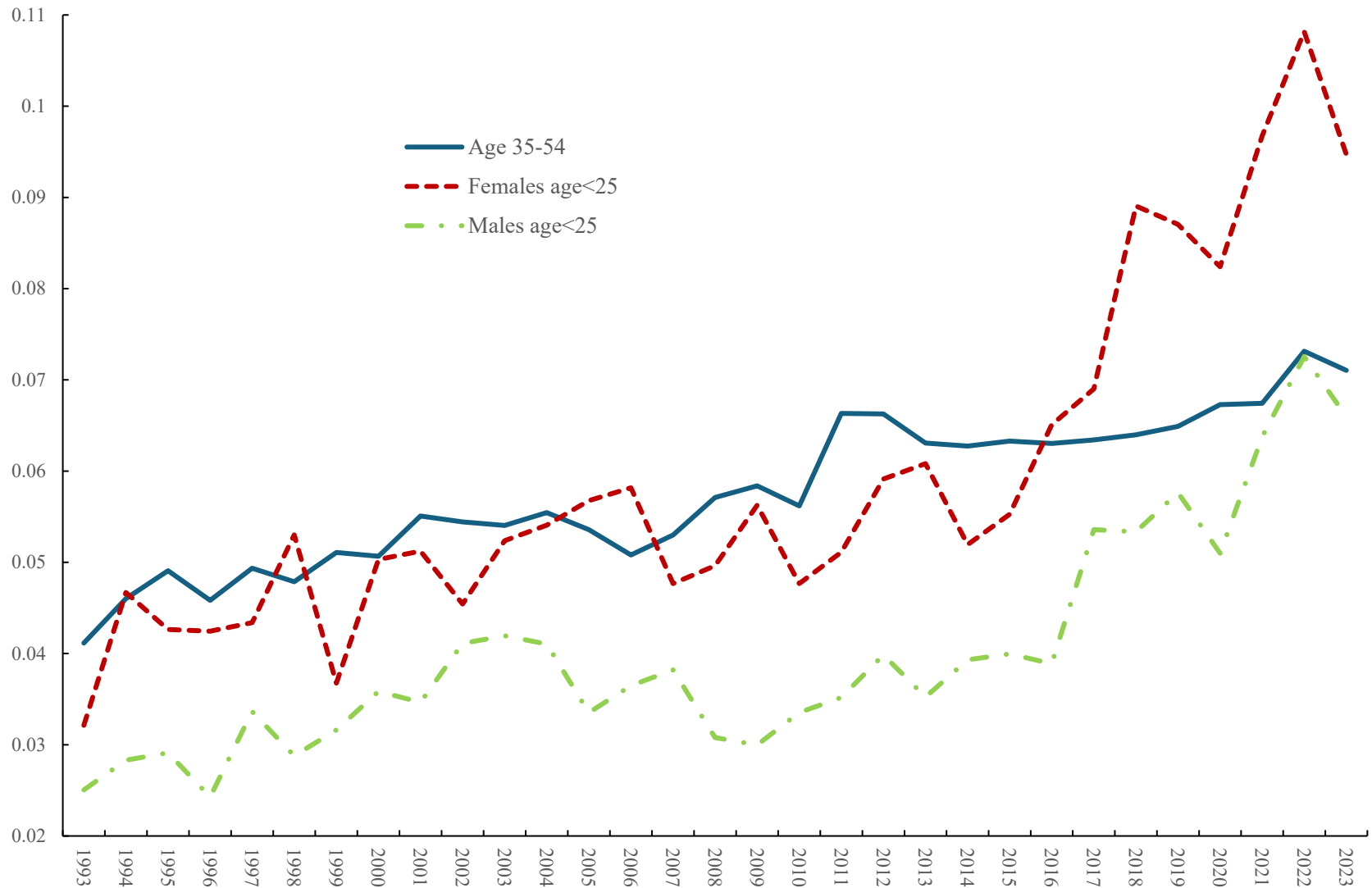


Chart 3. Despair in the USA by Age, BRFSS 1993-2023

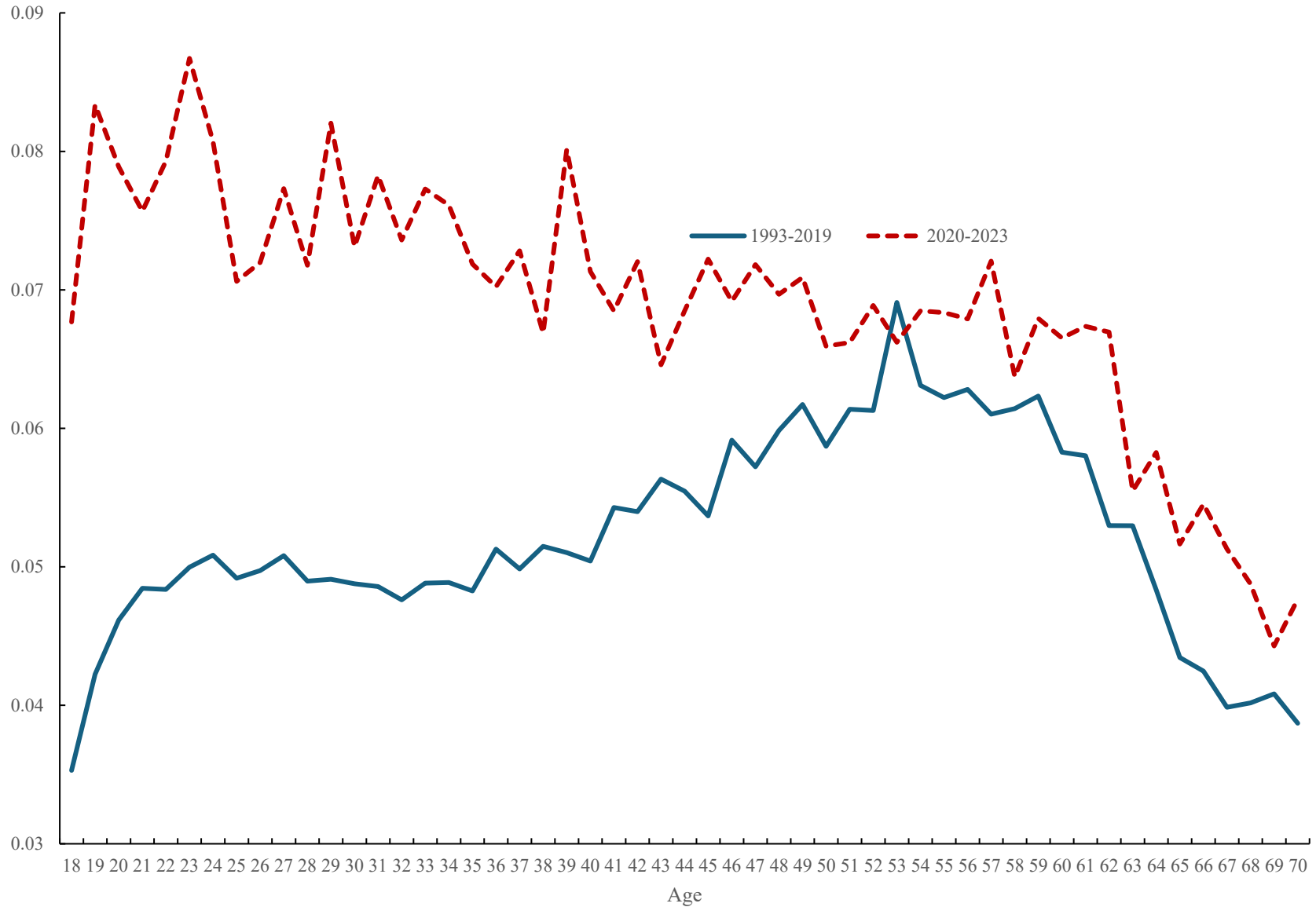


Chart 4. 30/30 Bad physical health days. age<25 BRFSS

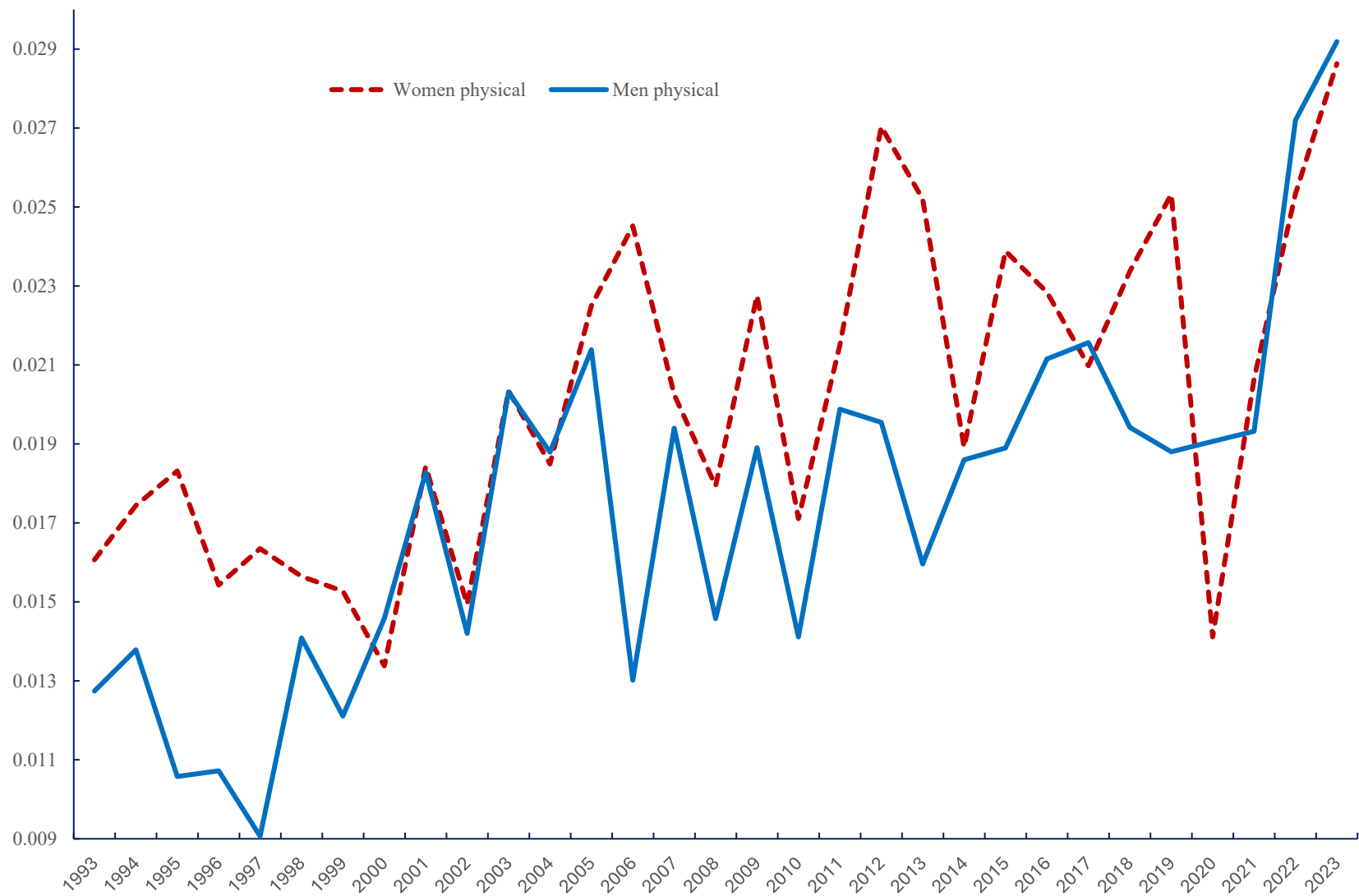
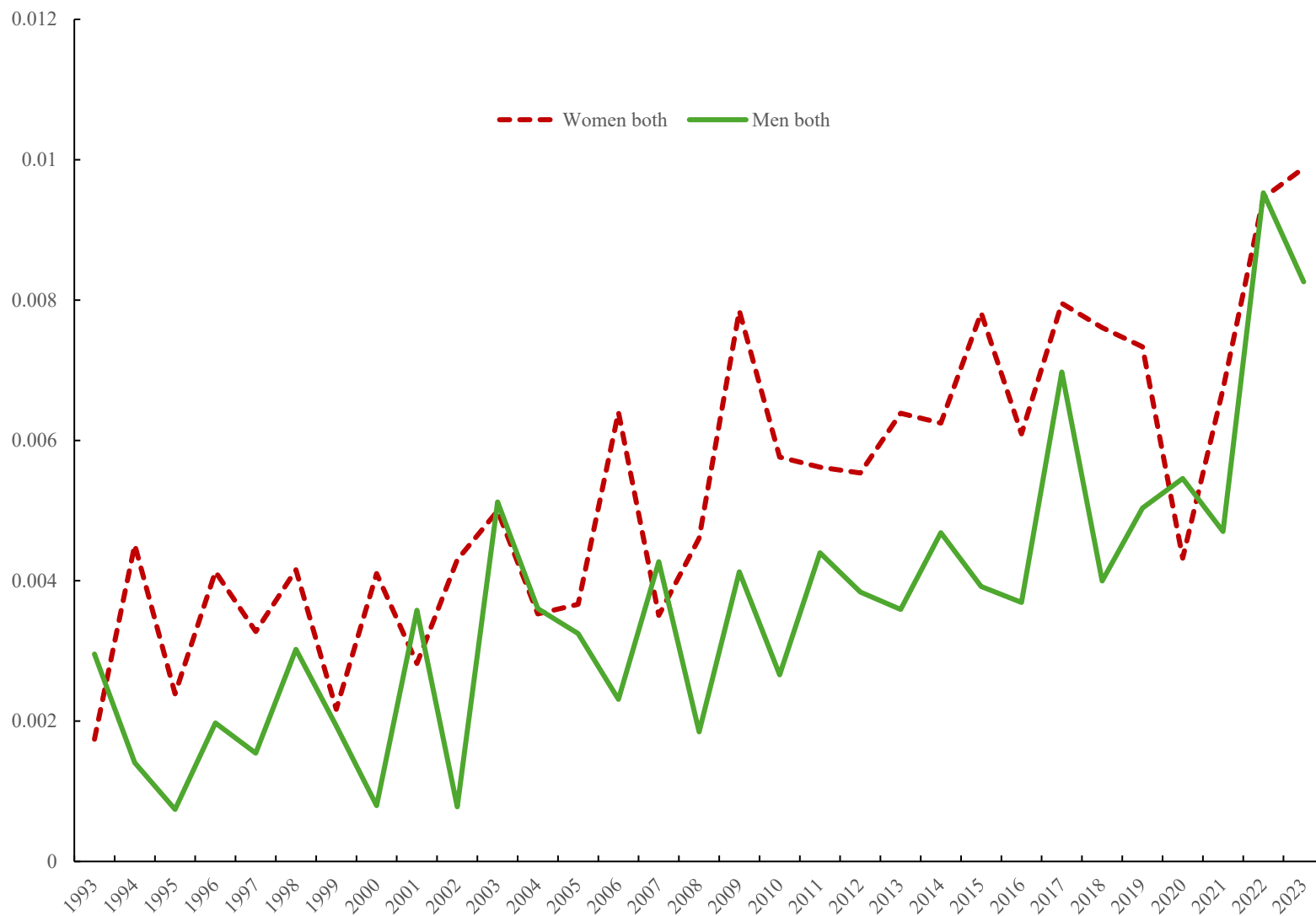


Chart 5. 30/30 bad physical **and** bad mental health days, age<25 BRFSS



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