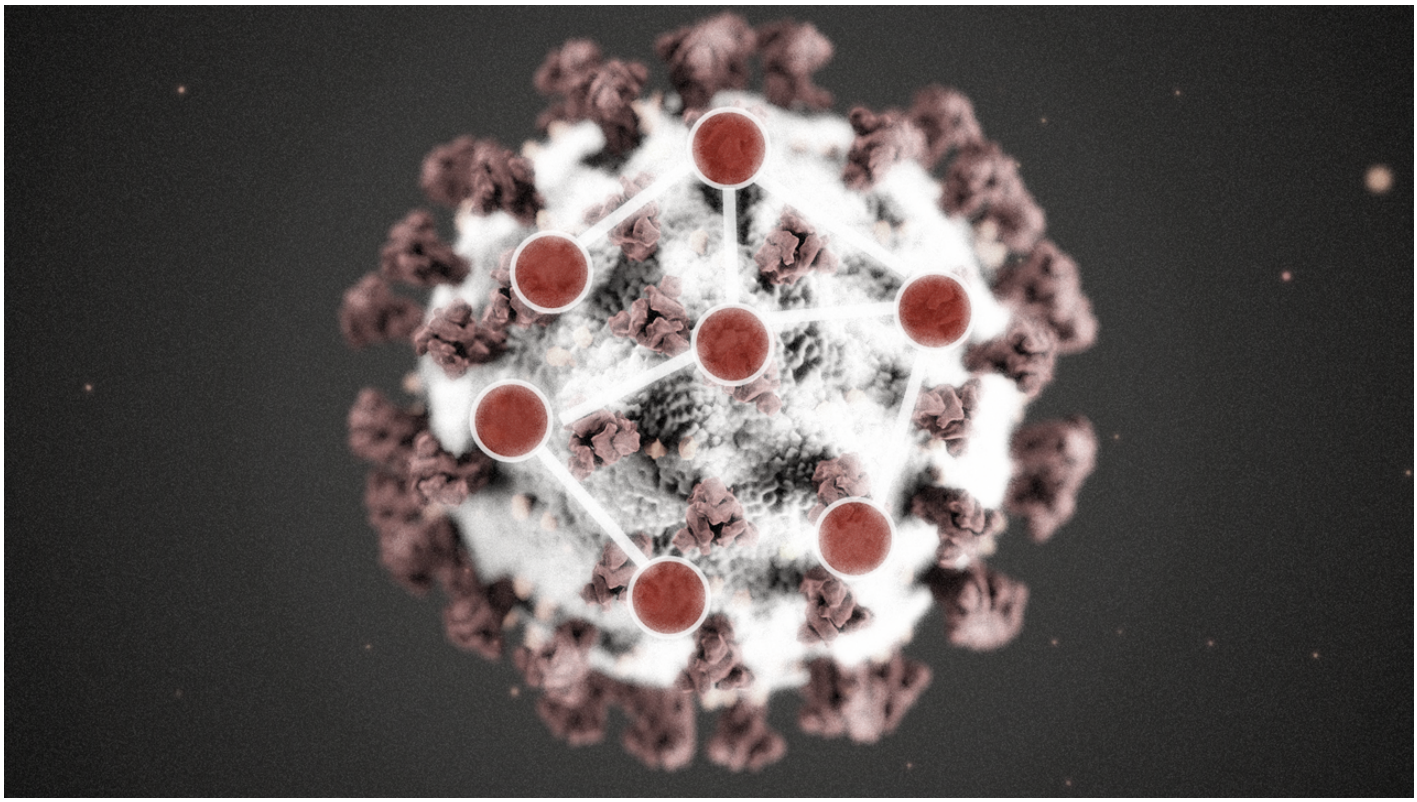

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THE COVID STATES PROJECT:
A 50-STATE COVID-19 SURVEY
REPORT #101: MENTAL HEALTH AMONG YOUNG ADULTS

USA, May 2023

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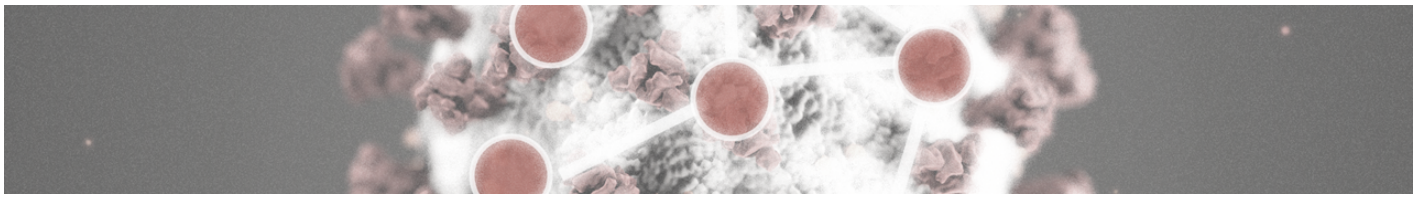

Report of May 22, 2023, v.1

The COVID States Project

***From*:** The COVID-19 Consortium for Understanding the Public's Policy Preferences Across States

A joint project of:
Northeastern University, Harvard University, Rutgers University, and Northwestern University

Authors: Roy H. Perlis (Harvard Medical School); Katherine Ognyanova (Rutgers University); David Lazer (Northeastern University); Jonathan Schulman, (Northwestern University); Alauna C. Safarpour (Harvard University); Matthew A. Baum (Harvard University); Mauricio Santillana (Harvard Medical School); Alexi Quintana (Northeastern University); Ata Uslu (Northeastern University); James Druckman (Northwestern University); Kristin Lunz Trujillo (Northeastern University); Jon Green (Northeastern University), and Hong Qu (Northeastern University)

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COVER MEMO

Summary Memo — May 22, 2023

The COVID States Project

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Partners: Northeastern University, Harvard University/Harvard Medical School, Rutgers University, and Northwestern University

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Note on methods:

Between April 5, 2023 and May 5, 2022, we surveyed 24,262 individuals age 18 and older across all 50 states plus the District of Columbia. The survey was conducted by PureSpectrum via an online, nonprobability sample, with state-level representative quotas for race/ethnicity, age, and gender (for additional details, see covidstates.org). In addition to balancing on these dimensions, we reweighted our data using demographic characteristics to match the U.S. population with respect to 2020 vote choice and turnout, race/ethnicity, age, gender, education, and living in urban, suburban, or rural areas. This was the latest in a series of surveys we have been conducting since April 2020, examining attitudes and behaviors regarding COVID-19 in the United States.

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Mental health among young adults

The mental health of children and adolescents has been the focus of two recent reports from the US Surgeon General's office. The first noted the prevalence of distress among young Americans and the need to invest in more systematic and accessible care. The second, in early May, addressed the impact of loneliness on mental health, recognizing that the disruption of social networks may have profound consequences for individual well-being. These reports come amidst other studies indicating that levels of distress among children and adolescents had increased prior to the pandemic, and likely increased further over the past several years. At the extreme, such distress may culminate in increased rates of emergency room visits and suicide attempts – but while these outcomes are the most straightforward to quantify, they represent only the extreme tail of a phenomenon that may be more broadly impacting young people.

The COVID States Project recently completed the 27th wave of a survey of adults in all 50 US states and the District of Columbia. With these data, spanning April 5 to May 5, 2023, we sought to understand two aspects of mental health not captured in recent reports. First, are young adults ages 18-24 still among the groups most impacted by the pandemic, as our prior reports suggested, even as emergency restrictions have waned? And second, are these effects uniform among young adults, or are there particular subgroups that have been disproportionately affected?

KEY FINDINGS

- Rates of depression remain highest among those ages 18-24, with nearly half (47%) reporting levels that would be considered sufficient to require further evaluation and possibly treatment. (By comparison, a 2019 survey found rates of 7% among those 18-29, or 21% including mild depression).

- A similar proportion of young adults (44%) report levels of anxiety that could suggest the need for further evaluation.

- These rates are substantially greater than those in older age groups - for example, 32% of those 25-44, and 22% of those 45-64.

- Rates have remained elevated in this age group throughout the pandemic, with 2 spikes - one prior to the 2020 election, and another in summer 2022.

- We see substantial variation in rates of depression among all adults from state to state: Levels of depression are greatest in West Virginia and Alaska, followed by Idaho, Utah, Mississippi, Vermont, and North Dakota. Levels are lowest in Wisconsin and Minnesota.

- There are large differences in rates of depression among young adults; rates are highest in those without a high school degree, those with the lowest levels of household income, and those who are unemployed.

- Young adults who identify politically as Independents were most likely to report depression, followed by Democrats and then Republicans.

- There are also geographic effects among young adults, with more depression among those in more rural settings. Rates of depression are greatest in the West and Midwest, and least in the South.

Mental health in America

We begin by looking at rates of moderate or greater depression, as measured by a standard primary care screening tool, the PHQ-9. In our most recent survey wave, 47% of young adults reported symptoms at a level that would be considered severe enough to require further evaluation and possibly treatment. This rate remains substantially greater than that of any other age group: 32% for those 25-44, 22% for those 45-64, and 9% for those 65 and older. The pattern has persisted throughout the pandemic, with relatively little variation - generally less than 5% from month to month. One exception was a spike in all age groups in fall of 2020 which may have corresponded to pre-election anxiety and depression, consistent with research documenting that the election was a significant source of stress for many Americans. Another spike between May and July 2022 was restricted to young adults.

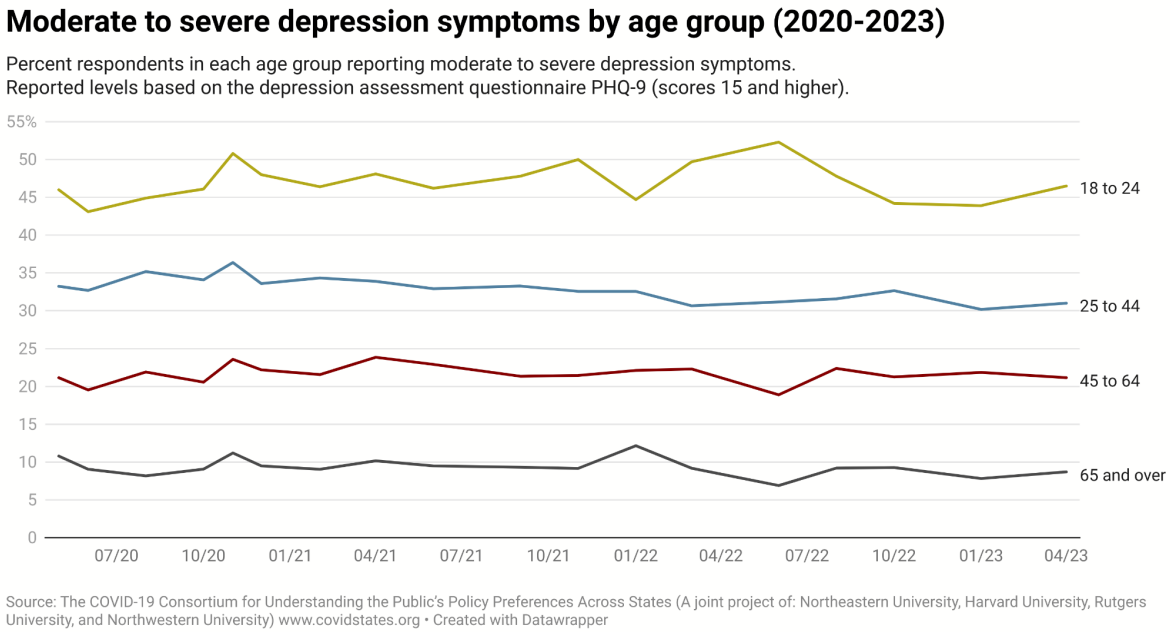


Figure 1.

Another way to consider symptoms of depression is by severity category, rather than just presence or absence. Rates of severe depression are nearly twice as great in young adults as 25-44 year olds (13% versus 7%), and 3 times as great as 45-64 year olds (13% versus 4%). A similar pattern holds for moderate-severe depression (15% among young adults, compared to 10% and 6% respectively).

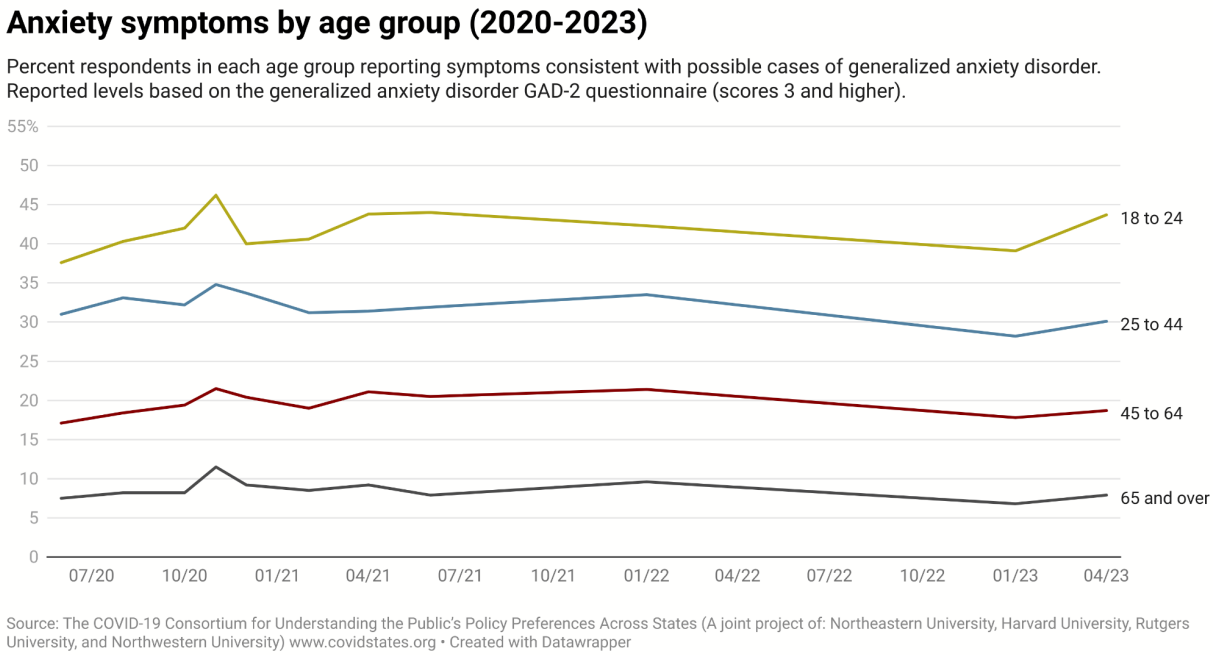


Figure 2.

As with depression, symptoms of anxiety are substantially more common among young adults as well - reported by 44% at a level that would be considered clinically meaningful, compared to 30% in 25-44 year olds, 19% in 45-65 year olds, and 8% in those 65 and older.

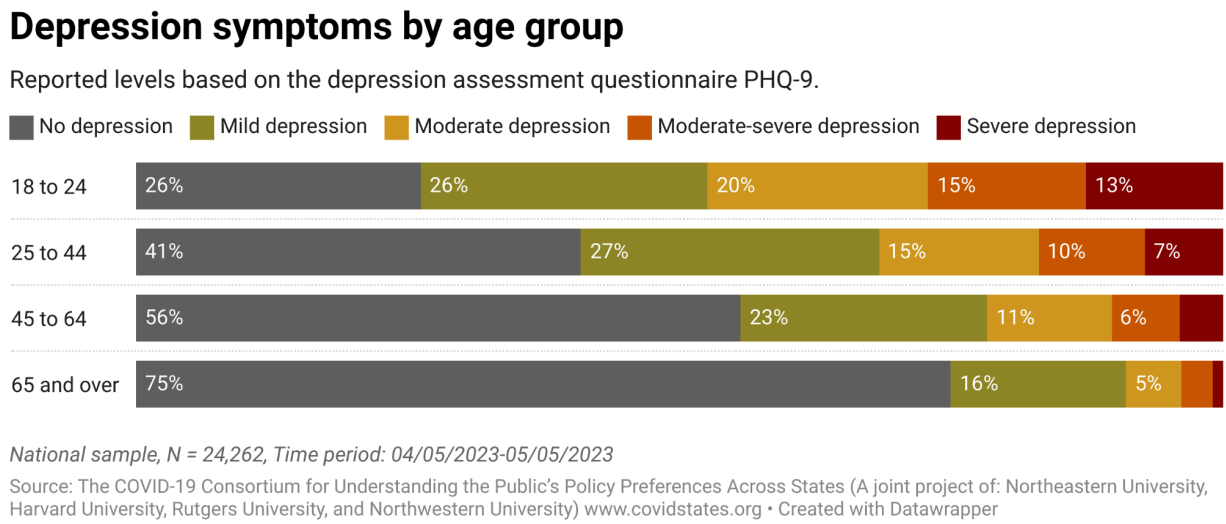


Figure 3.

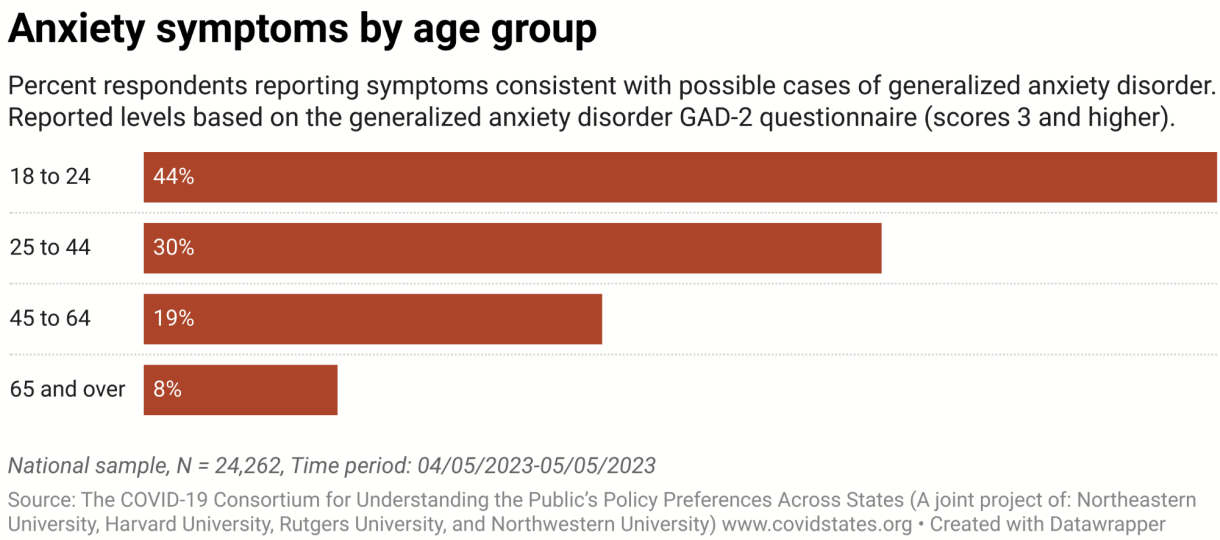


Figure 4.

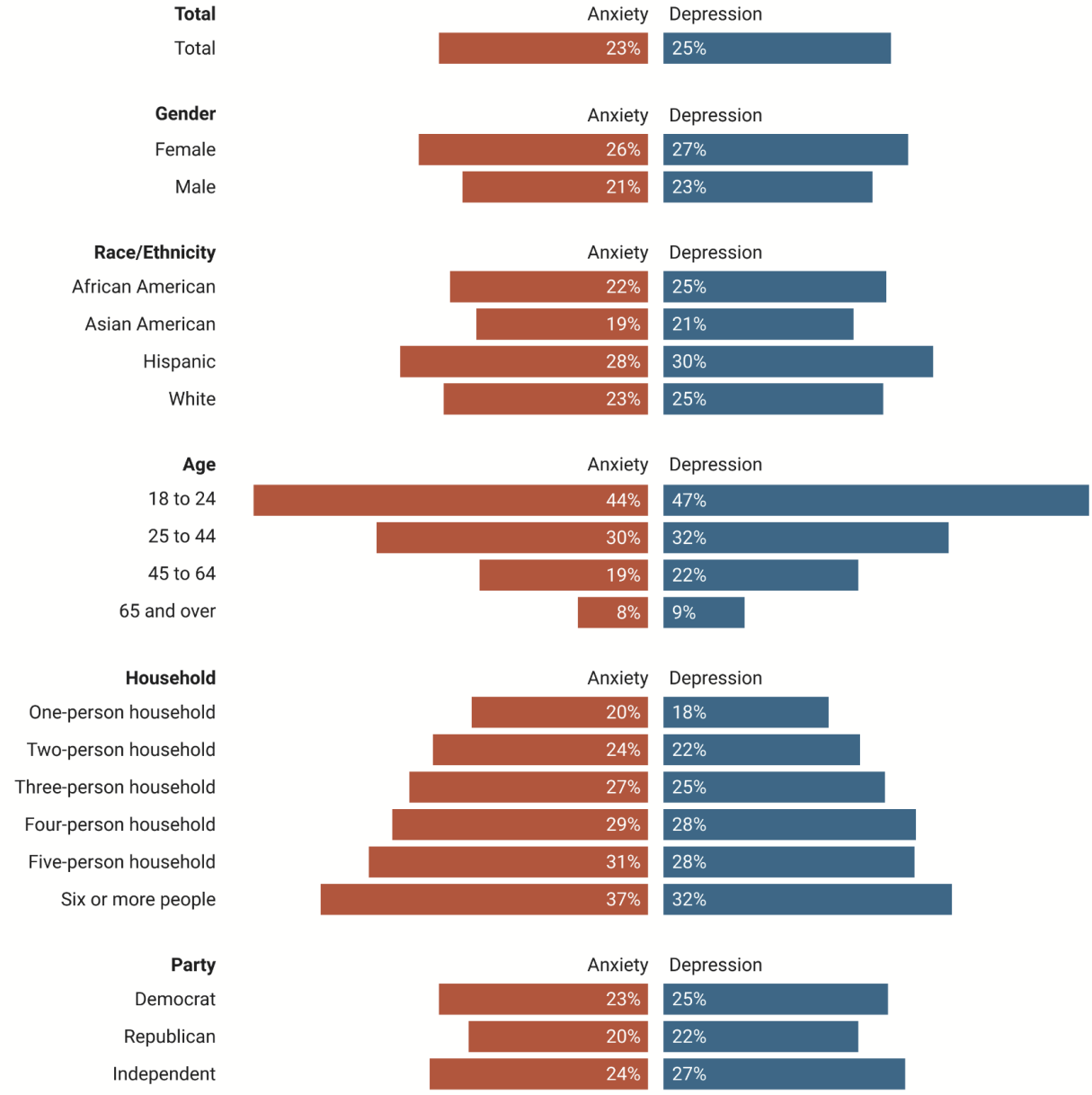
We then looked across all age groups at whether particular subgroups are particularly impacted by depression and anxiety. In general, women were slightly more likely to report depressive symptoms than men, as were respondents who identify as Hispanic, those who are younger, and those who live in households with more people. As in prior waves of the survey, those who identify politically as Independents were somewhat more likely to report depression (27%), followed by Democrats (25%) and then Republicans. Similar patterns held for anxiety symptoms.

We also found differences by socioeconomic status and education; those with less education completed and lower household income, and those who were students or unemployed, were more likely to report moderate or greater depression. For example, 39% of those who had not completed high school reported depression, compared to 28% who had completed high school but no further education, and 20% who had completed college. Close to 36% of those with an annual household income of $25,000 or less reported depression, compared to 17% of those with an income of $100,000 or greater. Employment status was also associated with large differences: among those with full-time employment, 25% were depressed, compared to 39% of students and 40% of those who were unemployed.

Notably, some of these differences may simply be reflections of depression being greater in younger age groups (that is, those who are younger have completed less education, have lower incomes, and are more likely to be students). However, in linear regression models that allow us to specifically adjust for the effects of age, we do still see effects of education, income, and employment status.

Depression and anxiety among Americans by demographic group

Percent respondents reporting symptoms consistent with moderate to severe depression and generalized anxiety disorder. Reported levels based on PHQ-9 and GAD-2 questionnaire scores.



National sample, N = 24,262, Time period: 04/05/2023-05/05/2023

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Figure 5.

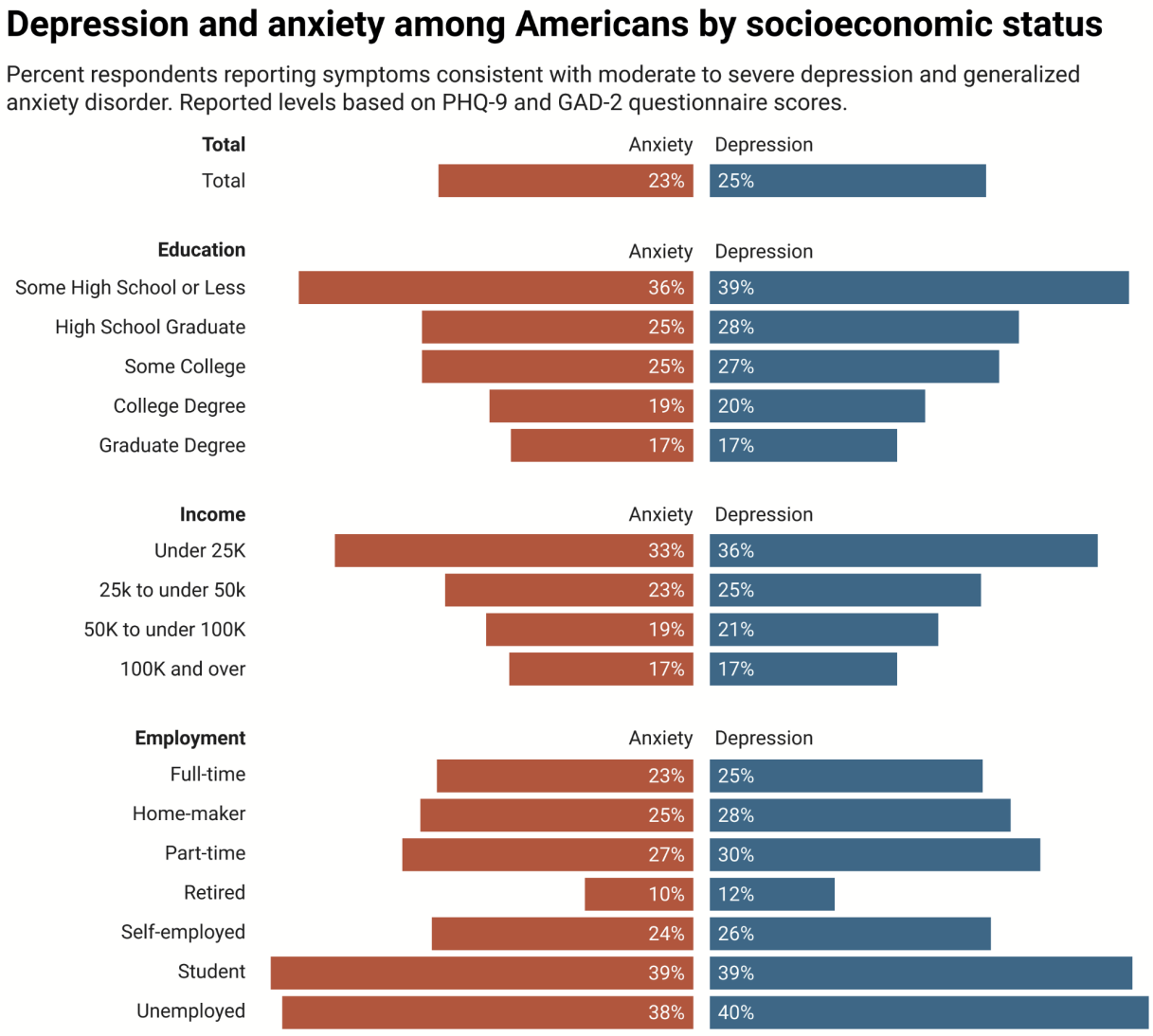


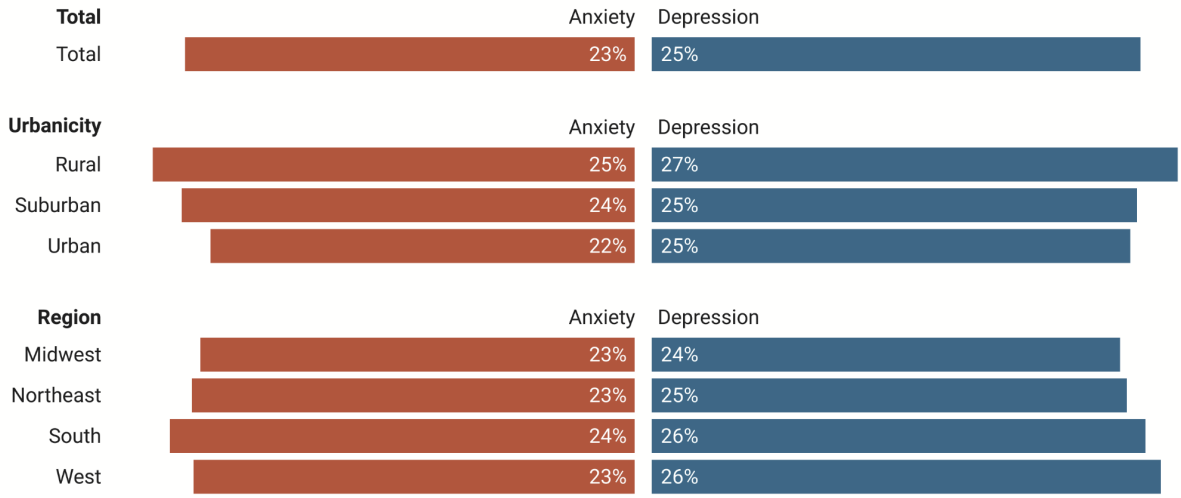
Figure 6.

Overall, we do not see large differences in depression between survey respondents who live in more rural versus more urban settings, nor between those in different regions of the United States.

However, when we look at individual states, wide variability in the proportion of people reporting symptoms of depression emerges. Levels of depression are greatest in West Virginia and Alaska, followed by Idaho, Utah, Mississippi, Vermont, and North Dakota. Levels are lowest in Wisconsin and Minnesota. We do not see clear regional patterns.

Depression and anxiety among Americans by region

Percent respondents reporting symptoms consistent with moderate to severe depression and generalized anxiety disorder. Reported levels based on PHQ-9 and GAD-2 questionnaire scores.



National sample, N = 24,262, Time period: 04/05/2023-05/05/2023

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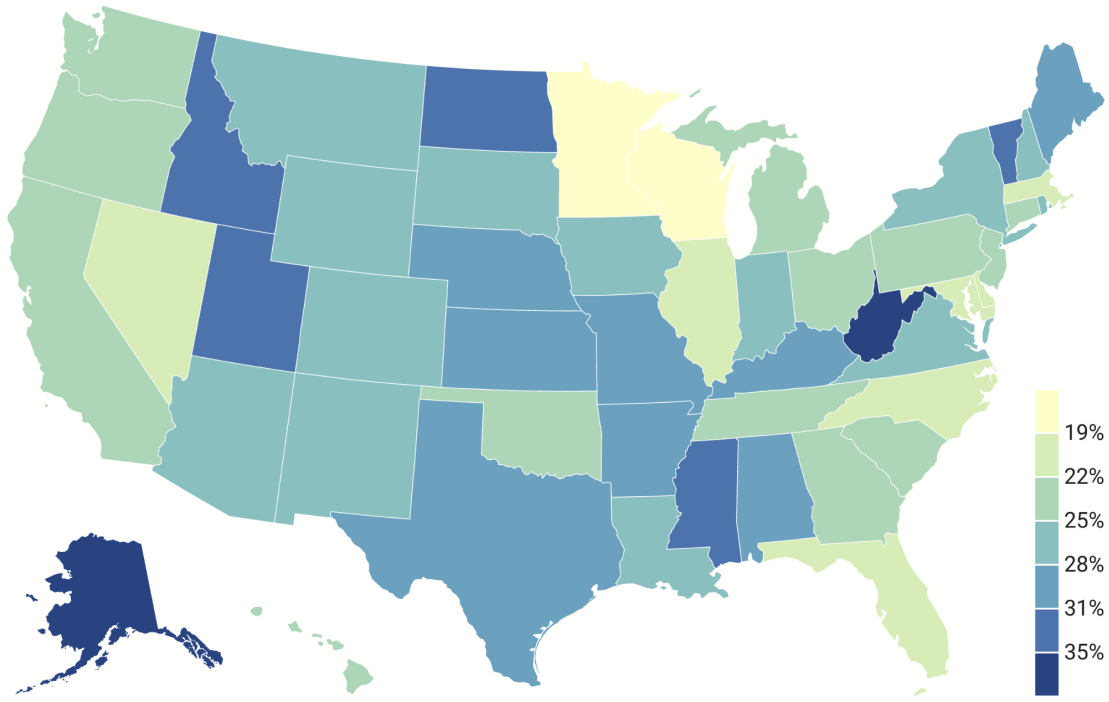
Figure 7.

Moderate to severe depression by state

Percent respondents reporting symptoms of moderate to severe depression by state. Reported levels based on the depression assessment questionnaire PHQ-9.



National sample, N = 24,262, Time period: 04/05/2023-05/05/2023

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Figure 8.

Geographic patterns for anxiety are similar but not identical, with greatest levels in Alaska and West Virginia but also Vermont, New Mexico, Mississippi, and Arkansas.

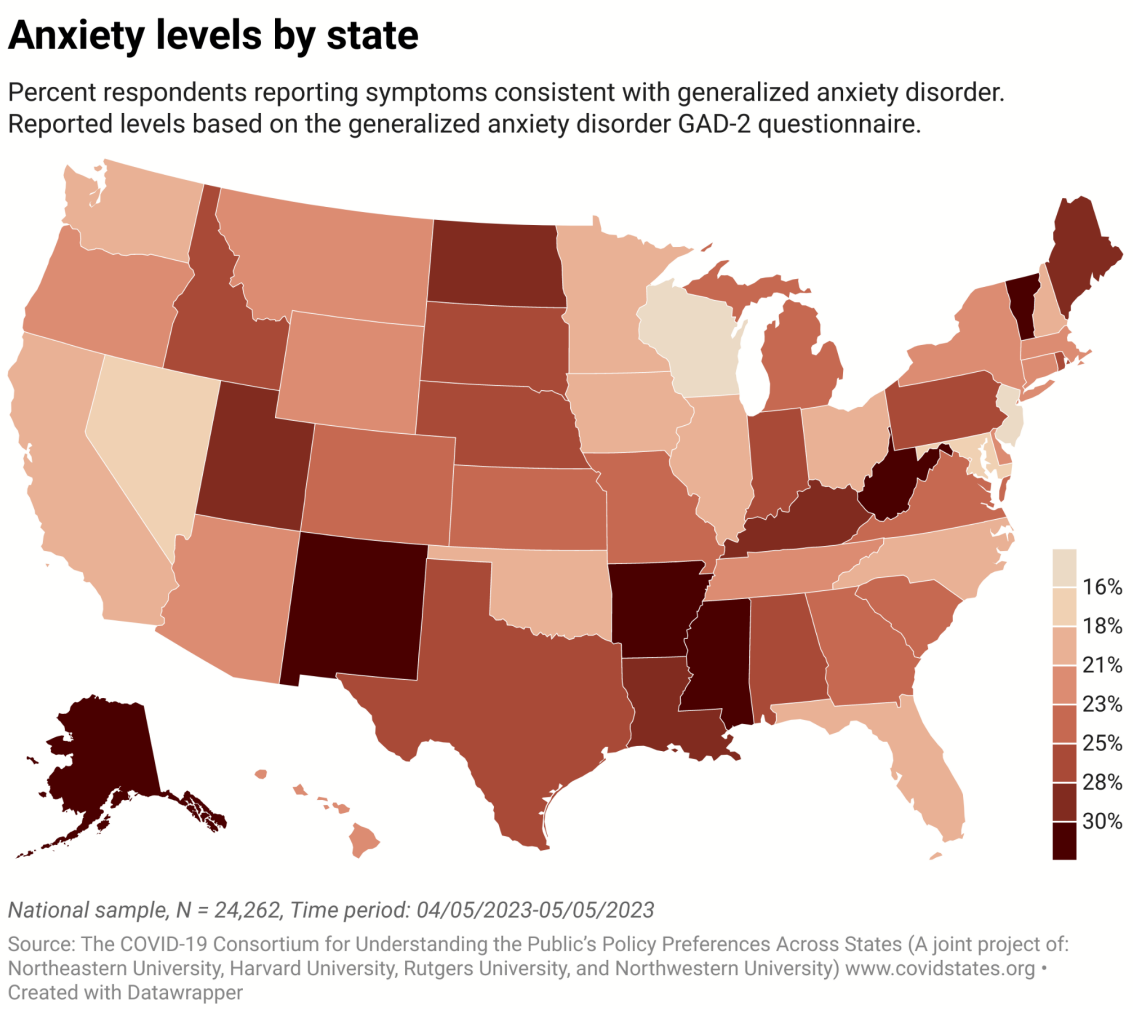


Figure 9.

Most discussions of young adults and mental health have treated this group as a single entity - that is, as if all young adults are struggling in similar ways. We tried to look more closely to see if there are large differences among young adults, and if these patterns are similar to those in the adult US population as a whole. Once again, depression was more common among women than men, and less common among Asian Americans. Differences between other racial or ethnic groups were less pronounced. Depression did vary by household size - as with adults more generally, living alone was associated with lower levels of depression - but otherwise did not follow a clear pattern. And once again, levels of depression were greatest among those identifying as politically Independent, compared to Democrats or Republicans.

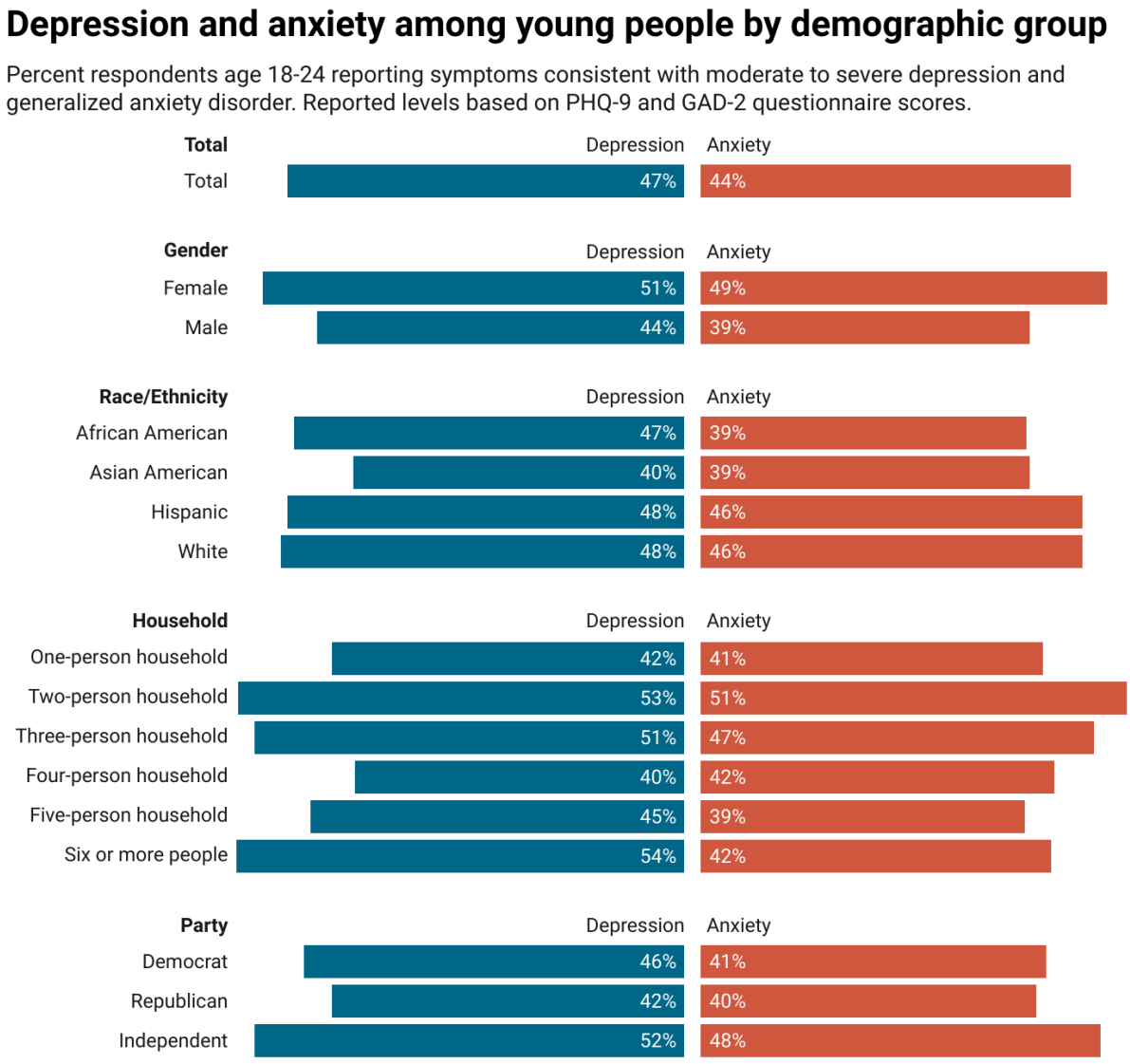


Figure 10.

Patterns by socioeconomic status were also similar, with greatest levels of depression among those who had completed the least education and had the lowest incomes. Differences here were particularly stark - 59% of those without a high school degree reported depression, compared to 34% with a college degree. Similarly, 55% of those with household income less than $25,000 per year reported depression, compared to 37% of those with income of $100,000 or more. However, in this age group, while those who were unemployed reported the greatest levels of depression (55%), this was followed by those employed full time (50%); levels were lowest among those who are students (42%).

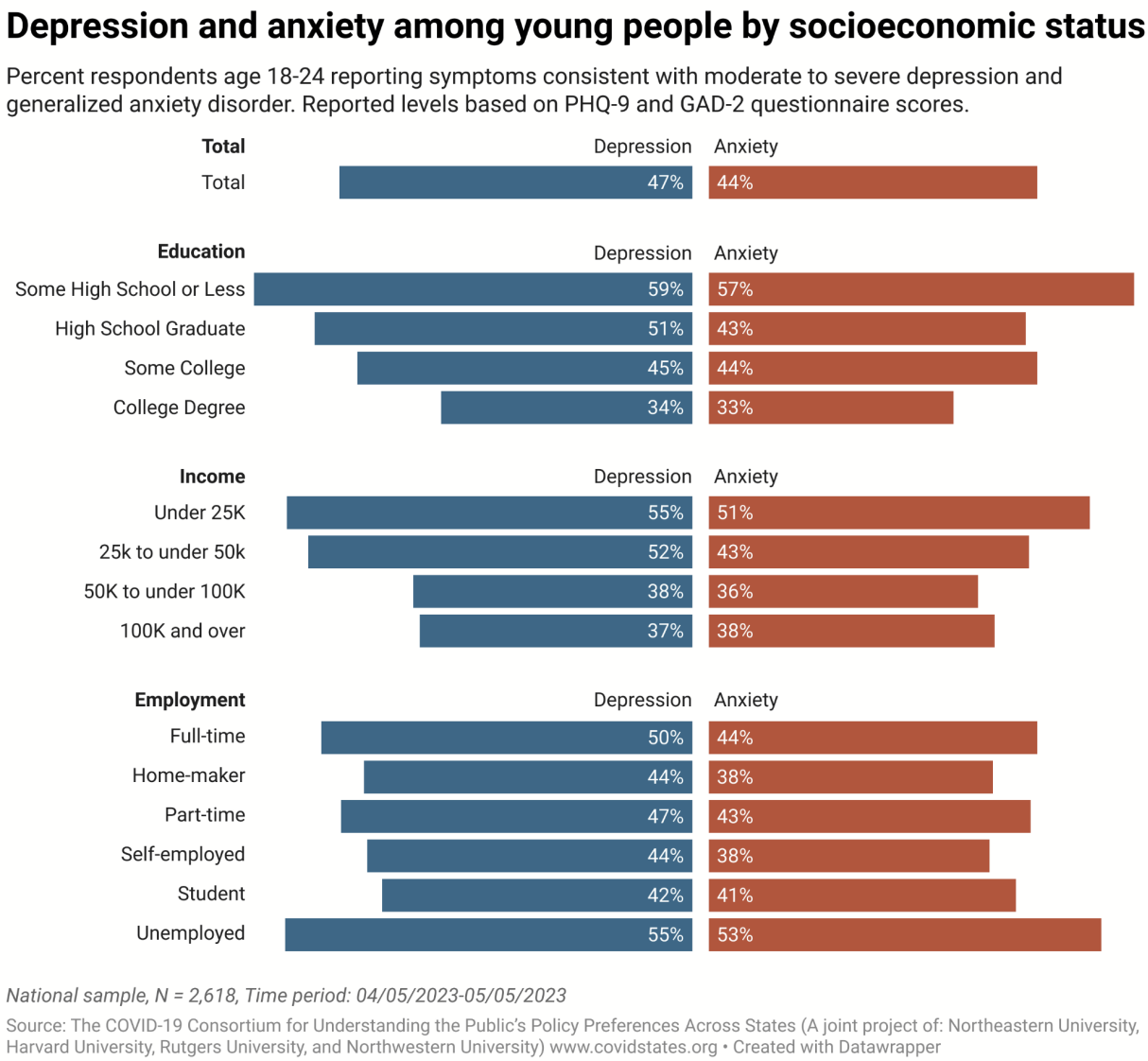
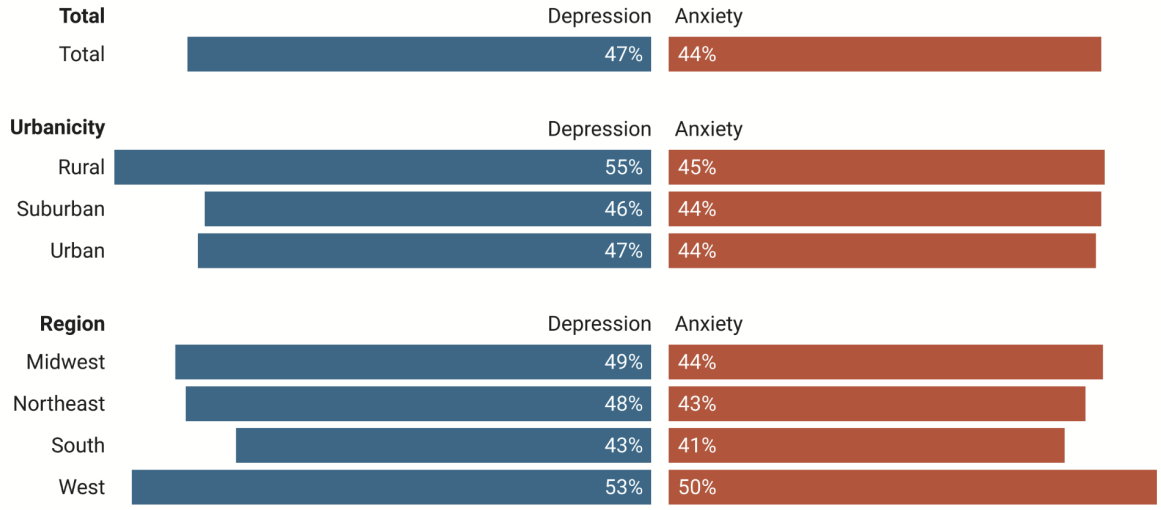


Figure 11.

Another difference from the adult population as a whole emerged in terms of geography. Those young adults in rural settings were more likely to report depression (55%) compared to suburban (46%) or urban (47%) settings. (On the other hand, no such difference was detected for anxiety). Rates of depression also differed by US region and were greatest in the West (53%) and Midwest (49%) and least in the South (43%). (We would need a larger survey sample of young adults to reliably estimate rates of depression in individual states.)

Depression and anxiety among young people by region

Percent respondents age 18-24 reporting symptoms consistent with moderate to severe depression and generalized anxiety disorder. Reported levels based on PHQ-9 and GAD-2 questionnaire scores.



National sample, N = 2,618, Time period: 04/05/2023-05/05/2023

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Figure 12.

Appendix A: State Data

Percent respondents reporting symptoms consistent with moderate to severe depression and generalized anxiety disorder. Reported levels based on PHQ-9 and GAD-2 questionnaire scores.

State	Depression (%)	Anxiety (%)	N	Margin of error
AK	36	33	293	8
AL	30	26	501	6
AR	30	31	419	6
AZ	26	23	515	5
CA	24	20	984	4
CO	27	25	477	6
CT	23	22	389	6
DC	23	21	341	6
DE	21	22	354	6
FL	21	18	593	5
GA	23	23	544	5
HI	24	21	407	6
IA	26	20	409	6
ID	34	26	432	6
IL	20	20	646	4
IN	26	26	453	6

KS	29	23	405	6
KY	29	30	443	6
LA	28	28	418	6
MA	21	23	449	5
MD	22	17	455	5
ME	30	29	448	6
MI	25	25	612	5
MN	16	19	440	5
MO	30	25	493	6
MS	33	32	399	7
MT	27	23	435	6
NC	20	19	590	5
ND	32	29	372	7
NE	29	27	360	7
NH	25	20	302	7
NJ	22	16	547	5
NM	28	32	371	7
NV	21	17	420	6
NY	25	21	726	5
OH	24	21	527	5
OK	23	21	448	6
OR	23	23	437	6
PA	23	26	499	5

RI	25	27	430	6
SC	23	24	481	5
SD	27	26	371	7
TN	23	23	558	5
TX	29	27	657	5
UT	33	30	345	7
VA	26	24	490	6
VT	32	32	316	7
WA	24	19	607	5
WI	16	14	470	5
WV	38	31	369	7
WY	26	22	322	7