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## Suicidal ideation, suicide attempt, and occupations among employed adults aged 18–64 years in the United States

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### Abstract

**Objective**—Approximately 70% of all US suicides are among working-age adults. This study was to determine whether and how 12-month suicidal ideation and suicide attempt were associated with specific occupations among currently employed adults aged 18–64 in the U.S.

**Methods**—Data were from 184,300 currently employed adults who participated in the 2008–2013 National Surveys on Drug Use and Health (NSDUH). NSDUH provides nationally representative data on suicidal ideation and suicide attempt. Descriptive analyses and multivariable logistic regressions were conducted.

**Results**—Among currently employed adults aged 18–64 in the U.S., 3.5% had suicidal ideation in the past 12 months (3.1% had suicidal ideation only, and 0.4% had suicidal ideation and attempted suicide). Compared with adults in farming, fishing, and forestry occupations (model adjusted prevalence (MAP) = 1.6%), adults in the following occupations were 3.0–3.6 times more likely to have suicidal ideation in the past year (model adjusted relative risks (MARRs) = 3.0–3.6): lawyers, judges, and legal support workers (MAP = 4.8%), social scientists and related workers (MAP = 5.4%), and media and communication workers (MAP = 5.8%).

**Conclusions**—Among employed adults aged 18–64 in the U.S., the 12-month prevalence of suicidal ideation varies by occupations. Adults in occupations that are at elevated risk for suicidal ideation may warrant focused suicide prevention.

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Disclaimers: The findings and conclusions of this study are those of the authors and do not necessarily reflect the views of the Substance Abuse and Mental Health Services Administration, the Centers for Disease Control and Prevention, and National Institute on Drug Abuse of the National Institutes of Health, or the U.S. Department of Health and Human Services.

## 1. Introduction

Suicide is the 10th leading cause of death in the U.S. In 2013, there were approximately 41,149 reported deaths by suicide, and 70% of all suicides were among working-age adults [1]. Several studies have assessed relationships between deaths by suicide and certain occupations [2–7]. Some studies connect occupational suicide with environmental characteristics such as socioeconomic factors [8–9] and self-selection of high-risk people for certain occupations [5]. Various occupation related factors may be associated with deaths by suicide, such as easy access to a means of suicide, frequent exposure to deaths, recent experience of stressful life events (e.g., job termination), social isolation at work, high psychological demands, low decision latitude, and long working hours [2–7].

Suicidal ideation is associated with suicide attempts and death by suicide [10–11], and a suicide attempt history is the strongest known clinical predictor for death by suicide [12–13]. Moreover, many suicide attempters have long-term mental and physical health and social problems [14]. In 2013, 9.3 million adults reported seriously considering suicide (suicidal ideation), and over 1.3 million adults reported that they attempted suicide in the past 12 months [15]. Since targeted suicide prevention and treatment strategies focus on population with suicide risk, suicide risk assessments often begin after finding evidence of suicidal ideation [12, 16]. Nevertheless, little is known about the relationships between suicidal ideation, suicide attempt, and occupations.

Thus, this study aimed to gain a better understanding of whether and how the 12-month prevalence of suicidal ideation and attempting suicide varied by occupations among currently employed adults aged 18–64 in the U.S. In particular, we aimed to identify adults in specific occupations that are at elevated risk for suicidal ideation and suicide attempt after controlling for sociodemographic characters, health status, and mental disorders. The results of this study may help to explicate the complex relationships between occupation and suicidal ideation and behavior. Results may thereby inform clinicians, employers, policymakers, and the general public about adults in specific occupations at elevated suicide risk, with an ultimate goal of developing effective suicide prevention and intervention efforts in clinical settings, at workplaces, and in communities.

## 2. Methods

### 2.1. Study sample

We examined 184,300 currently employed (full-time or part-time) persons aged 18–64 who participated in the 2008–2013 National Surveys on Drug Use and Health (NSDUH, restricted-use data). The NSDUH has been providing nationally representative data on suicidal ideation and suicide attempt among the U.S. civilian, non-institutionalized population aged 18 or older since 2008. It is an annual survey conducted by the Substance Abuse and Mental Health Services Administration (SAMHSA). NSDUH employed a state-based design with an independent, multistage area probability sample within each state and the District of Columbia. The eight states with the largest population were designated as large sample states (California, Florida, Illinois, Michigan, New York, Ohio, Pennsylvania, and Texas) and had a sample size of about 3600 each. For the remaining 42 states and the

District of Columbia, the sample size was about 900 per state. Data are collected by interviewers during in-person visits to households and non-institutional group quarters. The interview averages about an hour. Audio computer-assisted self-administered interviewing is used, providing respondents with a private, confidential way to record answers. The overall weighted response rate for 2008 through 2013 NSDUH ranged from 60.2% to 66.8%. SAMHSA requires that any description of overall sample sizes based on the restricted-use data files has to be rounded to the nearest 100, which intends to minimize potential disclosure risk. Further detailed descriptions of the data source are available from the SAMHSA website [17–18].

## 2.2. Measures

The 2008–2013 NSDUH assessed 12-month suicidal ideation among adults aged 18 or older using a single question asking whether the respondent had seriously thought about killing himself or herself in the past 12 months before the survey interview. Those who reported that they had suicidal ideation were also asked if they had tried to kill themselves in the past 12 months.

Adult respondents were also asked to describe the type of current occupation and industry in which they worked at the time of survey interview. Respondents' occupations were classified based on the U.S. Census Bureau Occupation Codes [19]. Due to its large sample size, this study was able to examine all the civilian occupation categories in the U.S., including farming, fishing, and forestry occupations; engineers, architects, and surveyors; executive, administrative, and managerial occupations; mathematical and computer scientists; food preparation occupation (machine operators); physical scientists; health diagnosing and treating practitioners; financial related occupations; counselors, social, and religious workers; construction trades and extraction workers; installation, maintenance, and repair workers; production and operating workers; management related occupations; education, training, and library workers; setters, operators, and tenders; teachers; protective service occupations; entertainers, performers, sports, and related; transportation and material moving workers; cleaning and building service occupations; office and administrative support workers; health care technical and support occupations; lawyers, judges, and legal support workers; personal care and service workers; engineering and related technicians; life, physical, and social science technicians; sales and related workers; social scientists and related workers; entertainment attendants and related workers; food preparation and serving related occupations; and media and communication workers.

The NSDUH captured a respondent's self-rated health and the number of emergency department visits (for any reason) in the past year. We assessed them because these health indicators were associated with suicidal ideation [20]. This study also examined mental health status, including 12-month substance use disorders (SUD, illicit drug or alcohol dependence or abuse) (yes/no) and major depressive episode (MDE) (yes/no). SUD and MDE were classified based on the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (DSM-IV) criteria [21]. Both SUD and MDE were strongly associated with suicidal ideation [20].

We assessed the following sociodemographic characteristics: age (18–29, 30–49, or 50–64 years), gender, race/ ethnicity (non-Hispanic white, non-Hispanic black, non-Hispanic other, or Hispanic), education (less than high school education, high school education, some college education, or college education or beyond), current employment (full-time or part-time), marital status (married, widowed, divorced or separated, or never married), family income as a percentage of Federal Poverty Level (FPL) (<100%, 100%–199%, or 200%), and health insurance coverage (private only, the uninsured, Medicaid, or other), census region (Northeast, Midwest, South, or West), and metropolitan statistical area (large, small, or non-metro).

### 2.3. Statistical analysis

First, we examined the sociodemographic characteristics, health status, mental health status, and current occupations among currently employed persons aged 18–64. Second, we estimated the prevalence of suicidal ideation by these factors. Third, bivariate logistic regression models were applied to assess the unadjusted associations between suicidal ideation and these factors. Next, multivariable logistic regression modeling was applied to assess model-adjusted 12-month prevalence of suicidal ideation by occupation and model-adjusted risk ratios (MARR) (using PREDMARG and PRED\_EFF statements in SUDAAN) [22–23], after controlling for potentially confounding factors, such as sociodemographic factors, health status, mental health status, and substance use disorders. We then applied (bivariate and multivariable) multinomial logistic regressions to examine whether and how occupations were associated with having suicidal ideation only as well as having suicidal ideation and attempting suicide. In addition to the main effects, we examined potential interaction effects and did not find significant interactions. Furthermore, multicollinearity was assessed by analyzing the variance inflation factor and was not found in the final multivariable pooled model. SUDAAN software [23] was used to adjust for the complex sample design and sampling weights of the NSDUH.

## 3. Results

### 3.1. Study sample characteristics

Table 1 shows that the three most common occupations were office and administrative support workers (12.7%), sales and related workers (10.2%), and executive, administrative, and managerial occupations (9.7%). About 80.3% were full-time employed, 33.9% had a college or higher degree, 55.0% were married, 73.0% had private health insurance only, 10.0% had 12-month SUD, and 6.1% had 12-month MDE.

### 3.2. Unadjusted prevalence of suicidal ideation regardless of suicide attempt

The unadjusted 12-month prevalence of suicidal thoughts varied by occupations (Table 1), ranging from 6.8% among media and communication workers, 5.7% among those in food preparation and serving related occupations, 5.5% among entertainment attendants and related workers, 4.8% among social scientists and related workers, 4.7% among sales and related workers, 4.6% among life, physical, and social science technicians, 4.5% among engineering and related technicians, to 1.3% among adults in farming, fishing, and forestry occupations. The prevalence of suicidal ideation was higher among adults aged 18–29

(5.5%) and among those 30–49 years (3.2%) than among adults aged 50–64 (2.3%). It was higher among women (3.9%) than among men (3.1%), was higher among non-Hispanic whites (3.7%) than among non-Hispanic blacks (3.0%) and among Hispanics (2.9%), was higher among non-college graduates (3.8–3.9%) than among college graduates (2.8%), and was lower among full-time employed adults (3.1%) than among part-time employed adults (5.1%).

The prevalence of suicidal ideation was lower among married adults (2.3%) than among adults who were not married (3.6–5.2%), was higher among adults who were at less than 200% FPL (4.2–5.5%) than among adults who were at 200% or higher FPL (3.1%), was lower among adults with private health insurance only (3.0%) than among the uninsured adults (5.6%), and was lower among adults residing in the South (3.2%) than among adults residing in the West (3.8%).

The prevalence of suicidal ideation was higher among adults who did not rate their health as excellent (3.1–7.3%) than among adults who rated their health as excellent (2.1%), was higher among adults with 12-month emergency department visits (5.1–10.3%) than among adults without (2.8%), was higher among adults with SUD (9.9%) than among adults without (2.8%), and was higher among adults with MDE (25.2%) than among adults without (2.1%).

### 3.3. Adjusted prevalence of suicidal ideation regardless of suicide attempt

After adjusting for all the covariates presented in Table 2, the final multivariable logistic regression model for 12-month suicidal ideation shows that occupation was significantly associated with suicidal ideation. Compared with adults in farming, fishing, and forestry occupations (model adjusted prevalence (MAP) = 1.6%), adults in the following occupations were 3.0–3.6 times more likely to have suicidal ideation in the past year (model adjusted relative risks (MARRs) = 3.0–3.6): lawyers, judges, and legal support workers (MAP = 4.8%); social scientists and related workers (MAP = 5.4%); and media and communication workers (MAP = 5.8%).

Also compared with adults in farming, fishing, and forestry occupations, adults in the following occupations were 2.0–2.6 times more likely to have suicide ideation in the past year (MARR = 2.0–2.6): production and operating workers (MAP = 3.1%); setters, operators, and tenders (MAP = 3.2%); education, training, and library workers (MAP = 3.3%); health diagnosing and treating practitioners (MAP = 3.3%); physical scientists (MAP = 3.3%); adults in management related occupations (MAP = 3.5%); adults in financial related occupations (MAP = 3.5%); health care technical and support occupations (MAP = 3.5%); personal care and service workers (MAP = 3.5%); adults in food preparation and serving related occupations (MAP = 3.6%); adults in cleaning and building service occupations (MAP = 3.6%); teachers (MAP = 3.7%); office and administrative support workers (MAP = 3.7%); life, physical, and social science technicians (MAP = 3.8%); adults in protective service occupations (MAP = 3.8%); engineering and related technicians (MAP = 4.2%); sales and related workers (MAP = 4.1%); and entertainment attendants and related workers (MAP = 4.2%).

Finally, compared with adults in farming, fishing, and forestry occupations, adults in the following occupations were 1.8–1.9 times more likely to have suicidal ideation in the past year (MARRs = 1.8–1.9): adults in executive, administrative, managerial occupations (MAP = 2.9%); mathematical and computer scientists (MAP = 2.9%); counselors, social, and religious workers (MAP = 2.9%); entertainers, performers, and sports related adults (MAP = 2.9%); construction trades and extraction workers (MAP = 2.9%); and installation, maintenance, and repair workers (MAP = 3.1%).

The following characteristics were associated with higher risk of suicidal ideation at the multivariate level: adults aged 18–49 (MARRs = 1.2–1.5), divorced/separated adults or never married adults (MARRs = 1.3–1.4), adults who did not rate their health as excellent (MARRs = 1.2–1.9), adults with 12-month emergency department visits (MARRs = 1.4–1.7), adults with SUD (MARR = 2.0), and adults with MDE (MARR = 8.7). The following factors were associated with lower risk of suicidal ideation: Hispanics and non-Hispanic blacks (MARRs = 0.7–0.8), full-time employed adults (MARR = 0.9), and adults residing in the South (MARR = 0.9).

### **3.4. Unadjusted prevalence of having suicidal ideation only and of having suicidal ideation and attempting suicide**

The bivariate associations between having suicidal ideation only and occupations (Table 3) were similar to the corresponding bivariate associations between having suicidal ideation (regardless of suicide attempt) and occupations. The unadjusted 12-month prevalence of having suicidal ideation and attempting suicide ranged from 0.04% among health diagnosing and treating practitioners to 0.78% among adults in food preparation and serving related occupations. Compared with adults in farming, fishing, and forestry occupations (unadjusted prevalence = 0.28%), adults in the following occupations were 2.3–2.8 times more likely to have suicidal ideation and to attempt suicide in the past year (unadjusted relative risk = 2.3–2.8): sales and related workers (0.65%); adults in cleaning and building service occupations (0.73%); and adults in food preparation and serving related occupations (0.78%). However, health diagnosing and treating practitioners were less likely to have suicidal ideation and to attempt suicide (unadjusted relative risk = 0.1) than adults in farming, fishing, and forestry occupations.

### **3.5. Adjusted prevalence of having suicidal ideation only and of having suicidal ideation and attempting suicide**

The adjusted prevalence of having suicidal ideation only ranged from 1.3% among adults in farming, fishing, and forestry occupations to 5.5% among media and communication workers (Table 4). After adjusting for covariates, compared with adults in farming, fishing, and forestry occupations (MAP = 1.3%), adults in the following occupations were 3.5–4.1 times more likely to have suicidal ideation in the past year (MARRs = 3.5–4.1): lawyers, judges, and legal support workers (MAP = 4.6%); social scientists and related workers (MAP = 5.1%); and media and communication workers (MAP = 5.5%). After adjusting for covariates, occupation was not significantly associated with 12-month suicide attempt ( $p = 0.399$ ).



## 4. Discussion

Suicidal ideation is a distressing experience that may lead to suicide attempt and death by suicide [12–13,20]. Based on nationally representative data, this is the first study to show that the 12-month prevalence of suicidal ideation, among employed adults in the U.S., varied by occupation even after controlling for sociodemographic characteristics, health status, mental health status, and substance use disorders. We identified adults in specific occupations at higher risk for suicidal ideation, particularly media and communication workers; lawyers, judges, and legal support workers; and social scientists and related workers. In contrast, adults in farming, fishing, and forestry occupations; engineers, architects, and surveyors; and adults in food preparation occupations (machine workers) were at lower risk for suicidal ideation. Adults in other occupations were at intermediate risk. Results were similar to the above when we examined those with suicidal ideation only (i.e. those without a suicide attempt).

Suicide risk assessments usually begin after having evidence of suicidal ideation [12,16]. Identifying groups at elevated risk for suicidal ideation is an important endeavor. Adults who work in a given occupation may share similar working environments and work-related stresses. We found in the U.S., a decreased risk of suicidal ideation among some categories of highly skilled workers (e.g., engineers, architects, and surveyors), but health diagnosing and treating practitioners, adults in the protective service occupations, and mathematical and computer scientists were at intermediate risk for suicidal ideation. Yet, health diagnosing and treating practitioners (e.g., physicians) and adults in the protective service occupations (e.g., police officers), rather than mathematical and computer scientists, were identified as having high suicide mortality rates [5,9,24–26].

One potential explanation could be that many occupations with increased suicide rates (such as police officers and health care providers) are also occupations providing a readily available lethal means for suicide (e.g., gun for police officers and fatal doses of medications for health care providers [9]) and are demanding jobs with markedly high internal occupational stress which may contribute to adverse psychological distress and suicidality [5,24–26]. Moreover, if the access to lethal means is coupled with a higher prevalence of mental disorders characterized by agitation, impulsiveness, and aggression [27–29], it is possible that adults in these occupations that are even at intermediate risk for suicidal ideation could yield more deaths by suicide. Furthermore, adults in the protective service occupations and health diagnosing and treating practitioners are frequently exposed to stressors, traumas, and deaths which may reduce their fear of death and increase their capability for death by suicide [4,24–26].

Our results suggest specific occupations at elevated risk for suicide ideation may not be the same occupations at elevated risk for death by suicide as reported by the previous studies [2–9]. One potential explanation may be that the prevalences of suicidal ideation by occupation presented in our study were adjusted for sociodemographic characteristics, health status, mental health status, and substance use disorders. However, the studies of death by suicide by occupation may not always have controlled for all these factors simultaneously [2,5,9,24–26]. Consequently, the rates of death by suicide by occupation seen in the literature may be

inconsistent with the prevalence of suicidal ideation reported in our study. Also, this finding is consistent with the notion that adults with suicidal ideation only and suicide completers may be interrelated but distinct groups [30–31]. Moreover, our results, in conjunction with other evidence [29–31], suggest that further studies are needed to better understand factors that trigger the transition from suicidal ideation to suicide completion and the role that an occupation plays in the transition. These results may also indirectly indicate the importance of means restriction or control among suicidal adults [32].

Furthermore, adults in specific occupations at elevated risk for suicidal ideation warrant focused suicide prevention. Providing appropriate help to suicidal adults at workplaces, in clinical settings, and in communities may prevent deaths by suicide. For example, the high prevalence of suicidal ideation among media and communication workers indicates the necessary media codes of conduct on suicide reporting [2]. The occupation specific stress among police officers (prone to sudden and unexpected situations, violence and potential death of others and themselves) may lead to adverse psychological consequences, such as posttraumatic stress disorder or burnout, which may contribute to suicidal ideation and suicide behavior [24]. Further education and research on police-specific stressors are needed to help promote awareness for those at risk and to increase the receipt of mental health treatment [25,33]. Mental health care could play an important role in reducing suicide risk [12–13,25,33]. Employers, clinicians, and families/friends need to help identify suicidal adults and reduce their stigma associated with mental health treatment seeking [34]. Implementation of adequate prevention programs, early psychosocial evaluation, and timely clinical assessment and treatment are needed for suicidal adults. Importantly, suicide prevention strategies in occupational settings should continue to emphasize efforts to restrict and limit access to lethal means [32].

In addition to identifying adults in specific occupations at elevated risk for suicidal ideation, this study found that among employed adults, those aged 18–49 were at increased risk for suicidal ideation and suicide attempt (data not shown) compared with those aged 50–64, which was consistent with the existing literature [20,35]. This study also confirmed findings of previous studies [20,36] that the following groups were at higher risk for both suicidal ideation and suicide attempt: adults with emergency department visits, adults with SUD, and adults with MDE.

This study has several limitations. First, self-reported data, such as those collected in the NSDUH, may be subject to underreporting and recall biases. Second, our results are only generalizable to the civilian, noninstitutionalized population aged 18–64 years who are employed in the U.S. Third, although this study is based on a large sample size ( $n = 184,300$ , including 9000 sampled 12-month suicidal ideators and 1300 sampled 12-month suicide attempters), our sample sizes for some occupations are not sufficient for examining suicide attempt. Further studies are needed to examine the relationships between the prevalence of suicide attempt and specific occupations among employed adults. Fourth, NSDUH respondents were classified into an occupation at the time of the survey interview but were asked about suicidal ideation and suicide attempt during the 12 months prior to the interview, thus any recent changes in occupation may have resulted in misclassification.



Fifth, to reduce false positives (individuals without serious intention to die) [37], NSDUH did not ask respondents whether they made suicide plans and attempts once they reported that they did not seriously think about killing themselves in the past 12 months. However, the prevalence of suicide attempt reported in this study may be underestimated because some attempters may have had suicidal ideation prior to the study window and because some attempters may not have serious thought of suicide. Through additional probing, an earlier study revealed that 0.8% of the sampled respondents were classified falsely as negative for suicide attempt [37]. Sixth, NSDUH questionnaires did not measure family history of suicide and suicide attempts and experience with stressful life events, so we could not examine these factors which may be related to suicidal ideation and suicide attempt. Seventh, suicidal ideation, suicide attempt, and mental disorders are already common in youth, and it is possible that the onset of suicidality and mental disorders occurred prior to age 18. Furthermore, the family background and socioeconomic features of youth may influence the choice and types of occupations in adulthood. However, because of the cross-sectional nature of NSDUH data and the lack of related information, this study could not examine these factors and could not establish either temporal or causal relationships. Finally, to focus and improve suicide prevention efforts, future research is needed to investigate which and how specific factors markedly affect the suicidality of those persons in a specific occupation.

Despite these limitations, to our knowledge, this is the first study found that among employed adults aged 18–64 in the U.S., the 12-month prevalence of suicidal ideation varied by selected occupations. Adults in occupations at elevated risk for suicidal ideation may warrant focused suicide prevention and timely mental health treatment. Our results may be informative for employers, clinicians, and families/ friends to early identify and assess suicidal adults and may help develop effective suicide prevention and intervention efforts at workplaces, in clinical settings, and in communities. Also, our results can be useful for further research examining occupational differences in factors contributing to the transition from suicidal ideation to suicide attempt or to death by suicide.

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**Table 1**

12-month suicidal ideation among currently employed persons aged 18–64, by occupation, socio-demographic characteristics, health status, and mental health status: annual average percentages and unadjusted relative risks, 2008–2013 NSDUH (n = 184,300).

Covariates	Study sample characteristics distribution weighted, % (SE)	Prevalence of suicidal ideation (SE)	Unadjusted relative risk 95% CI
Total	100 (0.00)	3.5 (0.07)	
Occupation			
1. Farming, fishing, and forestry occupations	0.7 (0.04)	1.3 (0.28)	1.0
2. Engineers, architects, and surveyors	1.7 (0.06)	1.7 (0.39)	1.3 (0.70–2.34)
3. Executive, administrative, and managerial occupations	9.7 (0.13)	2.3 (0.18)	<b>1.7 (1.11–2.67)</b>
4. Mathematical and computer scientists	3.0 (0.08)	2.4 (0.32)	<b>1.8 (1.09–2.87)</b>
5. Food preparation occupation (machine operators)	0.4 (0.02)	2.4 (0.54)	1.8 (0.97–3.28)
6. Physical scientists	0.6 (0.03)	2.4 (0.68)	1.8 (0.92–3.63)
7. Health diagnosing and treating practitioners	3.8 (0.08)	2.5 (0.32)	<b>1.9 (1.15–2.99)</b>
8. Financial related occupations	2.3 (0.06)	2.6 (0.43)	<b>1.9 (1.14–3.27)</b>
9. Counselors, social, and religious workers	2.0 (0.06)	2.6 (0.38)	<b>1.9 (1.17–3.20)</b>
10. Construction trades and extraction workers	5.7 (0.09)	2.7 (0.25)	<b>2.0 (1.31–3.18)</b>
11. Installation, maintenance, and repair workers	3.6 (0.07)	2.7 (0.30)	<b>2.0 (1.27–3.21)</b>
12. Production and operating workers	1.3 (0.04)	2.9 (0.56)	<b>2.2 (1.29–3.69)</b>
13. Management related occupations	2.3 (0.06)	3.0 (0.42)	<b>2.2 (1.37–3.68)</b>
14. Education, training, and library workers	1.0 (0.04)	3.0 (0.55)	<b>2.3 (1.31–3.88)</b>
15. Setters, operators, and tenders	4.2 (0.08)	3.1 (0.31)	<b>2.3 (1.46–3.63)</b>
16. Teachers	5.4 (0.09)	3.1 (0.29)	<b>2.4 (1.50–3.71)</b>
17. Protective service occupations	2.3 (0.06)	3.4 (0.44)	<b>2.5 (1.56–4.14)</b>
18. Entertainers, performers, sports, and related	1.4 (0.05)	3.5 (0.46)	<b>2.6 (1.61–4.24)</b>
19. Transportation and material moving workers	5.5 (0.09)	3.5 (0.25)	<b>2.6 (1.72–4.05)</b>
20. Cleaning and building service occupations	3.8 (0.08)	3.9 (0.34)	<b>2.9 (1.88–4.56)</b>
21. Office and administrative support workers	12.7 (0.13)	3.9 (0.21)	<b>2.9 (1.89–4.42)</b>
22. Health care technical and support occupations	4.6 (0.08)	4.0 (0.34)	<b>3.0 (1.94–4.66)</b>
23. Lawyers, judges, and legal support workers	1.1 (0.04)	4.2 (0.92)	<b>3.2 (1.70–5.89)</b>
24. Personal care and service workers	3.1 (0.06)	4.3 (0.36)	<b>3.2 (2.08–4.97)</b>
25. Engineering and related technicians	0.4 (0.03)	4.5 (1.36)	<b>3.3 (1.62–6.91)</b>
26. Life, physical, and social science technicians	0.2 (0.02)	4.6 (1.28)	<b>3.5 (1.78–6.81)</b>
27. Sales and related workers	10.2 (0.12)	4.7 (0.02)	<b>3.5 (2.34–5.38)</b>
28. Social scientists and related workers	0.3 (0.03)	4.8 (2.39)	<b>3.6 (1.22–10.42)</b>
29. Entertainment attendants and related workers	0.5 (0.03)	5.5 (0.90)	<b>4.2 (2.48–6.94)</b>
30. Food preparation and serving related occupations	5.5 (0.08)	5.7 (0.27)	<b>4.2 (2.79–6.46)</b>
31. Media and communication workers	1.0 (0.04)	6.8 (0.95)	<b>5.1 (3.10–8.28)</b>
Age			
18–29	25.3 (0.17)	5.5 (0.10)	<b>2.4 (2.08–2.71)</b>

Covariates	Study sample characteristics distribution weighted, % (SE)	Prevalence of suicidal ideation (SE)	Unadjusted relative risk 95% CI
30–49	46.2 (0.22)	3.2 (0.09)	<b>1.4 (1.19–1.57)</b>
50–64	28.5 (0.24)	2.3 (0.15)	1.0
Gender			
Male	52.4 (0.19)	3.1 (0.09)	1.0
Female	47.6 (0.19)	3.9 (0.10)	<b>1.3 (1.18–1.37)</b>
Race/Ethnicity			
Non-Hispanic white	66.5 (0.27)	3.7 (0.08)	1.0
Non-Hispanic black	11.1 (0.17)	3.0 (0.17)	<b>0.8 (0.71–0.90)</b>
Non-Hispanic other	7.1 (0.14)	3.6 (0.29)	1.0 (0.82–1.15)
Hispanic	15.3 (0.20)	2.9 (0.15)	<b>0.8 (0.69–0.86)</b>
Education			
<High school education	10.3 (0.13)	3.8 (0.19)	<b>1.3 (1.78–1.51)</b>
High school education	27.8 (0.19)	3.8 (0.12)	<b>1.3 (1.20–1.47)</b>
Some college	28.0 (0.19)	3.9 (0.13)	<b>1.4 (1.24–1.52)</b>
College education	33.9 (0.26)	2.8 (0.11)	1.0
Current employment			
Full-time	80.3 (0.15)	3.1 (0.07)	<b>0.6 (0.56–0.65)</b>
Part-time	19.7 (0.15)	5.1 (0.17)	1.0
Marital status			
Married	55.0 (0.23)	2.3 (0.08)	1.0
Widowed	1.5 (0.06)	3.6 (0.80)	<b>1.6 (1.02–2.48)</b>
Divorced/separated	13.7 (0.15)	4.7 (0.24)	<b>2.1 (1.83–2.33)</b>
Never married	29.8 (0.20)	5.2 (0.11)	<b>2.3 (2.15–2.51)</b>
Family income as % of federal poverty level			
<100%	9.2 (0.13)	5.5 (0.24)	<b>1.8 (1.63–1.98)</b>
100–199%	17.2 (0.17)	4.2 (0.15)	<b>1.4 (1.26–1.48)</b>
200%	73.4 (0.22)	3.1 (0.08)	1.0
Health insurance			
Private only	73.0 (0.20)	3.0 (0.07)	1.0
Medicaid	16.9 (0.17)	4.6 (0.16)	<b>1.5 (1.39–1.64)</b>
Uninsured	5.0 (0.08)	5.6 (0.32)	<b>1.9 (1.65–2.09)</b>
Other	5.1 (0.09)	4.4 (0.34)	<b>1.5 (1.25–1.71)</b>
Metropolitan statistical area			
Large metro	55.3 (0.32)	3.4 (0.10)	1.0
Small metro	29.9 (0.31)	3.7 (0.12)	1.1 (1.00–1.18)
Non-metro	14.8 (0.23)	3.4 (0.15)	1.0 (0.90–1.10)
Region			
Northeast	18.7 (0.21)	3.5 (0.15)	0.9 (0.84–1.06)
Midwest	22.1 (0.20)	3.7 (0.12)	1.0 (0.88–1.08)
South	36.1 (0.28)	3.2 (0.11)	<b>0.8 (0.76–0.94)</b>

Covariates	Study sample characteristics distribution weighted, % (SE)	Prevalence of suicidal ideation (SE)	Unadjusted relative risk 95% CI
West	23.1 (0.27)	3.8 (0.16)	1.0
Self-rated health			
Excellent	26.3 (0.18)	2.1 (0.10)	1.0
Very good	40.8 (0.19)	3.1 (0.10)	<b>1.5 (1.32–1.64)</b>
Good	25.9 (0.18)	4.4 (0.15)	<b>2.1 (1.85–2.32)</b>
Fair/poor	7.0 (0.11)	7.3 (0.36)	<b>3.4 (2.99–2.88)</b>
12-month emergency department visits			
0	74.4 (0.17)	2.8 (0.07)	1.0
1	13.8 (0.13)	5.1 (0.20)	<b>1.8 (1.66–1.98)</b>
2	8.0 (0.10)	5.0 (0.25)	<b>1.8 (1.60–2.00)</b>
3	2.6 (0.06)	10.3 (0.67)	<b>3.7 (3.20–4.20)</b>
12-Month Substance Use Disorders			
Yes	10.0 (0.11)	9.9 (0.29)	<b>3.6 (3.31–3.88)</b>
No	90.0 (0.11)	2.8 (0.07)	1.0
12-Month Major Depressive Episode			
Yes	6.1 (0.09)	25.2 (0.62)	<b>12.2 (11.39–13.09)</b>
No	93.4 (0.09)	2.1 (0.05)	1.0

SE: standard error; CI: confidence interval. Significant associations are in bold.



**Table 2**

Multivariable logistic regression model showing adjusted 12-month prevalence of suicidal ideation among currently employed persons aged 18–64 and associations between occupation and suicidal ideation: Annual average percentages and adjusted relative risks, 2008–2013 NSDUH (n = 184,300).

Characteristics	Adjusted prevalence of suicidal ideation (standard error)	Adjusted relative risk 95% confidence interval
Occupation		
1. Farming, fishing, and forestry occupations	1.6 (0.31)	1.0
2. Engineers, architects, and surveyors	2.7 (0.60)	1.7 (0.94–2.98)
3. Executive, administrative, and managerial occupations	2.9 (0.22)	<b>1.8 (1.22–2.75)</b>
4. Mathematical and computer scientists	2.9 (0.38)	<b>1.8 (1.16–2.91)</b>
5. Food preparation occupation (machine operators)	2.2 (0.45)	1.3 (0.77–2.36)
6. Physical scientists	3.3 (0.82)	<b>2.1 (1.12–3.82)</b>
7. Health diagnosing and treating practitioners	3.3 (0.39)	<b>2.1 (1.32–3.21)</b>
8. Financial related occupations	3.5 (0.56)	<b>2.2 (1.32–3.58)</b>
9. Counselors, social, and religious workers	2.9 (0.42)	<b>1.8 (1.11–2.87)</b>
10. Construction trades and extraction workers	2.9 (0.27)	<b>1.8 (1.21–2.70)</b>
11. Installation, maintenance, and repair workers	3.1 (0.33)	<b>1.9 (1.25–2.98)</b>
12. Production and operating workers	3.1 (0.58)	<b>2.0 (1.18–3.24)</b>
13. Management related occupations	3.5 (0.47)	<b>2.2 (1.38–3.50)</b>
14. Education, training, and library workers	3.3 (0.57)	<b>2.1 (1.25–3.43)</b>
15. Setters, operators, and tenders	3.2 (0.32)	<b>2.0 (1.29–3.01)</b>
16. Teachers	3.7 (0.33)	<b>2.3 (1.50–3.51)</b>
17. Protective service occupations	3.8 (0.48)	<b>2.4 (1.50–3.74)</b>
18. Entertainers, performers, sports, and related	2.9 (0.38)	<b>1.8 (1.15–2.88)</b>
19. Transportation and material moving workers	3.7 (0.26)	<b>2.3 (1.57–3.44)</b>
20. Cleaning and building service occupations	3.6 (0.31)	<b>2.3 (1.51–3.40)</b>
21. Office and administrative support workers	3.7 (0.20)	<b>2.3 (1.56–3.45)</b>
22. Health care technical and support occupations	3.5 (0.28)	<b>2.2 (1.47–3.30)</b>
23. Lawyers, judges, and legal support workers	4.8 (0.90)	<b>3.0 (1.74–5.23)</b>
24. Personal care and service workers	3.5 (0.28)	<b>2.2 (1.44–3.25)</b>
25. Engineering and related technicians	4.2 (1.16)	<b>2.6 (1.37–5.08)</b>
26. Life, physical, and social science technicians	3.8 (1.01)	<b>2.4 (1.31–8.71)</b>
27. Sales and related workers	4.1 (0.19)	<b>2.6 (1.75–3.78)</b>
28. Social scientists and related workers	5.4 (2.39)	<b>3.4 (1.31–8.71)</b>
29. Entertainment attendants and related workers	4.2 (0.69)	<b>2.6 (1.60–4.29)</b>
30. Food preparation and serving related occupations	3.6 (0.21)	<b>2.2 (1.50–3.28)</b>
31. Media and communication workers	5.8 (0.82)	<b>3.6 (2.26–5.71)</b>
Age		
18–29	4.2 (0.12)	<b>1.5 (1.30–1.71)</b>
30–49	3.4 (0.10)	<b>1.2 (1.04–1.34)</b>
50–64	2.8 (0.17)	1.0
Gender		

Characteristics	Adjusted prevalence of suicidal ideation (standard error)	Adjusted relative risk 95% confidence interval
Male	3.5 (0.09)	1.0
Female	3.6 (0.10)	1.0 (0.90–1.06)
Race/ethnicity		
Non-Hispanic white	3.7 (0.08)	1.0
Non-Hispanic black	2.9 (0.17)	<b>0.8 (0.68–0.87)</b>
Non-Hispanic other	4.1 (0.32)	1.1 (0.94–1.30)
Hispanic	2.8 (0.14)	<b>0.7 (0.66–0.82)</b>
Education		
<High school education	3.5 (0.18)	1.0 (0.95–1.19)
High school education	3.7 (0.12)	1.1 (0.99–1.24)
Some college	3.5 (0.12)	1.0 (0.93–1.15)
College education	3.4 (0.14)	1.0
Current employment		
Full-time	3.4 (0.08)	<b>0.9 (0.82–0.97)</b>
Part-time	3.8 (0.14)	1.0
Marital status		
Married	3.0 (0.10)	1.0
Widowed	3.6 (0.81)	1.2 (0.78–1.91)
Divorced/separated	4.1 (0.21)	<b>1.4 (1.22–1.56)</b>
Never married	3.9 (0.12)	<b>1.3 (1.19–1.43)</b>
Family income as % of federal poverty level		
<100%	3.8 (0.18)	1.0
100–199%	3.5 (0.13)	1.1 (0.97–1.15)
200%	3.5 (0.08)	1.0 (0.93–1.10)
Health insurance		
Private only	3.4 (0.08)	1.0
Medicaid	3.6 (0.14)	1.1 (0.97–1.15)
Uninsured	3.7 (0.22)	1.1 (0.94–1.20)
Other	3.7 (0.27)	1.1 (0.92–1.25)
Region		
Northeast	3.6 (0.14)	1.0 (0.86–1.08)
Midwest	3.5 (0.11)	0.9 (0.86–1.05)
South	3.3 (0.11)	<b>0.9 (0.78–0.98)</b>
West	3.7 (0.15)	1.0
Self-rated health		
Excellent	2.7 (0.12)	1.0
Very good	3.3 (0.10)	<b>1.2 (1.12–1.37)</b>
Good	4.0 (0.13)	<b>1.5 (1.34–1.68)</b>
Fair/poor	5.1 (0.26)	<b>1.9 (1.69–2.20)</b>
12-month emergency department visits		
0	3.1 (0.07)	1.0

Characteristics	Adjusted prevalence of suicidal ideation (standard error)	Adjusted relative risk 95% confidence interval
1	4.3 (0.16)	<b>1.4 (1.25–1.48)</b>
2	4.0 (0.20)	<b>1.3 (1.15–1.43)</b>
3	5.3 (0.40)	<b>1.7 (1.45–1.97)</b>
12-month substance use disorders	6.0 (0.21)	<b>2.0 (1.81–2.12)</b>
Yes		
No	3.1 (0.07)	1.0
12-month major depressive episode		
Yes	18.8 (0.58)	<b>8.7 (8.10–9.45)</b>
No	2.2 (0.05)	1.0

Significant associations are in bold. Among the 184,300 sampled adults who were currently employed, 9000 had suicidal ideation in the past year, and 1300 attempted suicide in the past year.

**Table 3**

Bivariate multinomial logistic regression model showing unadjusted 12-month prevalence of having suicidal ideation only and having both suicidal ideation and suicide attempt among currently employed persons aged 18–64: Annual average percentages and unadjusted relative risks, 2008–2013 NSDUH (n = 184,300).

Characteristics	Having suicidal ideation only		Having both suicidal ideation and suicide attempt	
	Prevalence (SE)	Unadjusted relative risk 95% CI	Prevalence (SE)	Unadjusted relative risk 95% CI
Occupation				
1. Farming, fishing, and forestry occupations	1.1 (0.25)	1.0	0.28 (0.12)	1.0
2. Engineers, architects, and surveyors	1.7 (0.39)	1.6 (0.84–3.09)	<i>a</i>	<i>a</i>
3. Executive, administrative, managerial occupations	2.1 (0.18)	<b>2.0 (1.21–3.26)</b>	0.20 (0.05)	0.7 (0.27–1.85)
4. Mathematical and computer scientists	2.2 (0.31)	<b>2.1 (1.20–3.57)</b>	0.18 (0.06)	0.6 (0.22–1.82)
5. Food preparation occupation (machine operators)	1.8 (0.49)	1.7 (0.84–3.50)	0.57 (0.23)	2.0 (0.66–6.13)
6. Physical scientists	2.2 (0.66)	2.1 (0.98–4.45)	<i>a</i>	<i>a</i>
7. Health diagnosing and treating practitioners	2.4 (0.32)	<b>2.3 (1.35–3.93)</b>	0.04 (0.02)	<b>0.1 (0.04–0.45)</b>
8. Financial related occupations	2.4 (0.42)	<b>2.3 (1.25–4.06)</b>	0.20 (0.10)	0.7 (0.21–2.42)
9. Counselors, social, and religious workers	2.5 (0.38)	<b>2.3 (1.33–4.07)</b>	0.14 (0.05)	0.5 (0.16–1.48)
10. Construction trades and extraction workers	2.5 (0.25)	<b>2.3 (1.43–3.85)</b>	0.26 (0.05)	0.9 (0.37–2.25)
11. Installation, maintenance, and repair workers	2.5 (0.29)	<b>2.3 (1.39–3.94)</b>	0.23 (0.08)	0.8 (0.27–2.35)
12. Production and operating workers	2.6 (0.54)	<b>2.5 (1.32–4.63)</b>	0.31 (0.12)	1.1 (0.37–3.26)
13. Management related occupations	2.8 (0.41)	<b>2.6 (1.52–4.54)</b>	0.22 (0.08)	0.8 (0.27–2.27)
14. Education, training, and library workers	2.6 (0.47)	<b>2.5 (1.36–4.40)</b>	<i>a</i>	<i>a</i>
15. Setters, operators, and tenders	2.7 (0.30)	<b>2.6 (1.54–4.33)</b>	0.35 (0.08)	1.2 (0.50–3.08)
16. Teachers	3.0 (0.29)	<b>2.8 (1.70–4.72)</b>	0.16 (0.05)	0.6 (0.21–1.54)
17. Protective service occupations	3.2 (0.43)	<b>3.0 (1.75–5.23)</b>	0.19 (0.06)	0.7 (0.25–1.79)
18. Entertainers, performers, sports, and related	3.1 (0.43)	<b>3.0 (1.72–5.11)</b>	0.36 (0.14)	1.3 (0.42–3.79)
19. Transportation and material moving workers	2.9 (0.23)	<b>2.8 (1.76–10.04)</b>	0.60 (0.12)	2.1 (0.87–5.13)
20. Cleaning and building service occupations	3.2 (0.30)	<b>3.0 (1.82–4.96)</b>	0.73 (0.16)	<b>2.6 (1.03–6.42)</b>
21. Office and administrative support workers	3.4 (0.19)	<b>3.2 (1.99–5.23)</b>	0.46 (0.08)	1.6 (0.67–3.89)
22. Health care technical and support occupations	3.6 (0.31)	<b>3.4 (2.06–5.58)</b>	0.44 (0.10)	1.5 (0.61–3.89)
23. Lawyers, judges, and legal support workers	4.2 (0.92)	<b>3.9 (2.09–7.47)</b>	<i>a</i>	<i>a</i>
24. Personal care and service workers	3.7 (0.34)	<b>3.5 (2.14–5.76)</b>	0.59 (0.14)	2.1 (0.82–5.24)
25. Engineering and related technicians	4.1 (1.32)	<b>3.8 (1.74–8.51)</b>	<i>a</i>	<i>a</i>
26. Life, physical, and social science technicians	3.8 (1.17)	<b>3.6 (1.70–7.73)</b>	<i>a</i>	<i>a</i>
27. Sales and related workers	4.1 (0.20)	<b>3.8 (2.39–6.19)</b>	0.65 (0.08)	<b>2.3 (1.01–5.30)</b>
28. Social scientists and related workers	4.7 (2.39)	<b>4.5 (1.48–13.52)</b>	<i>a</i>	<i>a</i>
29. Entertainment attendants and related workers	5.0 (0.89)	<b>4.8 (2.67–8.53)</b>	0.51 (0.15)	1.8 (0.67–4.88)
30. Food preparation and serving related occupations	4.9 (0.26)	<b>4.6 (2.87–7.49)</b>	0.78 (0.08)	<b>2.8 (1.22–6.26)</b>
31. Media and communication workers	6.6 (0.95)	<b>6.2 (3.59–10.79)</b>	0.20 (0.09)	0.7 (0.21–2.38)

SE: standard error; CI: confidence interval. Significant associations are in bold. Among the 184,300 sampled adults who were currently employed, 9000 had suicidal ideation in the past year, and 1300 attempted suicide in the past year.

<sup>a</sup>Estimates were suppressed due to low precision.

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**Table 4**

Multivariable multinomial logistic regression model showing adjusted 12-month prevalence of having suicidal ideation only and having both suicidal ideation and suicide attempt among currently employed persons aged 18–64: annual average percentages and adjusted relative risks, 2008–2013 NSDUH (n = 184,300).

Characteristics	Having suicidal ideation only		Having both suicidal ideation and suicide attempt	
	Adjusted prevalence (SE)	Adjusted relative risk 95% CI	Adjusted prevalence (SE)	Adjusted relative risk 95% CI
Occupation				
1. Farming, fishing, and forestry occupations	1.3 (0.30)	1.0	0.27 (0.11)	1.0
2. Engineers, architects, and surveyors	2.5 (0.57)	<b>1.9 (1.02–3.59)</b>	<i>a</i>	<i>a</i>
3. Executive, administrative, managerial occupations	2.6 (0.20)	<b>1.9 (1.20–3.12)</b>	0.39 (0.10)	1.5 (0.58–3.70)
4. Mathematical and computer scientists	2.6 (0.36)	<b>2.0 (1.16–3.31)</b>	0.37 (0.13)	1.4 (0.48–4.05)
5. Food preparation occupation (machine operators)	1.7 (0.43)	1.3 (0.66–2.53)	0.42 (0.16)	1.6 (0.53–4.61)
6. Physical scientists	2.8 (0.78)	<b>2.1 (1.04–4.28)</b>	<i>a</i>	<i>a</i>
7. Health diagnosing and treating practitioners	3.1 (0.38)	<b>2.3 (1.40–3.88)</b>	0.11 (0.05)	0.4 (0.13–1.29)
8. Financial related occupations	3.1 (0.54)	<b>2.3 (1.31–4.11)</b>	0.43 (0.18)	1.6 (0.51–5.02)
9. Counselors, social, and religious workers	2.6 (0.40)	<b>2.0 (1.15–3.41)</b>	0.22 (0.09)	0.8 (0.28–2.45)
10. Construction trades and extraction workers	2.7 (0.27)	<b>2.0 (1.28–3.27)</b>	0.22 (0.05)	0.8 (0.35–1.97)
11. Installation, maintenance, and repair workers	2.8 (0.32)	<b>2.2 (1.30–3.54)</b>	0.27 (0.09)	1.0 (0.37–2.82)
12. Production and operating workers	2.8 (0.56)	<b>2.1 (1.14–3.90)</b>	0.37 (0.14)	1.4 (0.49–4.02)
13. Management related occupations	3.1 (0.45)	<b>2.4 (1.41–4.02)</b>	0.38 (0.13)	1.4 (0.51–4.01)
14. Education, training, and library workers	2.8 (0.50)	<b>2.1 (1.18–3.72)</b>	<i>a</i>	<i>a</i>
15. Setters, operators, and tenders	2.8 (0.31)	<b>2.1 (1.31–3.51)</b>	0.34 (0.08)	1.3 (0.52–3.08)
16. Teachers	3.3 (0.32)	<b>2.5 (1.53–4.12)</b>	0.33 (0.10)	1.2 (0.45–3.30)
17. Protective service occupations	3.6 (0.46)	<b>2.7 (1.60–4.56)</b>	0.23 (0.07)	0.9 (0.32–2.25)
18. Entertainers, performers, sports, and related	2.6 (0.36)	<b>2.0 (1.16–3.34)</b>	0.32 (0.12)	1.2 (0.40–3.53)
19. Transportation and material moving workers	3.2 (0.24)	<b>2.3 (1.51–3.79)</b>	0.56 (0.11)	2.1 (0.89–4.91)
20. Cleaning and building service occupations	3.1 (0.30)	<b>2.4 (1.46–3.81)</b>	0.47 (0.10)	1.8 (0.75–4.21)
21. Office and administrative support workers	3.2 (0.18)	<b>2.5 (1.54–3.92)</b>	0.48 (0.09)	1.8 (0.77–4.22)
22. Health care technical and support occupations	3.2 (0.27)	<b>2.4 (1.49–3.87)</b>	0.36 (0.08)	1.4 (0.55–3.34)
23. Lawyers, judges, and legal support workers	4.6 (0.87)	<b>3.5 (1.94–6.19)</b>	<i>a</i>	<i>a</i>



Characteristics	Having suicidal ideation only		Having both suicidal ideation and suicide attempt	
	Adjusted prevalence (SE)	Adjusted relative risk 95% CI	Adjusted prevalence (SE)	Adjusted relative risk 95% CI
24. Personal care and service workers	3.1 (0.26)	<b>2.3 (1.45–3.74)</b>	0.41 (0.10)	1.5 (0.60–3.92)
25. Engineering and related technicians	3.7 (1.09)	<b>2.8 (1.36–5.84)</b>	<i>a</i>	<i>a</i>
26. Life, physical, and social science technicians	3.1 (0.94)	<b>2.3 (1.10–4.87)</b>	<i>a</i>	<i>a</i>
27. Sales and related workers	3.6 (0.18)	<b>2.7 (1.72–4.28)</b>	0.52 (0.06)	1.9 (0.86–4.34)
28. Social scientists and related workers	5.1 (2.29)	<b>3.9 (1.43–10.42)</b>	<i>a</i>	<i>a</i>
29. Entertainment attendants and related workers	3.9 (0.69)	<b>2.9 (1.66–5.16)</b>	0.36 (0.11)	1.3 (0.51–3.55)
30. Food preparation and serving related occupations	3.2 (0.21)	<b>2.4 (1.54–3.88)</b>	0.36 (0.04)	1.3 (0.61–2.98)
31. Media and communication workers	5.5 (0.79)	<b>4.1 (2.44–7.05)</b>	0.23 (0.11)	0.8 (0.26–2.83)

SE: standard error; CI: confidence interval. Significant associations are in bold. The multinomial logistic regression model included the following variables: occupation, age, gender, race/ethnicity, education, current employment, marital status, family income, health insurance, region, self-rated health, 12-month emergency department visits, 12-month substance use disorders, and 12-month major depressive episode. Among the 184,300 sampled adults who were currently employed, 9000 had suicidal ideation in the past year, and 1300 attempted suicide in the past year.

<sup>a</sup>Estimates were suppressed due to low precision.