

There are several factors that influence health and life expectancy, including where we work and the types of work we do. Death certificates collect information about the industry and occupation from those who have died. In this context, this brief refers to the work that was performed during most of a person's working life, focusing on Vermonters between the ages of 16 and 64. These data are collected through interviews with family members and people who knew the decedent, and then are classified into industry and occupation major groupings using national standardized methodology.<sup>1,2</sup> Significant differences are noted with an asterisk.

## Types of workplaces at disproportionate suicide risk

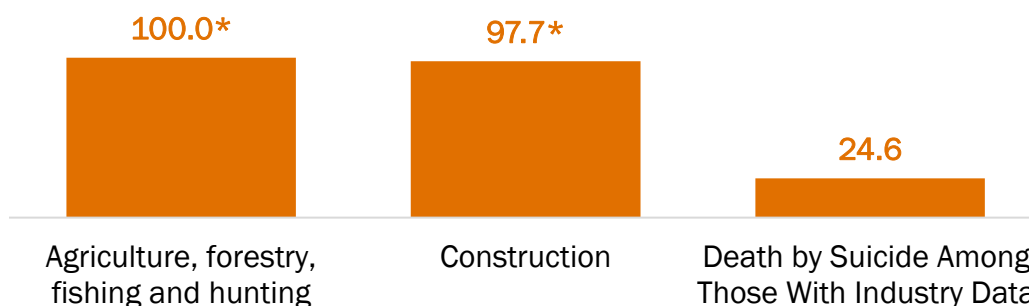
Industry refers to the type of place a person works. For example, an elementary school teacher works in the education industry. Nationally, industries at higher risk for suicide include mining, quarrying and oil and gas extraction; construction; agriculture, forestry, fishing, and hunting; transportation; and other services like automotive repair.<sup>3</sup> In Vermont, the suicide rate among those with classifiable industry data was 24.6 per 100,000 working Vermonters. Two of the 20 major industry groups had significantly higher rates: agriculture, forestry, fishing, and hunting; and construction, which had rates of 100.0 and 97.7 per 100,000 Vermonters employed in those industries, respectively.\* There are several occupation groups with rates higher than the overall suicide rate; however, these rates were not statistically significant. There are also 2 industry groups with significantly lower rates compared to the overall suicide rate: educational services; and healthcare and social assistance which had rates of 8.4 and 9.3 per 100,000 Vermonters, respectively.\* During 2019 and 2020, 87% of suicide deaths had classifiable industries.

### KEY POINTS

- Vermonters working in agriculture, forestry, fishing and hunting or construction industries have a suicide rate that is 3 times higher than the general population.
- Vermonters working in farming, fishing, and forestry occupations have a suicide death rate 6 times higher than the general population.
- Vermonters working in construction occupations have a suicide death rate 4 times higher than the general population.

### Suicide Death Rates by Industry, 2019-2020

Rates per 100,000 Vermonters Employed by Industry Group



Source: Vermont Vital Statistics, 2019- 2020; Occupation Employment and Wage Statistics, 2019- 2020.

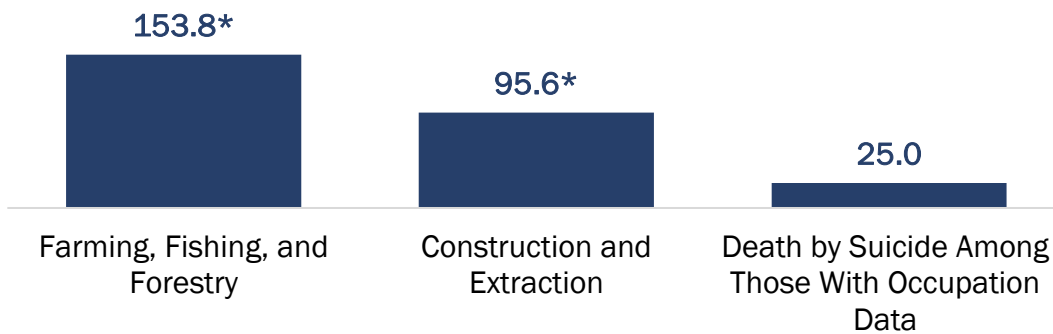
# Industry and Occupation of Suicide Deaths

## Types of jobs at disproportionate suicide risk

Occupation refers to what a person does at their job. For example, an elementary school teacher has an occupation of “teacher”. Nationally, occupations at higher risk for suicide include construction and extraction jobs; installation, maintenance, and repair; arts, design, entertainment, sports, and media; transportation and material moving; protective services; and health care support.<sup>3</sup> In Vermont, the suicide rate among those with classifiable occupation data was 25.0 per 100,000 working-aged Vermonters. Two of the 22 major occupation groups had significantly higher rates: farming, fishing and forestry; and construction and extraction, which had rates of 153.8 and 95.6 per 100,000 Vermonters employed in those occupations, respectively.\* There are also several occupation groups with rates higher than the overall suicide rate; however, these rates were not statistically significant. There are 3 occupation groups with significantly lower rates compared to the overall suicide rate: educational instruction and library; healthcare support; and office and administrative support occupations, which had rates of 8.3, 0.0, and 5.5 per 100,000 Vermonters, respectively.\* During 2019 and 2020, 88% of suicide deaths had classifiable occupations. For a complete list of suicide deaths by industry and occupation, [click here](#).

### Suicide Death Rates by Occupation, 2019-2020

Rates per 100,000 Vermonters Employed by Occupation Group



Source: Vermont Vital Statistics, 2019- 2020, Quarterly Census of Employment and Wages 2019- 2020.

## Key Takeaways

Understanding industries and occupations at increased risk for suicide may help inform workplaces that would benefit from prevention strategies. In 2019 and 2020, Twenty-seven percent of suicide deaths were among individuals employed in an industry or occupation that had a rate of suicide significantly higher than the state. Suicide prevention strategies include promoting wellness and help-seeking, training staff to recognize and respond to suicide risk, reducing access to lethal means, and providing opportunities for social connectedness.

**Workplaces can help reduce suicide by promoting wellness and help-seeking, training staff to recognize suicide risk, and increasing social connectedness**

## Industry and Occupation of Suicide Deaths

The construction and agriculture, forestry, fishing and hunting industry also overlap with other known risk factors for suicide, which include being male or having lower educational attainment. In Vermont, males represent the majority of suicide deaths (80%), and also represent the majority employed in the construction and agriculture, forestry, fishing, and hunting industry (88% and 72%, respectively). In addition, having a high school education or less represent a majority of suicide deaths (62%), and also represent more than half of those employed in construction and the agriculture, forestry, fishing, and hunting industry (51% and 56%).

### Limitations

There are a few limitations with these data. First, all individuals with complete industry and occupation information are assumed to have been employed at the time of death. Second, rates in some industry and occupation groups may be overestimated, because the denominators do not include people who are self-employed, or that don't qualify for unemployment insurance. For example, in 2019 approximately 20% of people working in the construction industry were self-employed, and 40% of those working in farming, fishing and forestry industry were self-employed.<sup>7</sup>

#### References:

1. [North American Industry Classification System \(NAICS\) Manual, 2017](#)
2. [Standard Occupational Classification Manual, 2018](#)
3. Peterson, C., Sussell, A., Li, J., Schumacher, P. K., Yeoman, K., & Stone, D. M. (2020). Suicide rates by industry and occupation – National Violent Death Reporting System, 32 states, 2016. *Morbidity and Mortality Weekly Report*, 69(3), 57–62.
4. Occupational Employment and Wage Statistics, 2019- 2020
5. Quarterly Census of Employment and Wages, 2019- 2020
6. Vermont Vital Statistics, 2019- 2020
7. Vermont Department of Labor, Economic and Labor Market Information, Employment Projections and Employment Wage Programs, 2018

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