

Revisiting Workplace Violence in Montana

An Analysis of 2023 Workers' Compensation Data

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Last year, the Montana Department of Labor & Industry (DLI) published research on workplace violence using data from workers' compensation claims to monitor the prevalence of violent acts against Montana workers dating back to the early 2000s. The analysis found workplace violence accounted for a small percentage of all workplace injuries which increased slightly in recent years. It also found the majority of injuries from workplace violence were reported by workers in a few industries (education, healthcare and social services, and public administration) and, more specifically, from several distinct occupations (teachers and paraeducators, nurses, group home workers, police officers, and correctional staff). While the findings suggest most injuries from workplace violence did not result in a workers' compensation benefit payout, and therefore that most injuries did not cause a worker substantial physical harm, the report concluded that Montana workplaces should take reasonable steps to protect their employees from violence.

To extend the analysis with 2023 data, researchers enhanced their approach to analyzing the available workers' compensation data. The findings of this new report include:

- Workplace violence contributed to at least 1,043 injuries, or 4.7% of all injury reports received by DLI in 2023. Neither of these numbers increased compared to 2022.

- The Education, Healthcare and Social Service, Administrative and Support Service, and Public Administration industries reported 90% of the injuries from violence.
- The occupations of teacher, paraeducator, nurse, group home employee, and police officer reported a majority of the workplace violence incidents.
- About 90% of injuries from violence were caused by students or patients, with far fewer injuries resulting from criminal assault or violence between employees.
- As of March 2023, 2.8% of injuries from workplace violence have associated benefit payouts, although this percentage is far from finalized.

The goal of this report is to provide quantitative data to guide the ongoing discussion on the issue of workplace violence, to help policymakers and impacted workers develop new ways of preventing and responding to workplace violence, and to continue making Montana safer for the benefit of all who live and work here.

ANALYSIS DESIGN

While the 2023 workplace violence analysis kept many of the elements of the 2001-2022 workplace violence analysis, the data collection and review methods were changed to improve the accuracy of the results. As with the prior analysis, researchers focused on the injury report's accident description, where the worker or a representative described the circumstances surrounding the injury. However, researchers reviewed



all injury reports from 2019 to 2023 instead of creating a subset of accident descriptions which contained keywords indicating violent behavior. In reviewing the description, researchers judged whether the associated injury could be considered as primarily caused by an act of workplace violence. To reduce the risk of individual judgment impacting the results, researchers developed a set of rules that needed to be satisfied for injuries to be considered caused by workplace violence, which included the following criteria:

1. The injury had to be caused by another person, and not caused by either environmental factors or self-inflicted by the worker.
2. The reported injury needed to be physical. While the OSHA definition of workplace violence includes situations such as harassment or intimidation which could lead to various mental or emotional trauma, the workers' compensation system does not recognize these conditions as compensable.
3. The person causing the injury had to intend to harm the worker and was not behaving in an accidental or unintentional capacity. However, the person causing the injury did not have to possess lasting intention of harming the worker, meaning that momentary episodes of violent behavior were included.

Once all injuries had been reviewed and their statuses were determined, the dataset was analyzed using Tableau. The other details available on the injury report, including the industry and occupation data and associated claim payout data, were used for determining trends

surrounding workplace violence. Rates of injury were determined using publicly available data on employment from the US Bureau of Labor Statistics. These rates were then subjected to t-testing to determine which differences were statistically significant.

FINDINGS

In 2023, 1,043 workplace injuries reported to DLI were determined to have been caused by acts of violence. **Figure 1** displays the total number of injuries from workplace violence from 2019 to 2023. This view shows injuries from workplace violence increased following a substantial drop in the year 2020, although they still have yet to exceed numbers observed in 2019. Prior research on workplace injuries has determined 2020 as an outlier, with the impact of the COVID-19 pandemic and associated economic disruption impacting workers' compensation data.

The number of injuries from workplace violence during the 2019-2023 period closely models the overall number of injuries, but some changes in the percentage of injuries caused by workplace violence do exist. **Figure 2** visualizes this percentage and includes a 95% confidence interval, allowing researchers to draw conclusions about whether differences are significant. As with the numbers in **Figure 1**, the rate of injury from workplace violence fell in 2020 and then rebounded in following years, with 2022 and 2023 slightly exceeding the percentage of injuries from workplace violence observed in 2019. It also indicates that 2020's percentage of injuries from workplace violence was significantly lower than the rate observed before or after the height of the COVID-19



FIGURE 1
Injuries from Workplace Violence

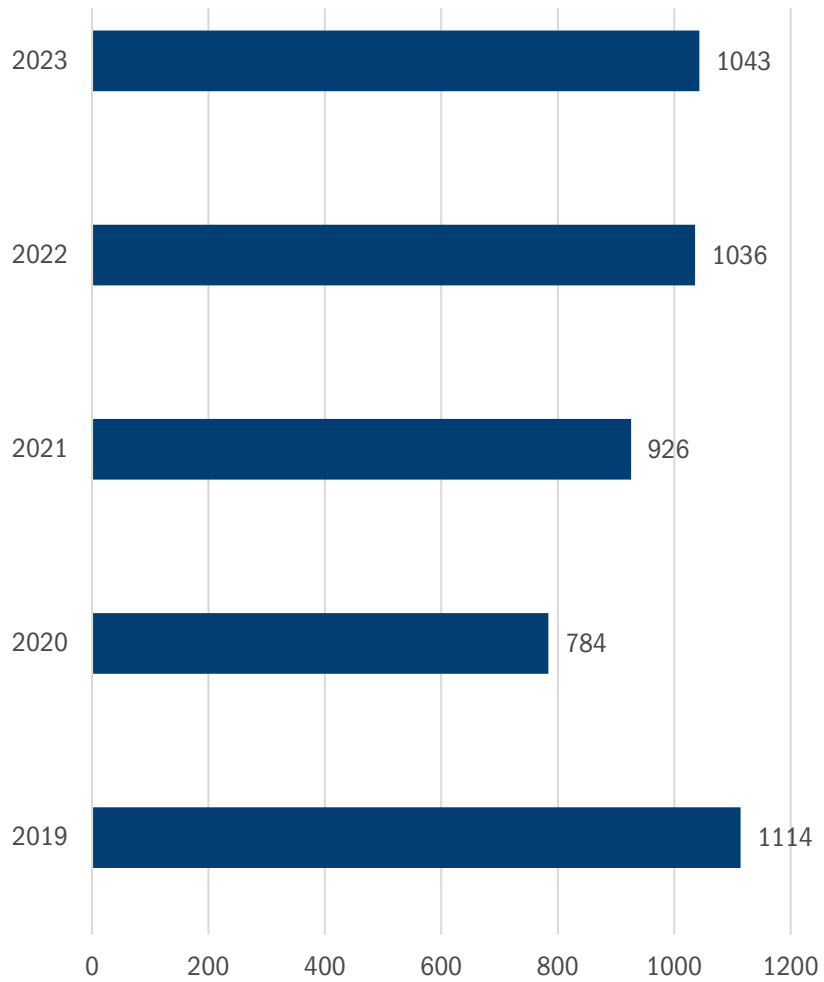
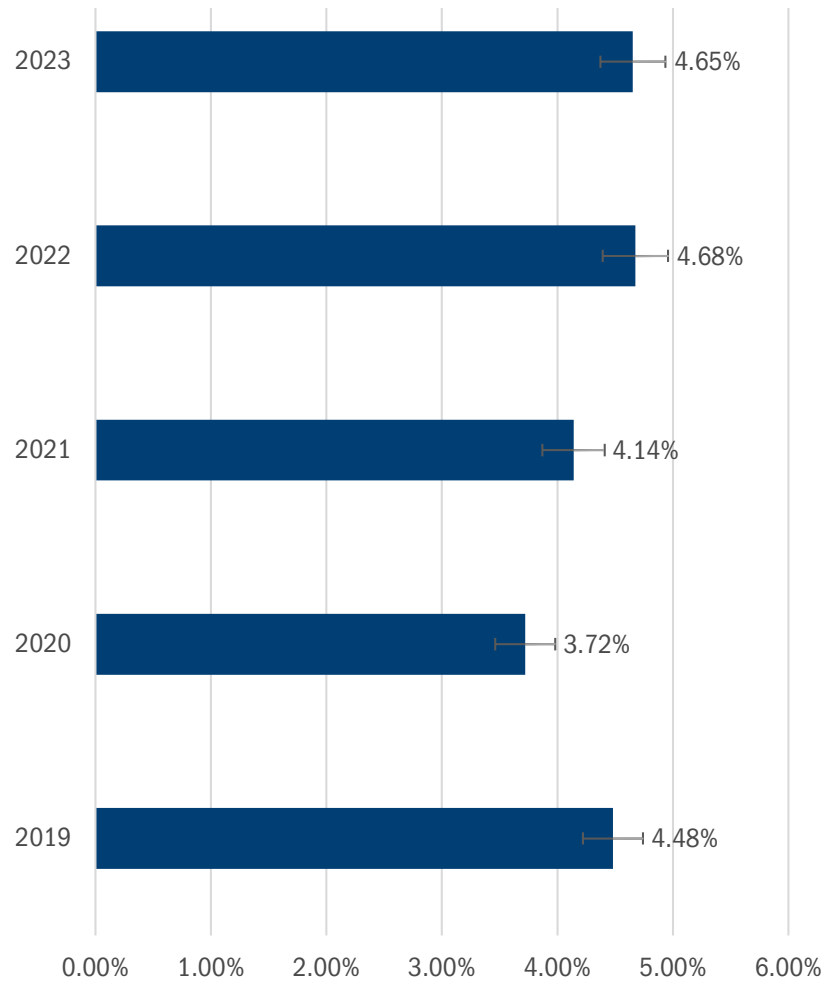


FIGURE 2
Percentage of Injuries from Workplace Violence



pandemic. However, the increase observed from 2019 to 2023 is too small to be determined significant, so while researchers can conclude that workplace violence has increased at a significant level since 2020, the percentage of workplace injuries caused by acts of violence is not significantly higher than where it was in 2019.

While violence can occur in any workplace, the data suggests that certain industries experience the majority of these incidents. **Figure 3** separates the 2023 data according to the North American Industry Classification System (NAICS) codes found on the injury report. It indicates that half of the workplace violence injuries were reported in the education sector alone, and that a few other industries (healthcare and social services, administrative and support services including waste management and remediation, and public administration) accounted for much of the remainder. By contrast, the 16 other industry sectors experienced under 10% of injuries from violence, with 6 industries reporting no injuries from violence.

Figures 4 and **5** provide further context to the industry breakdown along with some statistical significance. **Figure 4** provides the number of injuries from workplace violence per 10,000 full-time equivalent (FTE) employees. This calculation illustrates the prevalence of workplace violence within each industry and reduces the role of industry size on the number of injuries reported. This figure indicates workplace violence impacts a very small percentage of every industry's workforce, with only 1% of workers in education experiencing industry from workplace

FIGURE 3
Injuries from Workplace Violence by Industry

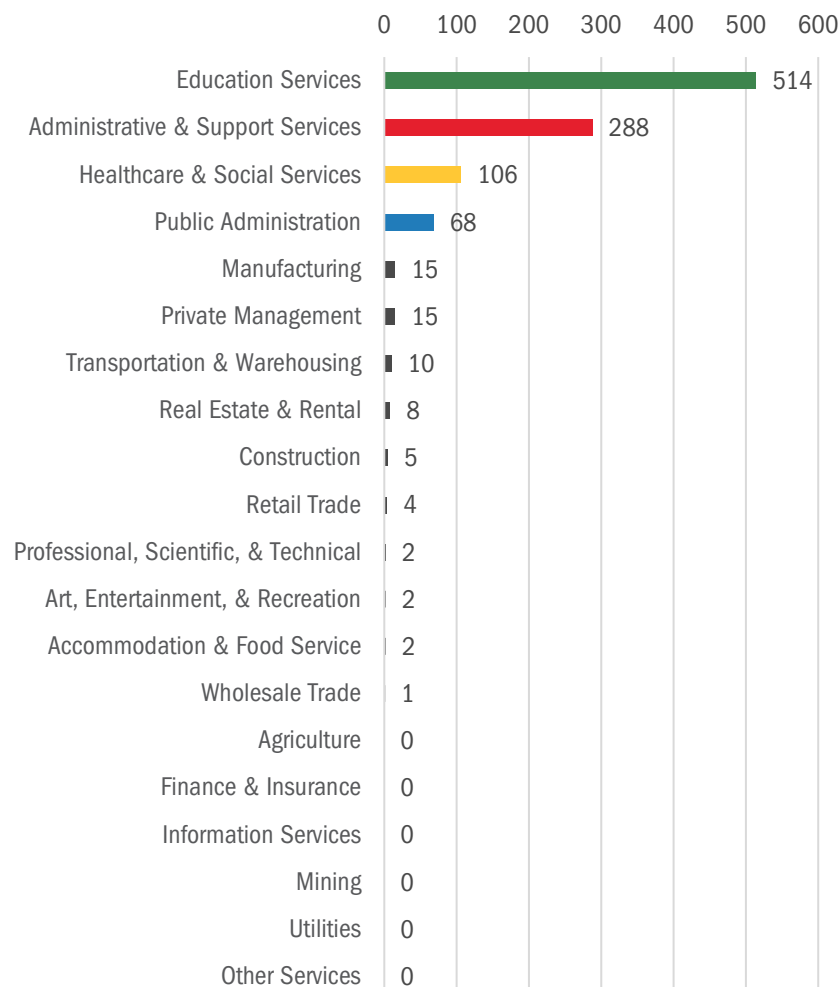


FIGURE 4

Injuries from Violence per 10,000 FTE Employees

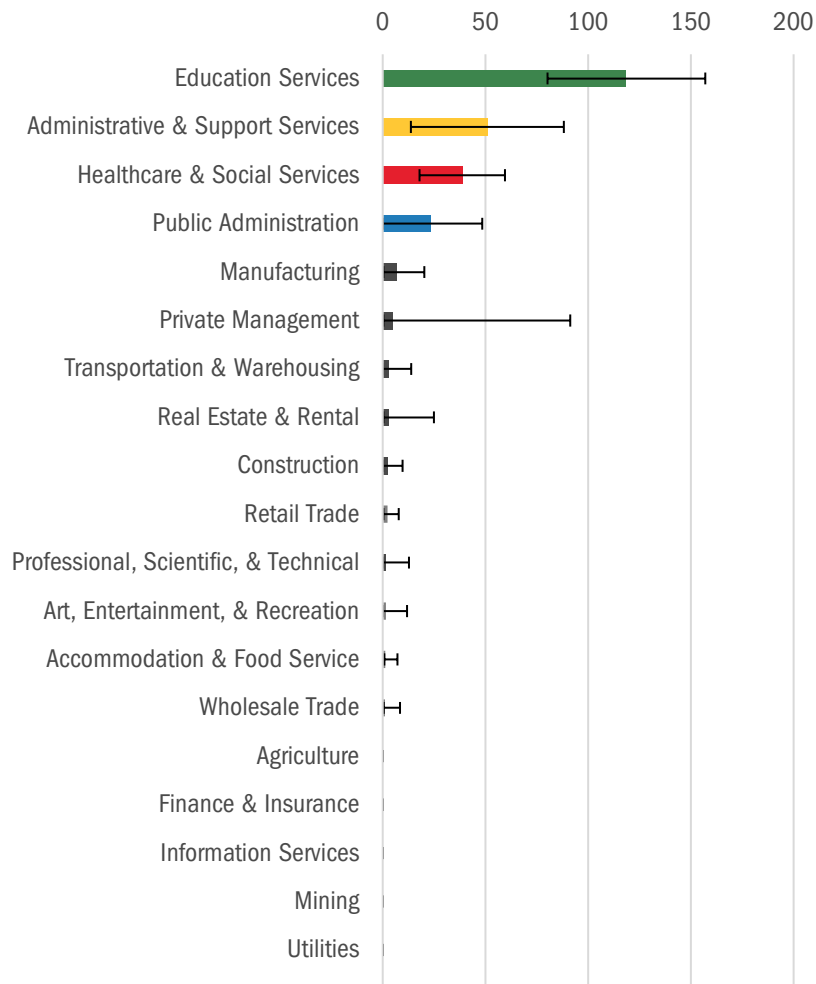
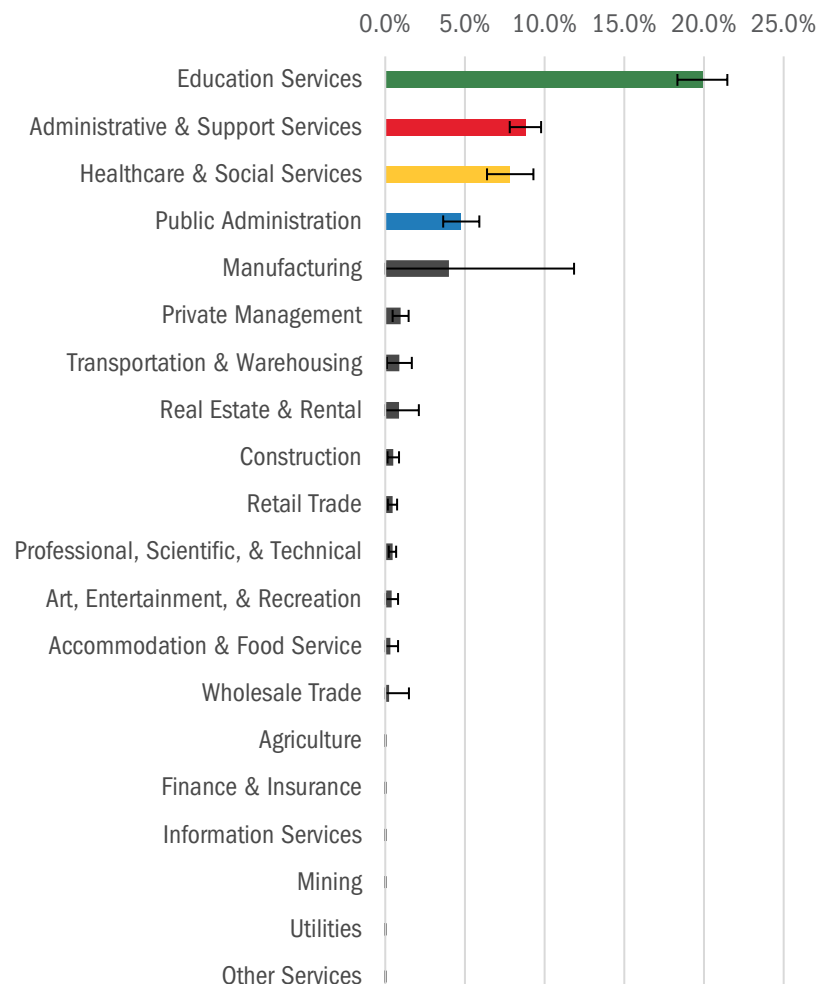


FIGURE 5

Percent of All Injuries Caused by Workplace Violence

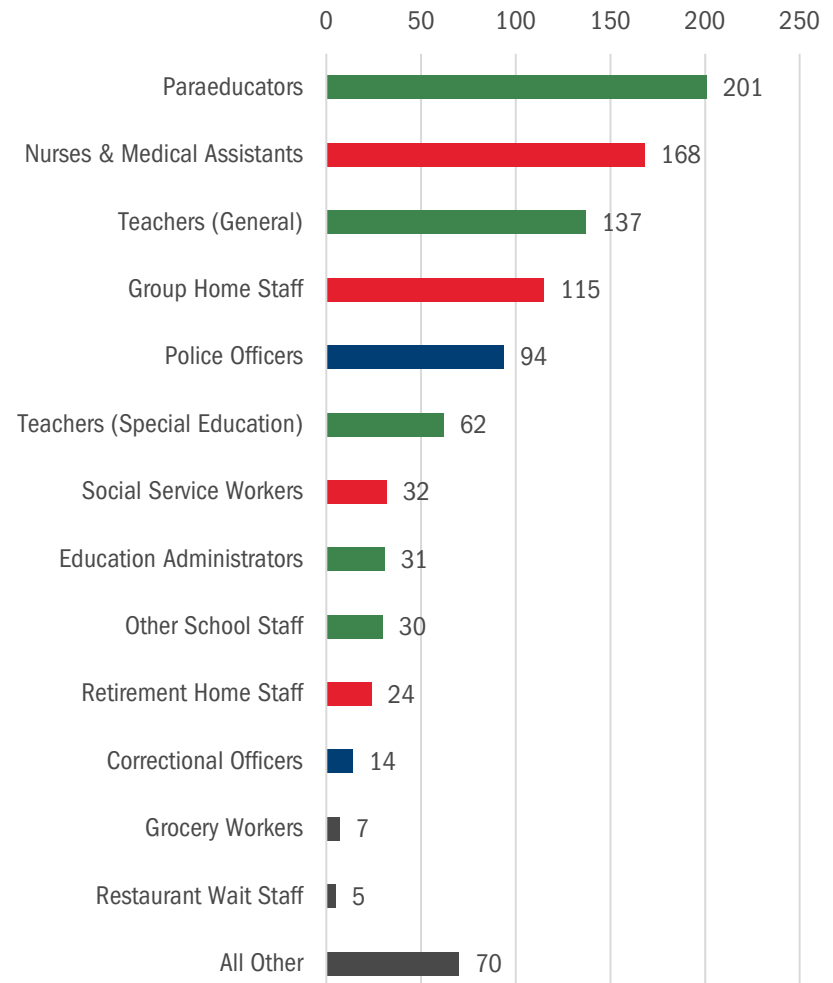


violence and all other industries reporting less than 1%. Furthermore, the wide variance in the size of each industry produces wide confidence intervals, so few industries can be considered significantly different from others. However, these intervals do suggest education has a significantly higher percentage of its workforce impacted by violence when compared against most other industries.

Figure 5 divides the number of injuries from workplace violence by the total number of injuries reported in each industry, providing an understanding of how great of a risk workplace violence poses to worker safety compared to other occupational hazards. This view isolates education as the industry with the greatest proportion of injuries resulting from workplace violence at 20%, significantly higher than any other industry. The other three industries which reported higher-than-average numbers of injuries from violence also had significantly higher proportions of their injuries from violence when compared against all industries except management of private businesses. However, private business managers reported a very small number of injuries in 2023, leading to a wide error range. It should also be noted that the public administration industry saw significantly fewer injuries from violence compared to the other higher-than-average industries.

Within each industry group, specific occupations tended to report the majority of the workplace violence claims. **Figure 6** displays the primary occupations identified across all industries. This figure indicates that several occupations- including teachers and paraeducators, nurses and

FIGURE 6
Injuries from Workplace Violence by Occupation



medical assistants, group home staff, police officers, and social workers-reported most of the injuries from workplace violence.

While the industries and occupations identified have a clear difference in their level of risk for workplace violence, the question of why violence occurs in these settings is much more difficult to understand. A likely theory is that risk from violence is influenced by the kinds of people workers interact with in the course of their employment. In other words, certain occupations work closely with individuals in a capacity which increases the likelihood of violence between the individual and the worker. **Figure 7** provides some insight into the individual identified in the accident description as having caused the injury. About 85% of the reports indicate a customer who the worker cared for in some capacity injured the worker in an act of physical violence. This “care” group is divided into minors, including students, children outside of formal education settings, and youths in remedial environments, and adult “customers in care”, a group including medical patients as well as long-term care patients in medical or mental-health facilities. Far fewer injuries were reported as being caused by individuals acting in a criminal capacity (including both suspects of crimes and the incarcerated), and only a small fraction of crimes involved non-care customers (restaurant or bar patrons, shoppers, etc.) or internal employees (i.e. coworkers).

Finally, cross-analyzing workers’ compensation indemnity benefit payouts provides a limited understanding of the severity of claims. **Figure 8** provides a count of the claims with associated lost-time benefit

FIGURE 7
Individual Initiating Workplace Violence

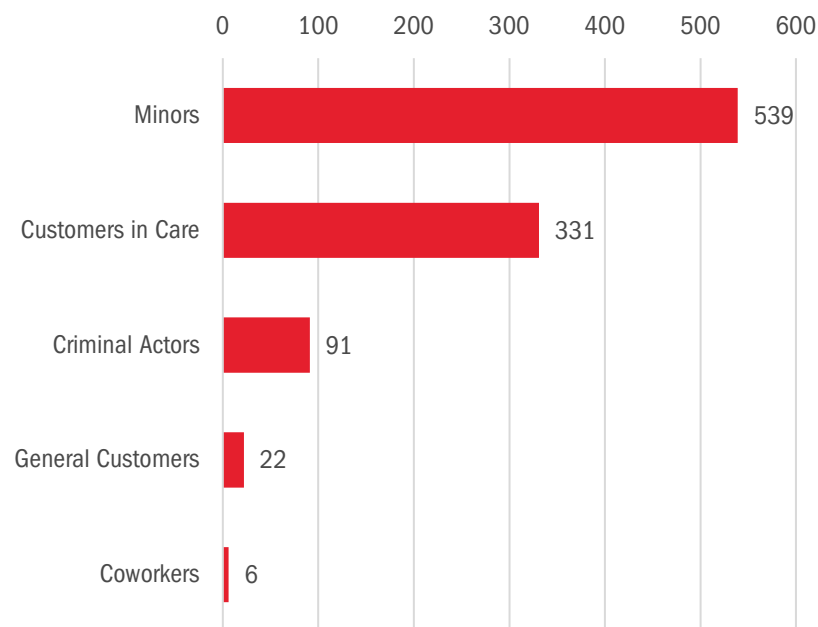
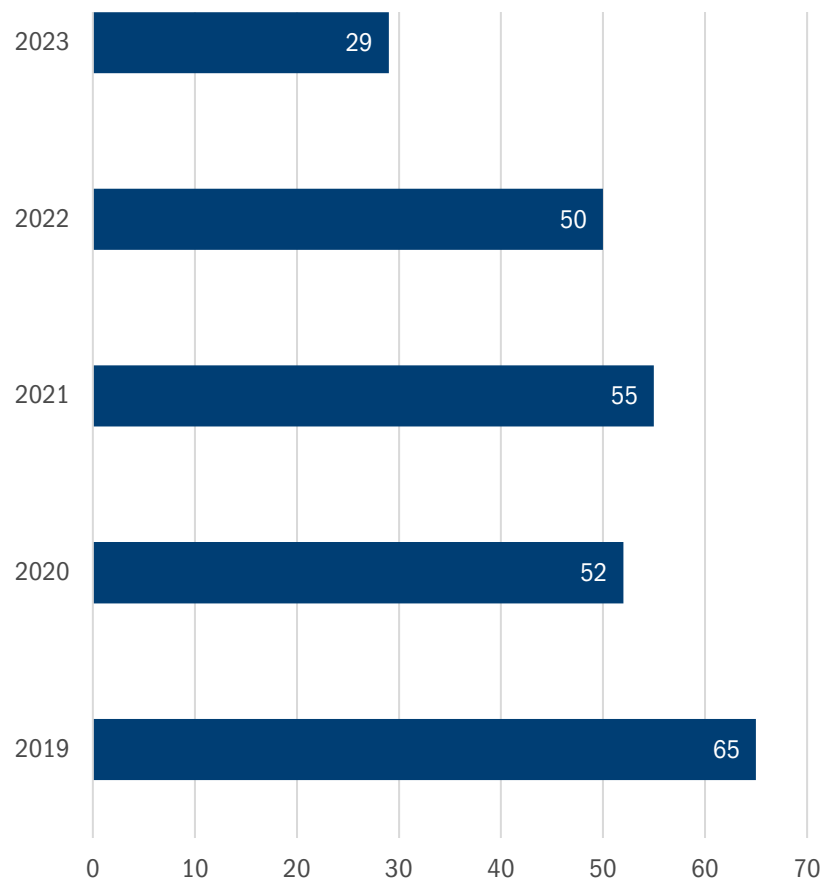


FIGURE 8
Count and Percent of Workplace Violence Injury Reports with Indemnity Benefit Payout



payouts from recent years. As of March 1st, 2024, only 29 claims (2.8% of all workplace violence claims) have associated payouts. As with prior years, this indicates the majority of claims do not lead to the payout of lost time benefits, which means workers did not seek compensation for missed time from work as a result of their injury and suggests that many injuries from workplace violence do not cause the worker substantial physical harm. However, these findings should be reviewed cautiously, as data on medical payouts or recovery leave outside of workers' compensation (such as paid medical leave) are not included in this data. Additionally, the numbers recorded in this figure are in a constant state of change as claims are processed and appealed, so the number of claims with associated payouts will increase as time goes on.

CONCLUSION

The addition of 2023 results to DLI's workplace violence reporting indicate few significant changes compared to prior years. Workplace violence remains an issue throughout the state, especially for educators, medical professionals, social workers, and law enforcement. Within some of these occupations, violent behavior from students, patients, and others represents a substantial occupational hazard 3-10 times greater when compared to other professions. Even though many of these injuries are not deemed serious enough to result in benefit payout, such instances of violence can still harm workers and disrupt workplaces. DLI continues to encourage employers to pursue reasonable policies to protect workers and reduce the prevalence of violence in Montana workplaces.

