

Firearms and Police Safety

Executive Summary

Firearms-related injuries and deaths pose a serious risk for law enforcement officers (LEOs) in the line of duty. Research has explored how a variety of firearm policies (such as stand-your-ground, permitting, etc.) affect homicide rates. These same policies can positively or negatively impact police officer risks from firearm injuries and deaths.

Highlights

- Most fatalities for LEOs in the line of duty are from firearms.
- The Missouri firearm assault rate on LEOs is higher than the national average.
- Repeal of permit-to-purchase (PTP) in Missouri may have increased homicides, and slightly increased risk of firearm assaults for LEOs.
- Higher numbers of firearms correlate with increased officer homicides based on findings across the United States.

Limitations

- Data sources rely on police reporting or media reports and may be missing injuries and deaths associated with firearms.
- Data on number of LEOs (for identifying rates of risk for line of duty work) and police attributes are limited.

Firearms and Police Injuries on Duty

Firearms-related deaths and injuries in the line of duty are a serious risk for law enforcement officers. According to the FBI's Law Enforcement Officers Killed and Assaulted database, in 2019, firearms contributed to 44 of 48 officer homicides.¹ In Missouri, one study estimated that the average firearm assault rate on officers was 0.57/1000 officers, higher than the national average of 0.47/1000.²

Several factors may contribute to firearm violence against officers, including type of crimes responded to and overall gun ownership. A study conducted by the U.S. Marshals Service using National Incident-Based Reporting System (NIBRS), a national repository that collects crime data from law enforcement agencies, found that officers responding to firearm-related crimes face a 16 to 32 times greater risk of firearm injury. Similarly, responding to violent crime may increase risk of firearm injuries by 4 to 5 times.³ While previous reports indicated that younger and female suspects are more likely to resist arrest, this study found that older and male suspects were more associated with firearm violence during resistance against officers. Offender alcohol intoxication also increases risk of firearm violence. Most weapons used against officers are privately owned guns (not the officer's service weapon used against them).⁴ Analysis of gun ownership and homicides of LEOs between 1996 and 2010 indicates that after controlling for rates of violent crime and other factors, a 10% increase in gun ownership correlated with 10 additional officer homicides over 15 years.⁴

Firearm Legislation and Firearm Injuries

A variety of policies regulate various aspects of firearm ownership; some policies are more effective at reducing injury and death, but identifying links between policies and outcomes can be challenging. A review of 130 studies exploring effects of various firearms policies found that background check requirements correlate with lower homicide rates in general.⁵ Effectiveness of these policies may depend on specific implementation, such as the type database used for the background checks.⁵ In contrast, “Stand your ground” laws and the removal of the PTP law (which required handgun purchasers to have a license verifying a background check) in Missouri are associated with increases in firearm homicides.⁵⁻⁷ Restrictions on purchases of particular types of firearms did not show a clear association with firearm homicides.⁵

While LEOs may be affected by firearm violence off-duty (including domestic violence, suicides, and accidents), they have a unique risk from firearm violence due to responding to crimes in progress and working on investigations. In particular, three-strike laws, by increasing consequences for offender arrest, may increase incentive for offenders to violently resist. One study found three-strikes laws increased risk of fatal assaults for LEOs by 33%.⁸ The same study indicated no clear relationship for right-to-carry legislation on officer risk, and a statistically insignificant increased risk of non-fatal handgun assaults on LEOs from Missouri’s repeal of PTP legislation.⁸

Identifying impacts of firearm legislation can be challenging. While multiple databases have been developed to help track crime as well as officer injuries, these databases are limited either by police department participation (e.g., in one study, NIBRS represented 34% of police departments³) or by media reports (e.g., Gun Violence Archive). To identify the impact of particular legislation, studies comparing impacts before and after policy implementation (such as before or after PTP in Missouri) generally provide more precise results than comparing different localities.⁵

References

1. Officers Feloniously Killed. *FBI* <https://ucr.fbi.gov/leoka/2019/topic-pages/officers-feloniously-killed>.
2. Sierra-Arévalo, M. & Nix, J. Gun victimization in the line of duty. *Criminol. Public Policy* **19**, 1041–1066 (2020).
3. Bierie, D. M., Detar, P. J. & Craun, S. W. Firearm Violence Directed at Police. *Crime Delinquency* **62**, 501–524 (2013).
4. Swedler, D. I., Simmons, M. M., Dominici, F. & Hemenway, D. Firearm Prevalence and Homicides of Law Enforcement Officers in the United States. *Am. J. Public Health* **105**, 2042–2048 (2015).
5. Santaella-Tenorio, J., Cerdá, M., Villaveces, A. & Galea, S. What Do We Know About the Association Between Firearm Legislation and Firearm-Related Injuries? *Epidemiol. Rev.* **38**, 140–157 (2016).
6. Webster, D., Crifasi, C. K. & Vernick, J. S. Effects of the repeal of Missouri’s handgun purchaser licensing law on homicides. *J. Urban Health Bull. N. Y. Acad. Med.* **91**, 293–302 (2014).
7. McCourt, A. D. *et al.* Purchaser Licensing, Point-of-Sale Background Check Laws, and Firearm Homicide and Suicide in 4 US States, 1985–2017. *Am. J. Public Health* **110**, 1546–1552 (2020).
8. Crifasi, C. K., Pollack, K. M. & Webster, D. W. Effects of state-level policy changes on homicide and nonfatal shootings of law enforcement officers. *Inj. Prev.* **22**, 274–278 (2016).