

Effects of Stand-Your-Ground Laws on Violent Crime



Summary: Evidence that stand-your-ground laws may increase homicide rates is moderate, and evidence that such laws may increase firearm homicides is limited. Evidence for the effect of stand-your-ground laws on other types of violent crime is inconclusive.

We identified three studies that examined the effects of stand-your-ground laws on violent crime and met our inclusion criteria.

Cheng and Hoekstra (2013) exploited state and time variation in the passage of stand-your-ground laws using data from 2000 to 2010 to estimate the laws' effects on homicide rates. The authors defined stand-your-ground laws using a binary variable equal to one for polices that "remove the duty to retreat in some place outside the home" (Cheng and Hoekstra, 2013, p. 825). Controlling for state and year fixed effects, the study explored several model specifications, including additional controls for region-by-year fixed effects, time-varying covariates that account for changes in policing and incarceration rates, and state-specific linear trends. Using negative binomial regression models, they found stand-your-ground laws to be associated with significant

Key Findings



Two or more studies found significant effects in the same direction, and contradictory evidence was not found in other studies with equivalent or stronger methods. Read more about [how we determined the strength of gun policy analysis research](#).

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increases in homicide rates of 6 to 11 percent, a result that is relatively robust across model specifications. However, given the relatively short time frame studied and large set of controls, the ratio of estimated parameters to observations is less than one to six in specifications that include time-varying covariates, indicating that the model may have been overfit, and thus its estimates and their confidence intervals (CIs) may be unreliable indicators of the true effect of the law.

Covering a similar period (1999–2010) with state-level data, Webster, Crifasi, and Vernick

Experts Weigh In

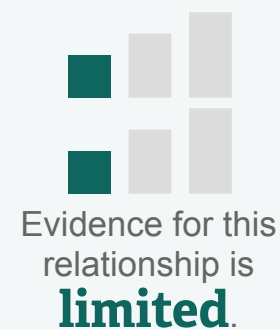
Compare expert opinions on how stand-your-ground laws may affect violent crime outcomes in Florida and the U.S. as a whole. »

(2014) analyzed the effects of stand-your-ground laws on age-adjusted homicide rates. Using generalized least-squares regression models,

their estimates showed an uncertain association between stand-your-ground laws and homicides rates, firearm homicide rates, and nonfirearm homicide rates. The statistical model used to arrive at these results used a large number of estimated parameters relative to observations (a ratio of about one to eight), meaning the model may have been overfit, and thus its estimates of the laws' effects may not generalize to other implementations of a stand-your-ground law.

Humphreys, Gasparrini, and Wiebe (2017) used segmented quasi-Poisson regression analysis to examine changes between 1999 and 2014 in Florida's monthly homicide rate before and after the introduction of Florida's 2005 stand-your-ground law. They compared these changes in four of the 27 states without stand-your-ground laws at the beginning of the period (New Jersey, New York, Ohio, and Virginia). The paper reported that these were the only states with

Stand-your-ground laws may **increase** firearm homicides.



At least one study meeting our inclusion criteria and not otherwise compromised by noted methodological weaknesses reported a significant effect of the policy on the outcome, and no studies with equivalent or stronger methods provided contradictory evidence.

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Stand-your-ground laws have **uncertain** effects on other violent crime.



Studies with comparable methodological strengths identified inconsistent evidence for the policy's effect on an outcome, or a single study found only uncertain or suggestive effects.

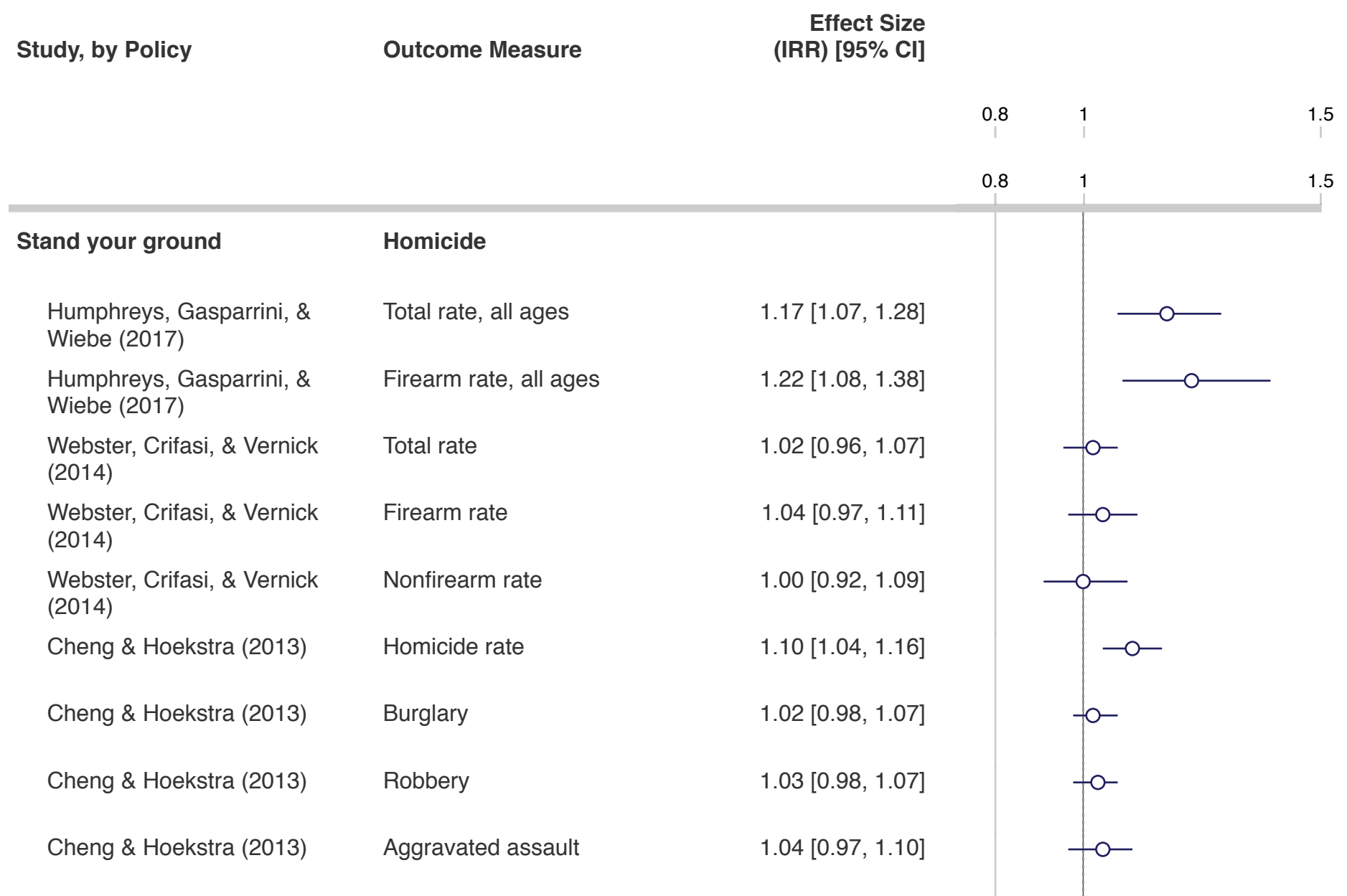
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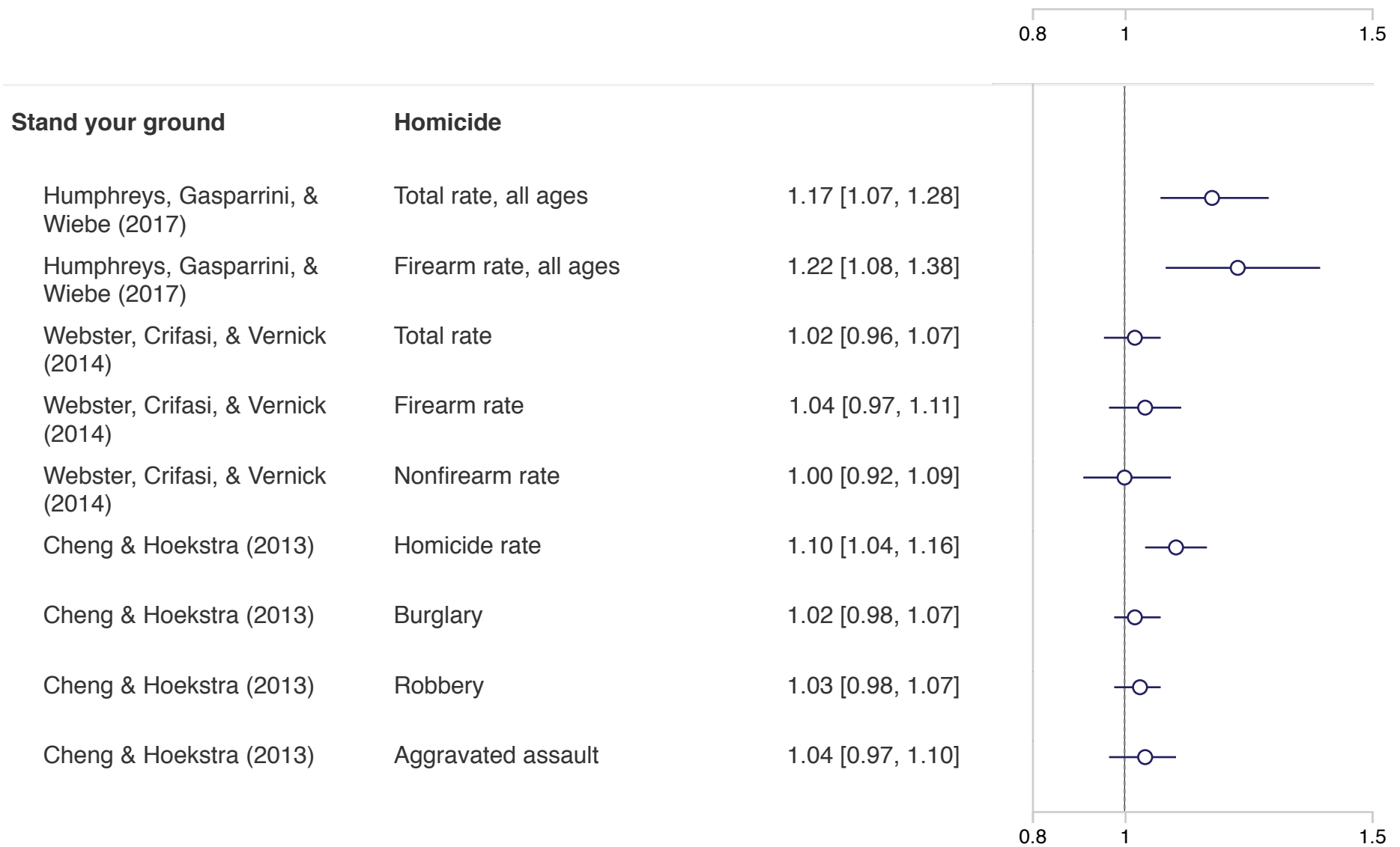
reliable monthly homicide data. The authors found that the stand-your-ground law increased both total homicides and firearm homicides. Their estimates show that Florida experienced a significant 24-percent increase in total homicides and 32-percent increase in firearm homicides following enactment of the stand-your-ground law in 2005 (see the figure below). The comparison states experienced a statistically insignificant 6-percent increase in total homicides and 8-percent increase in firearm homicides after 2005. The authors' model included no covariates to adjust for other sources of differences between Florida and control states in homicide rates over time, meaning that factors other than the stand-your-ground law cannot be ruled out as the cause of the observed differences between Florida and the control states.

The figure below displays the incidence rate ratios (IRRs) and CIs associated with the stand-your-ground policies examined in these studies.

Incidence Rate Ratios Associated with the Effect of Stand-Your-Ground Laws on Violent Crime

[HOW TO READ THIS CHART](#) 





NOTE: IRR values marked with empty circles indicate that we identified concerns with the study's methodology, and these concerns are described in the text above. Filled circles indicate that we identified no significant methodological concerns.

Conclusions

Homicides and other violent crime. We identified three qualifying studies that estimated the effects of stand-your-ground laws on total homicides or other violent crimes. Cheng and Hoekstra (2013) found that these laws significantly increase homicide rates, but they have uncertain effects on robbery, aggravated assault, and burglary rates. Webster, Crifasi, and Vernick (2014) found that these laws have an uncertain effect on the total homicide rate. Finally, Humphreys, Gasparrini, and Wiebe (2017) found significant effects consistent with the law increasing total homicides in Florida after its passage. These studies draw on two distinct data sources: FBI crime-rate data from the Uniform Crime Reports system and the Center for Disease Control and Prevention's Fatal Injury Reports.

Based on these findings, we conclude that there is *moderate evidence that stand-your-ground laws may increase homicide rates but inconclusive evidence for the effect of stand-your-ground laws on other types of violent crime.*

Firearm homicides. We identified two qualifying studies that estimated the effects of stand-your-ground laws on firearm homicide rates. Webster, Crifasi, and Vernick (2014) found that

these laws have uncertain effects on firearm homicides. Humphreys, Gasparrini, and Wiebe (2017) found a significant effect suggesting that after the law's introduction, it increased firearm homicides in Florida. Based on these findings, we conclude that there is *limited evidence that stand-your-ground laws may increase firearm homicides*.

STAND-YOUR-GROUND LAWS

VIOLENT CRIME

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Lea Xenakis is a policy analyst at the RAND Corporation. Her approach to research includes mixed methods, combining qualitative and quantitative methods. Xenakis has participated in over 15 program evaluations and systematic reviews. Her interests are in program development, capacity building,...

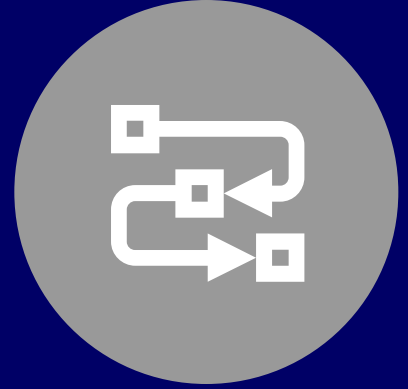
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