

# Effects of Bans on the Sale of Assault Weapons and High-Capacity Magazines on Violent Crime



**Summary:** Evidence for the effect of assault weapon bans on total homicides and firearm homicides is inconclusive.

**I**n its review of available scientific evidence, the National Research Council (2004) described two studies that examined the effects of the 1994 federal assault weapon ban (Koper and Roth, 2001, 2002). The studies found no short-term (within two years) effect of the ban on gun violence outcomes but a temporary increase in prices of assault weapons in both primary and legal secondary markets. In their review, Hahn et al. (2005) found insufficient evidence for determining the effectiveness of bans on specific firearms or ammunition on violent crime.

We identified two studies that evaluated federal and state assault weapon bans and met our criteria. Gius (2014) analyzed state-level data from 1980 through 2009 and controlled for the 1994–2004 federal assault weapon ban

## Key Findings

Assault weapon bans have

**uncertain**

effects on *total* homicides and *firearm* homicides.



Evidence for this relationship is

**inconclusive.**

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. Read more about [how we determined the strength of gun policy analysis research](#).

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and for the existence of state assault weapon bans. The analysis of the federal assault weapon ban does not meet our criteria for inclusion: The author included an indicator for years prior to and after the ban as a control, but there was no comparison (control) group. The author found a suggestive effect consistent with state assault weapon bans decreasing firearm-related homicides (see the figure below). However, the model did not account for serial correlation in panel data, which can result in large biases in standard errors (Aneja, Donohue, Zhang, 2014).

Lott (2010) examined the effect of assault weapon bans on violent crime. Detailed results that include coefficients and test statistics were available only for the outcome of homicide (Lott, 2010, Table A6.3). This model indicated an uncertain effect of assault weapon bans on homicide rates, but it had an unfavorable ratio of estimated parameters to observations (less than one to ten), meaning the model may have been overfit, and thus its effect estimates and significance levels may be inaccurate.

## Experts Weigh In

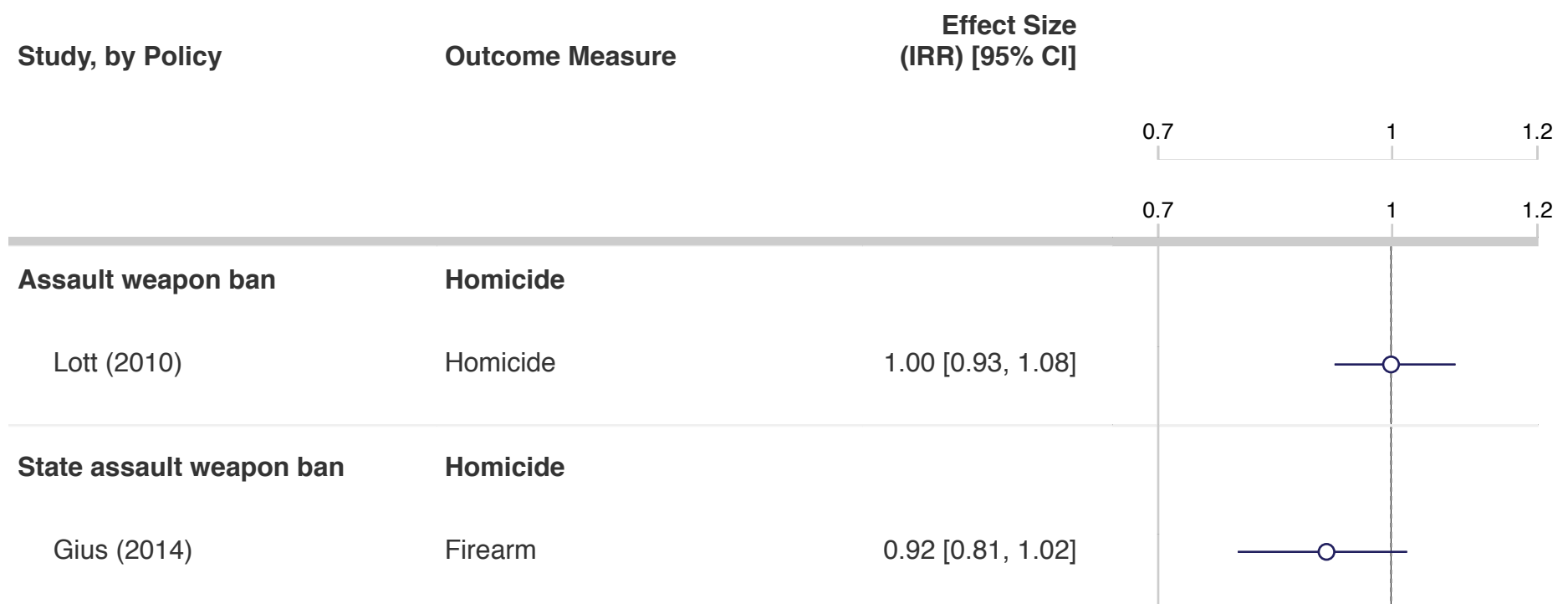
Compare expert opinions on how that ban assault weapons and capacity magazines may affect violent crime outcomes in state and the U.S. as a whole. »

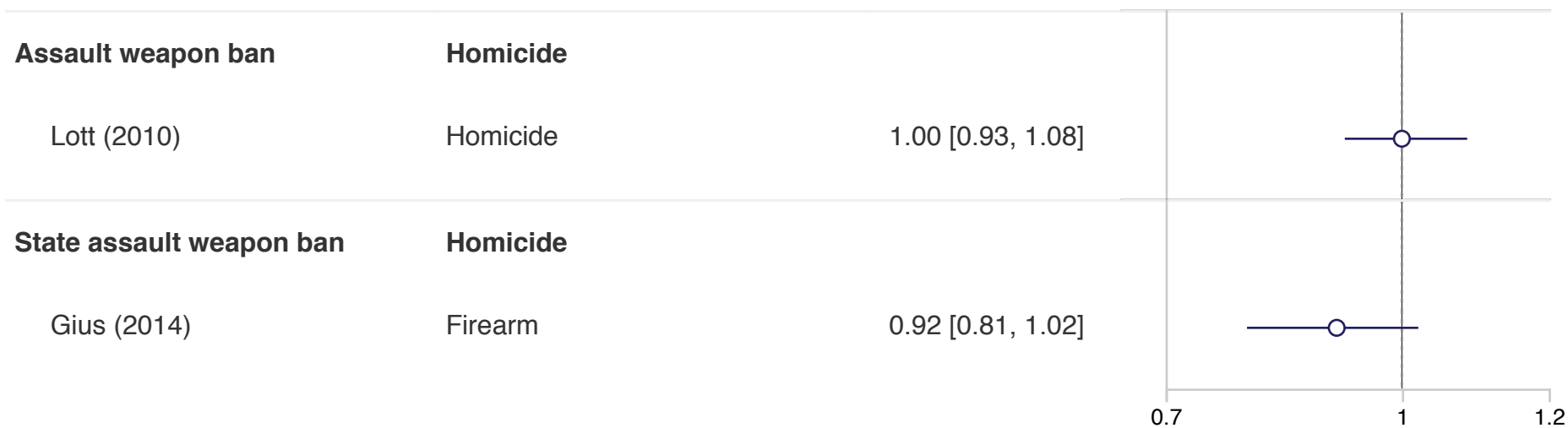
The figure below displays the incidence rate ratios (IRRs) and confidence intervals (CIs) associated with the assault weapon ban policies examined in these studies. We exclude the estimate of the

federal assault weapon ban from Gius (2014) because the estimate does not meet our criteria for inclusion.

## Incidence Rate Ratios Associated with the Effect of Assault Weapon Bans 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

We identified two qualifying studies that estimated the effects of assault weapon bans on different violent crime outcomes. One found uncertain effects of such bans on total homicide rates (Lott, 2010); the other found a suggestive effect consistent with assault weapon bans decreasing firearm homicides (Gius, 2014). Considering the relative strengths of these studies, available evidence is *inconclusive for the effect of assault weapon bans on total homicides and firearm homicides*.

**BANS ON THE SALE OF ASSAULT WEAPONS AND HIGH-CAPACITY MAGAZINES**

**VIOLENT CRIME**

## References

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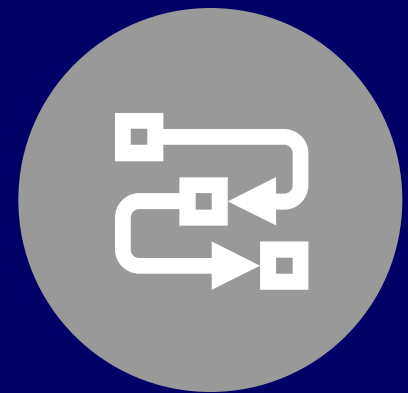
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