

What are the most effective policies in reducing firearm violence?

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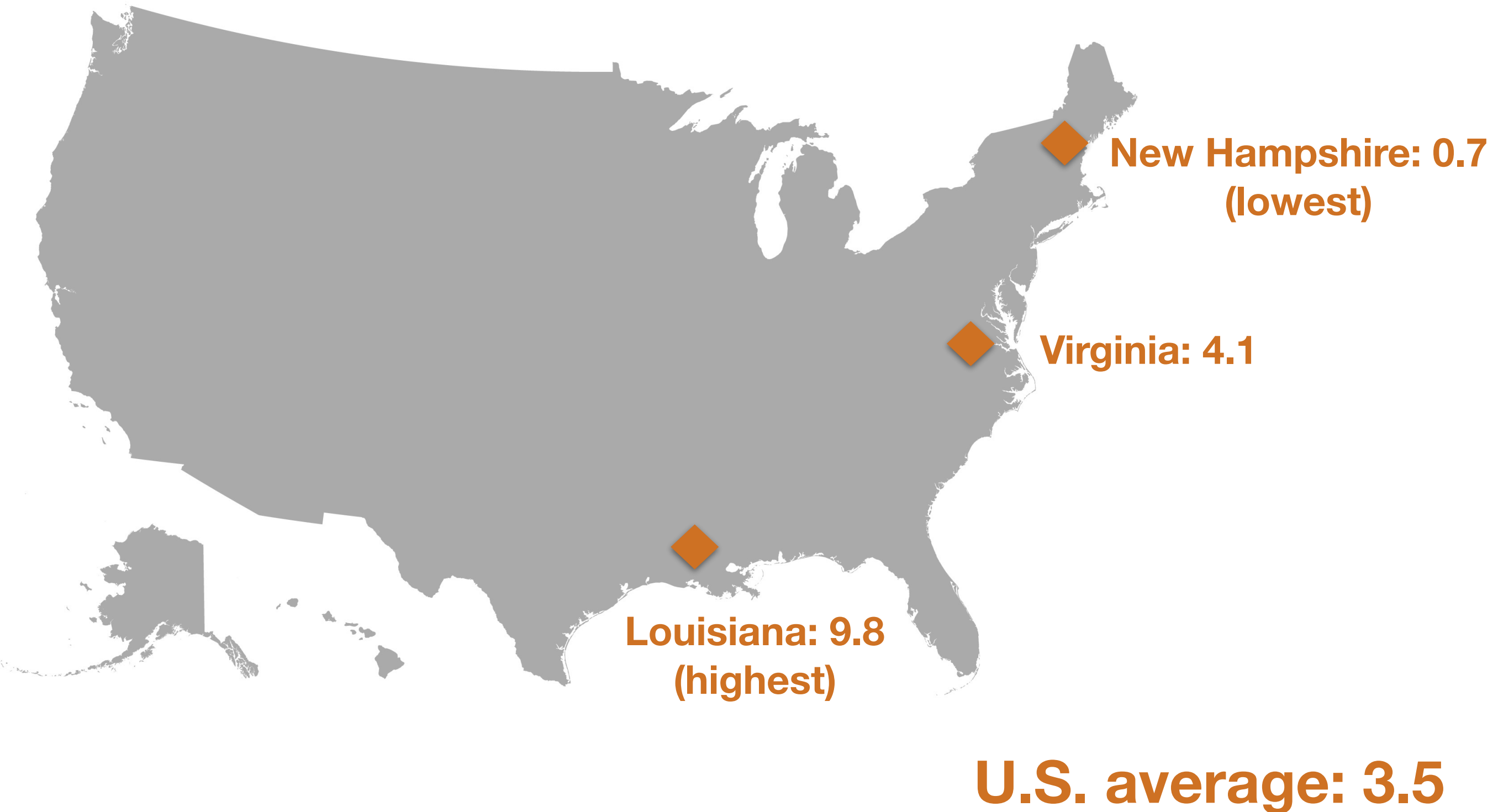
Agenda

- Overview of firearm homicide
- Study methods
- WHAT, WHO, WHEN, WHY laws
- Findings
- Implications
- Red Flag laws
- Firearm laws and suicide

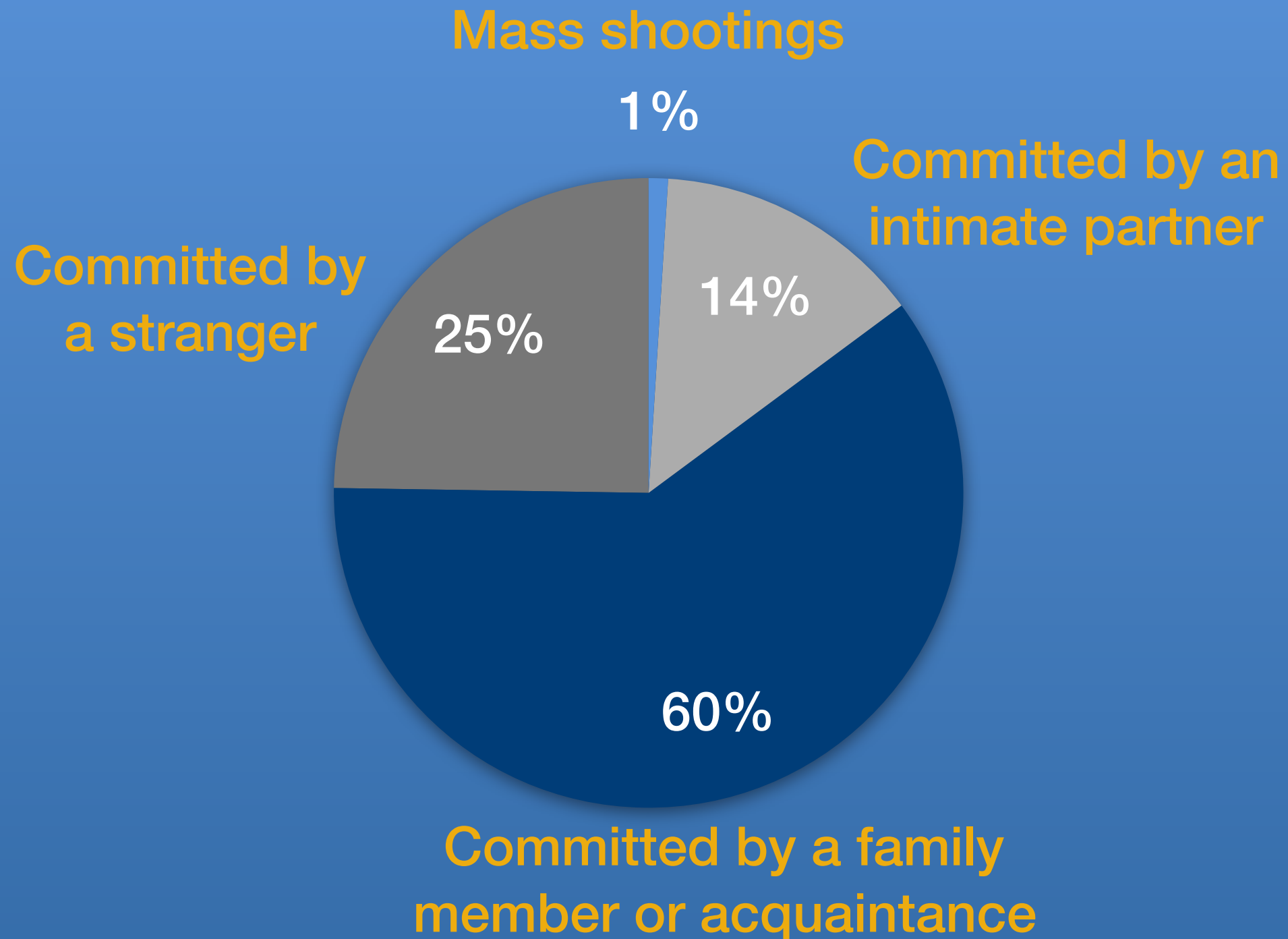
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Firearm homicide rates

(per 100,000)



Firearm homicide breakdown



- Overview of firearm homicide
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Methods

- Goal: assessing the impact of firearm laws on homicide rate
- Collected data on 14 categories of laws in 50 states from 1991
- Compared outcomes: homicide rates, stratified by firearm vs. non-firearm
- Difference in differences analysis with state and year fixed effects, with or without lagged dependent model
- Linear model with logged homicide rates as outcome
- Count model with homicide counts as outcome
- Substitution test and falsification test

Control variables

Demographic data	Total population Population density Proportion of Black Proportion of Hispanic Proportion of young Proportion of males
Crime data	Per capita number of law enforcement officers Violent crime rate (assault, rape, and robbery) Property crime rate (burglary, larceny, and motor vehicle theft)
Economic Data	Poverty rate Unemployment Income inequality (Gini coefficient)
Other	Gun ownership (based on a proxy) Density of gun dealers (per capita federally licensed gun dealers) Per capita alcohol consumption

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Laws regulating the use of firearms



WHAT

Laws regulating what types of firearms are allowed and how many can be purchased



WHO

Laws regulating who may purchase or possess a firearm



WHEN

Laws regulating when firearms may be used



WHY

Laws regulating why firearms may be purchased

WHAT

Laws regulating what types of firearms are allowed and how many can be purchased

Law	Description	States (2016)
Assault weapon ban	Laws ban the sale of both assault pistols and other assault weapons.	CA, CT, MA, NJ, NY
Large capacity ammunition magazine ban	Laws ban the sale of both assault pistol ammunition and other large capacity magazines.	CA, CO, CT, MD, MA, NJ, NY
One gun per month laws	Buyers can purchase no more than one handgun per month, even if they have a concealed carry permit. In order to bypass this restriction, the buyer must be able to demonstrate an extraordinary need for the additional handgun. This may or may not apply to purchases from private sellers.	CA, MD, NJ

WHO

Laws regulating who may purchase or possess a firearm

Law	Description	States (2016)
Universal background checks	Individuals must undergo a background check to purchase any type of firearm, either at the point of purchase or through a license/permit application.	CA, CO, CT, DE, HI, IL, MA, NJ, NY, OR, RI, WA
“May issue”	This provision refers to a "may issue" system, in which the state grants the issuing authority wide discretion to deny a concealed carry or a carry permit, for reasons such as a person lacking good character or failing to demonstrate a sufficient need to carry a concealed weapon.	CA, CT, DE, HI, MD, MA, NJ, NY, RI
Violent misdemeanor laws	Law prohibits gun possession by people who have committed violent misdemeanors punishable by less than one year of imprisonment.	CA, CT, HI, MD
Prohibitions based on commitment for mental illness, or substance abuse	Firearm possession is prohibited for people who have been involuntarily committed for mental health treatment, or for people who are being treated for alcohol-related reasons, or for people suffering from alcoholism.	AL, AZ, AK, CA, CT, DE, HI, IL, KS, ME, MD, MA, MN, MS, NE, NJ, NY, NF, OH, OR, PA, RI, SC, TN, UT, VA, WA, WV, WI
Prohibition based on age	Age restriction (18 or 21) to buy a long gun or a hand-gun.	AZ, CA, CT, DE, FL, HI, IA, LA, MD, MA, MN, MO, NE, NV, NJ, NY, OH, OK, OR, PA, RI, TX, WA, WV, WI

WHEN

Laws regulating when firearms may be purchased

Law	Description	States (2016)
Absence of a Stand Your Ground Law	Use of deadly force is not allowed to be a first resort in public. There is a duty to retreat (except if the person is in a vehicle).	AR, CA, CO, CT, DE, HI, ID, IL, IA, ME, MD, MA, MN, NE, NJ, NM, NY, ND, OH, OR, RI, VT, VA, WA, WI, WY

WHY

Laws regulating why firearms may be used

Law	Description	States (2016)
Firearm trafficking laws	The law prohibits the trafficking of firearms; that is, the purchase of firearm with the intent to re-sell the firearm, but without going through a background check process. An exception for transfer to relatives is acceptable.	CA, CO, CT, DE, FL, IL, MA, MN, NY, ND, OH, UT, VA

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Finding 1:

**The laws regulating WHAT have
no effect on overall homicide**

No effect:

Assault weapons bans
Large capacity ammunition magazine bans
One gun per month

Definition of an assault weapon (from the 1994 ban)

Semi-automatic rifles able to accept detachable magazines and two or more of the following:

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Semi-automatic rifles able to accept detachable magazines and two or more of the following:

- Folding or telescoping stock**

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- Pistol grip

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Semi-automatic rifles able to accept detachable magazines and two or more of the following:

- Folding or telescoping stock
- Pistol grip
- Bayonet mount

Definition of an assault weapon (from the 1994 ban)

Semi-automatic rifles able to accept detachable magazines and two or more of the following:

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- Flash hider or threaded barrel designed to accommodate one

Definition of an assault weapon (from the 1994 ban)

Semi-automatic rifles able to accept detachable magazines and two or more of the following:

- Folding or telescoping stock
- Pistol grip
- Bayonet mount
- Flash hider or threaded barrel designed to accommodate one
- Grenade launcher

Assault weapon ban:

- Arbitrary definition**
- Does not affect overall firearm homicide**
- Mostly affects recreational gun owners**

High capacity magazine ban:

- Does not affect overall firearm homicide
- Can make a difference in mass shooting cases

Finding 2:

**The laws regulating WHO have
a significant effect on homicide**

Effect of State Firearm Laws on Homicide Rates, 1991-2016

Laws with significant effect

Type of state law	Difference in total homicide rate	Difference in firearm homicide rate	Type of regulation
Violent misdemeanor	-19.3%	-26.7%	Violent history
May issue	-11.1%	-15.0%	Enforcement of prohibitor
Universal background checks	-9.6%	-12.9%	Violent history

Laws without significant effect

Age restrictions	Too narrow prohibitor
Prohibitions based on commitment for mental illness, alcoholism, or drug abuse	Too broad prohibitor

Relationship between number of laws in effect and total homicide

Number of laws in effect	Percentage difference	95% Confidence Interval
No Laws	Reference group	
One law	-10.1%	-5.1% to -14.8%
Two laws	-22.3%	-15.6% to -28.6%
Three laws	-34.6%	-27.9% to -40.7%

Finding 3:

The laws regulating WHEN and WHY have no effect on homicide

No effect:

Firearm trafficking laws

Stand-your-ground laws

Study limitation: not enough data on stand-your-ground laws over time

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Implication 1:

**Past violence is the
strongest predictor of
violence**

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Implication 2:

**Mental health is not a
predictor of violence**

**Prohibitions based on commitment for
mental illness, alcoholism, or drug abuse**

Too broad
prohibitor

Mental health firearm policies:

- Ineffective**
- Too broad**
- May prevent lawful citizens from acquiring guns**
- May prevent gun owners from seeking treatment**

Implication 3:

**Prohibitors must be
combined with enforcement
policies**

Intimate Partner Homicide:

From Diez, Kurland, Rothman et al. (2017)

Prohibitor:

States with a law **prohibiting** domestic abusers from possessing firearms have **no significant reduction** in intimate partner homicide

Prohibitor + Enforcement:

States with a law requiring domestic abusers to **relinquish** their firearms have a **14% reduction** in firearm intimate partner homicide.

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Red Flag Laws

Also called “extreme risk protection order”

- Too recent to include in our study**
- Evidence that they are associated with lower suicide rates**
- Hypothesized to be associated with lower homicide rates (WHO-type law)**

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Firearm Suicide

Availability of firearms seems to impact suicide in at least two ways:

- Reduces the time period between first suicidal thoughts and suicide
- Increase lethality of suicide

Firearm Suicide

Some laws that do not affect the homicide rates affect the suicide rates:

- Prohibitions based on commitment for mental illness, alcoholism, or drug abuse
- Prohibitions based on age

Study Limitations

- Not enough data on most recent laws
- Impossible to look at domestic violence laws
- Laws reducing overall homicides are not the same as laws targeting specific types of violence (mass shootings)

Conclusion

The most effective laws in reducing overall homicides regulate WHO can access firearms:

- Violent misdemeanor laws
- May issue laws
- Universal background checks

Red Flag Laws are likely to have an effect

Other laws are effective in reducing suicides:

- Prohibition based on mental health and substance abuse
- Age-based prohibitions
- Red Flag laws

Thank you

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