Firearm Violence:
Epidemiology and Risk Factors

Consortium for Risk-Based Firearm Policy
University of New Mexico
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• 304,215 deaths from firearm suicide or homicide (firearm violence), 2004-2013
  – 316,442 altogether
• 32,383 deaths, 2013
• 69.5% of homicides, 51.5% of suicides
• $164.6 B in aggregate costs for firearm violence, 2010: ~1.1% of GDP
Death Rates from Motor Vehicle Traffic Events and Firearm Violence, 1950-2013

![Graph showing death rates from motor vehicle traffic events and firearm violence from 1950 to 2013. The graph indicates a decline in deaths from motor vehicles and a peak in the 1970s before declining, while deaths from firearms show a peak in the 1960s and then a decline.]
Death Rates from Firearm Suicide and Homicide, 1981-2013

Deaths/100,000 Population

Year

Suicide
Homicide

Death Rates from Firearm Suicide and Homicide, 1981-2013
Death Rates from Firearm Violence by State, 2013

Deaths/100,000 Population

Death Rates from Firearm Homicide
Males, 2012

[Graph showing death rates from firearm homicide by age and race/ethnicity for males in 2012.]
Death Rates from Firearm Violence
Males, 2012
Deaths from Firearm Violence
Males, 2012

Number of Deaths

Age

White
Black
Hispanic
Background Checks for Firearm Transfers

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## Prior Crimes and Relative Risk of Future Arrest among Handgun Purchasers

<table>
<thead>
<tr>
<th>Prior Convictions</th>
<th>Relative Risk</th>
<th></th>
<th></th>
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</thead>
<tbody>
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<td></td>
<td>Any</td>
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<td>Violent</td>
<td>Violent Crime Index</td>
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<tr>
<td>Gun-, Vio-</td>
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<td>2+</td>
<td>7.8</td>
<td>6.5</td>
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<tr>
<td>Gun+, Vio-</td>
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<tr>
<td>Vio+</td>
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<td>9.3</td>
<td>8.7</td>
<td>8.9</td>
<td>9.4</td>
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<tr>
<td></td>
<td>2+</td>
<td>11.3</td>
<td>11.7</td>
<td>10.4</td>
<td>15.1</td>
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</table>

Referent: Purchasers with no prior criminal record
## Handgun Purchase and Relative Risk of Arrest among Violent Misdemeanants

Referent: Persons whose purchases were denied

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Gun/Violent Crime</th>
<th>Other Crime</th>
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</thead>
<tbody>
<tr>
<td>All</td>
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<tr>
<td>1 Conviction</td>
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<tr>
<td>4+ Convictions</td>
<td>1.8</td>
<td>0.9</td>
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<tr>
<td>1 G/V Conviction</td>
<td>1.4</td>
<td>1.0</td>
</tr>
<tr>
<td>3+ G/V Convictions</td>
<td>0.9</td>
<td>0.8</td>
</tr>
</tbody>
</table>
Alcohol and Firearms

- 30d alcohol use: **55%** any, **17%** binge, **6%** chronic
- Firearm ownership: ~**50M** total; 35% of men, 11% of women
- 30d alcohol use among firearm owners: **8.9-11.7M** binge, **2.5-3.6M** chronic

Sources: 2010 BRFSS (alcohol), General Social Survey (firearms)
Alcohol Abuse and Violence

• Prevalence of acute intoxication
  – 37% of violent felony perpetrators (BJS surveys)
  – 46% of homicide perpetrators (BJS surveys)
  – 25.7% of firearm suicide perpetrators (tox)*
  – 30.2% of firearm homicide victims (tox)*

• Relative risk:
  – Interpersonal violence perpetration, \(3x-6x\) (pre-existing)
  – Firearm violence victimization, \(3x-6x\) (acute)
  – Firearm suicide, \(3x-10x\) (pre-existing); \(75x-85x\) (acute)

• Dose-response

* Branas C. Alcohol and Firearms. Forthcoming.