Gun Violence in Leon County, 2019-2023
Presentation to the LCSO CVIPI Planning Team

Dr. Emma Fridel

PI: Dr. Thomas Blomberg
Co-PIs: Dr. Emma Fridel & Dr. Kim Davidson
Overview

• Historical trends of fatal and nonfatal gun violence
• Comparison with other counties in Florida
• Detailed analysis of LCSO and TPD case files
Trends over Time: Homicide

Trends: Homicide

Homicide Rate per 100,000


Florida Leon County

Source: Florida Department of Law Enforcement (FDLE)
Trends: Firearm Homicide

Source: Florida Department of Law Enforcement (FDLE)
Trends: Firearm Assault

Source: Florida Department of Law Enforcement (FDLE)
Trends: Homicide

Source: Florida Department of Law Enforcement (FDLE)
Trends: Firearm Homicide

Source: Florida Department of Law Enforcement (FDLE)
Trends: Firearm Assault

Source: Florida Department of Law Enforcement (FDLE)
## Leon County in Context

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentile Relative to All Counties in Florida</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>67</td>
</tr>
<tr>
<td>Unemployment</td>
<td>76</td>
</tr>
<tr>
<td>Firearm homicides</td>
<td>79</td>
</tr>
<tr>
<td>Racial/ethnic diversity</td>
<td>82</td>
</tr>
<tr>
<td>Poverty</td>
<td>85</td>
</tr>
<tr>
<td>Firearm assaults</td>
<td>88</td>
</tr>
<tr>
<td>Homicides</td>
<td>90</td>
</tr>
<tr>
<td>Residential turnover</td>
<td>99</td>
</tr>
</tbody>
</table>

Source: Florida Department of Law Enforcement (FDLE); American Community Survey (ACS, 2017-2021)
Methods

- Collected data on all incidents in which shots were fired with the intent to harm another person, including:
  - Homicides (all weapons)
  - Aggravated assault
  - Aggravated battery
  - Shootings into dwellings and conveyances ("drive-bys")
- Time period: June 2019 – June 2023
- Examined 1,930 cases for inclusion and identified 733 relevant incidents
Number of Incidents by Type

Number of Incidents, 2019-2023

- Homicide: 70
- Attempted Homicide: 101
- Aggravated Assault: 356
- Missile into Conveyance: 206
Shootings in Leon County by Agency, 2019-2023

Note: Data for 2019 and 2023 projected based on monthly data from 2020-2022
### Shootings in Leon County by ZIP Code, 2019-2023

<table>
<thead>
<tr>
<th>ZIP Code</th>
<th>Number of Incidents</th>
<th>Rate per 10,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>32310</td>
<td>119</td>
<td>84.46</td>
</tr>
<tr>
<td>32304</td>
<td>238</td>
<td>51.91</td>
</tr>
<tr>
<td>32301</td>
<td>112</td>
<td>34.54</td>
</tr>
<tr>
<td>32305</td>
<td>68</td>
<td>32.67</td>
</tr>
<tr>
<td>32303</td>
<td>121</td>
<td>23.91</td>
</tr>
<tr>
<td>32308</td>
<td>18</td>
<td>8.03</td>
</tr>
<tr>
<td>32311</td>
<td>16</td>
<td>7.54</td>
</tr>
<tr>
<td>32312</td>
<td>24</td>
<td>7.51</td>
</tr>
<tr>
<td>32307</td>
<td>1</td>
<td>5.69</td>
</tr>
<tr>
<td>32309</td>
<td>8</td>
<td>2.39</td>
</tr>
<tr>
<td>32317</td>
<td>2</td>
<td>1.38</td>
</tr>
<tr>
<td>32306</td>
<td>0</td>
<td>0.00</td>
</tr>
</tbody>
</table>
### Shootings in Leon County by Neighborhood, 2019-2023

<table>
<thead>
<tr>
<th>Neighborhood</th>
<th>Number of Incidents</th>
<th>Rate per 10,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Providence</td>
<td>29</td>
<td>163.01</td>
</tr>
<tr>
<td>Bond</td>
<td>55</td>
<td>151.68</td>
</tr>
<tr>
<td>Southside</td>
<td>26</td>
<td>83.15</td>
</tr>
<tr>
<td>Frenchtown</td>
<td>76</td>
<td>74.81</td>
</tr>
<tr>
<td>Other</td>
<td>543</td>
<td>30.07</td>
</tr>
</tbody>
</table>

Note: Neighborhoods defined by City of Tallahassee Neighborhood Revitalization Strategy Area Plan, 2020-2024
Shootings in Leon County, 2019-2023

Legend
- Homicide (all weapons)
- Firearm Assault
Shootings in Tallahassee, 2019-2023

Legend
- Homicide (all weapons)
- Firearm Assault
Shootings by Socioeconomic Disadvantage

Legend
- Homicide (all weapons)
- Firearm Assault

Socioeconomic Disadvantage
- Lowest (20th percentile)
- Low (40th percentile)
- Moderate (60th percentile)
- High (80th percentile)
- Highest (99th percentile)
Shootings by Socioeconomic Disadvantage

Legend
- Homicide (all weapons)
- Firearm Assault

Socioeconomic Disadvantage
- Lowest (20th percentile)
- Low (40th percentile)
- Moderate (60th percentile)
- High (80th percentile)
- Highest (99th percentile)
Shootings by Owner-Occupied Housing

Legend
- Homicide (all weapons)
- Firearm Assault

Percent Owner Occupied
- Lowest (20th percentile)
- Low (40th percentile)
- Moderate (60th percentile)
- High (80th percentile)
- Highest (99th percentile)
Shootings by Owner-Occupied Housing

Legend
- Homicide (all weapons)
- Firearm Assault

Percent Owner Occupied
- Lowest (20th percentile)
- Low (40th percentile)
- Moderate (60th percentile)
- High (80th percentile)
- Highest (99th percentile)
## Negative Binomial Regression on Shootings in 191 Block Groups in Leon County, 2019-2023

<table>
<thead>
<tr>
<th>Standardized Predictor</th>
<th>IRR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concentrated disadvantage</td>
<td>1.721***</td>
<td>[1.413-2.095]</td>
</tr>
<tr>
<td>Racial/ethnic heterogeneity</td>
<td>0.773**</td>
<td>[0.651-0.919]</td>
</tr>
<tr>
<td>Residential stability</td>
<td>0.521***</td>
<td>[0.404-0.671]</td>
</tr>
<tr>
<td>Percent divorced</td>
<td>1.243*</td>
<td>[1.022-1.511]</td>
</tr>
<tr>
<td>Percent male</td>
<td>0.956</td>
<td>[0.805-1.136]</td>
</tr>
<tr>
<td>Percent aged 18 to 24</td>
<td>1.187</td>
<td>[0.908-1.552]</td>
</tr>
</tbody>
</table>

Note: IRR = incidence rate ratio; CI = confidence interval
* p < 0.05 ** p < 0.01 *** p <0.001
Predicted Number of Shootings by Block Group Disadvantage

Note: Concentrated disadvantaged measured from -3 to 3 standard deviations. Estimates based on a four-year period.
Predicted Number of Shootings by Owner-Occupied Housing

Note: Owner-occupied housing measured from -2 to 2 standard deviations. Estimates based on a four-year period.
Incident Characteristics

- Suspect(s) identified: 42.6%
- Case officially cleared: 32.2%
- Victim possessed weapon: 9.8%
- Fired directly at person: 48.7%
- Drug trade/usage: 13.5%
- Gang related: 6.3%
- Domestic violence: 10.5%
- Argument: 33.0%

Note: Percentages calculated assuming missing observations are negative, likely undercounting the true value.
Argument Type

- Petty: 20.3%
- Jealousy: 15.7%
- Money or Property: 8.7%
- Theft or Robbery: 7.4%
- Drug-related History of arguments: 5.0%
- History of arguments: 5.8%
- Other and unspecified: 37.2%

Note: Percentages calculated based on 242 incidents with confirmed arguments.
Location Type

Note: Percentages calculated based on 721 incidents with known location
Victim Characteristics (N = 1,255)

- Average age: 28.9 years
  - 12.9% under 18
- Race/Ethnicity
  - 13.1% White
  - 82.1% Black
  - 4.8% Other
- Gender
  - 59.7% male
  - 40.3% female
- Injury (Assault only)
  - 43.3% nonfatal
  - 56.7% none
- Cooperation (Assault only)
  - 79.5% cooperative
  - 18.4% uncooperative
- 3.4% experienced multiple victimizations during the study period

Note: Percentages calculated based on victims with nonmissing information; number of observations varies.
Suspect Characteristics (N = 414)

- Average age: 27.3 years
  - 11.8% under 18
- Race/Ethnicity
  - 13.3% White
  - 83.8% Black
  - 2.9% Other
- Gender
  - 87.4% male
  - 12.6% female
- 28.0% confirmed or suspected gang members
- 17.3% acted as accomplices
- 3.1% also experienced victimization during the study period

Note: Percentages calculated based on suspects with nonmissing information; number of observations varies.
Victim-Offender Relationship

Note: Percentages calculated at the individual level based on 713 known relationships in 342 incidents.
Summary

• There were 733 shootings and homicides in Leon County from June 2019 to June 2023, involving 1,255 victims and 414 identified suspects
• Incidents clustered in neighborhoods characterized by high levels of socioeconomic disadvantage and residential turnover
• Most incidents
  • Involved young Black men as both victims and suspects
  • Involved acquaintances and strangers
  • Occurred in the street or private residences
  • Were not directly related to drugs and gangs
Thank you!

Questions?