Permitless Carry and Crime Trends: A Tale of Two Rivals - Ohio vs. Michigan*

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Abstract

In the past decade, almost two dozen states have passed permitless or constitutional carry laws, allowing citizens to carry a concealed handgun without a permit. As one of those states, Ohio implemented its own such law in mid-2022. Its neighbor to the north, Michigan, however, prohibits concealed carrying of a firearm without a license. This study analyzed firearm-related crime incidents in Ohio's eight largest cities and compared them to similar cities in Michigan before and after Ohio's law took effect, to see if the change in legislation was associated with any differences in crime trends.

Background

- Mixed results on the true impact of permitless carry, and like laws, on crime and public safety.
- More lenient carry laws are associated with higher rates of fatal and non-fatal officer and citizen shootings.
  - Average of 12.9% increase in the rate of officer involved shootings.
- Impact on police:
  - Increased perceived threat of danger and suicide-by-cop incidents.
  - Decreased police-community relations and crime-suppressing police operations.

Method

Sample
- 1 June 2021 – 30 June 2023
- Ohio Incident-Based Reporting System (OIBRS) data for:
  - Columbus, Cleveland, Cincinnati, Toledo, Akron, Dayton, Parma, and Canton
- Michigan Incident Crime Reporting (MICR) data for:
  - Detroit, Grand Rapids, Warren, Sterling Heights, Lansing, Dearborn, Flint, Kalamazoo
- Crime incidents involving a firearm

Analysis
- Independent Samples T-Test
- Mann-Kendall Trend Test (MK)

Limitations
- Generalizability
- Time period
- Crime incident data provided by different sources: Ohio Incident-Based Reporting System (OIBRS), Michigan Incident Crime Reporting (MICR).

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Figure 1. Ohio Incidents Involving a Firearm per 1,000 Persons

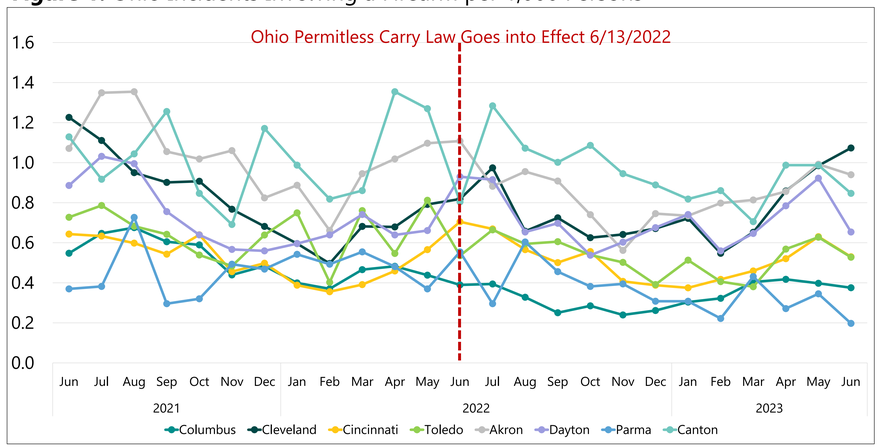


Figure 2. Michigan Incidents Involving a Firearm per 1,000 Persons

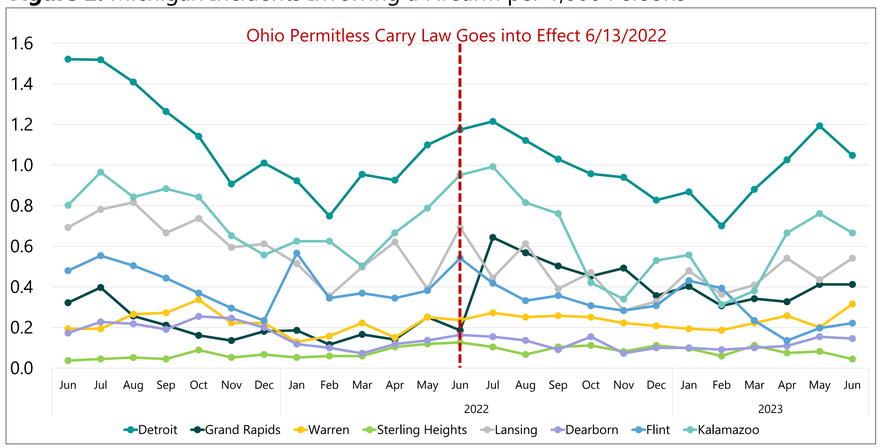


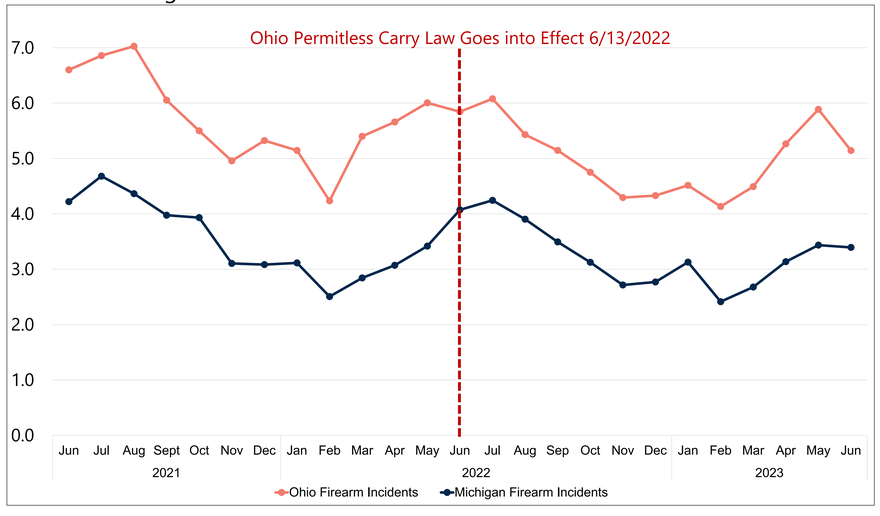
Table 1. MK and Independent Samples T-Test Results (OH). Significant findings are bolded.

	Mann-Kendall Trend Test			Independent Samples T-Test		
City	tau	*p*-value	Sen's Slope	*t*-value	*df*	*p*-value
Columbus	**-0.231**	**0.02**	**-2**	**2.007**	**48**	**0.05**
Cleveland	-0.19	0.056	-0.778	0.645	48	0.522
Cincinnati	-0.047	0.642	-0.279	-0.482	48	0.632
Toledo	**-0.263**	**0.018**	**-0.566**	**2.613**	**40.3**	**0.013**
Akron	**-0.289**	**0.004**	**-0.775**	**2.87**	**48**	**0.006**
Dayton	-0.041	0.692	-0.055	-0.801	48	0.427
Parma	-0.187	0.064	-0.125	**2.42**	**48**	**0.019**
Canton	-0.075	0.458	-0.078	0.709	48	0.481
All Cities Combined	**-0.209**	**0.035**	**-4.5**	1.396	48	0.169

Table 2. MK and Independent Samples T-Test Results (MI). Significant findings are bolded.

	Mann-Kendall Trend Test			Independent Samples T-Test		
City	tau	*p*-value	Sen's Slope	*t*-value	*df*	*p*-value
Detroit	**-0.28**	**0.004**	**-2.5**	1.564	48	0.124
Grand Rapids	**0.26**	**0.008**	**0.44**	**-7.380**	**48**	**<0.001**
Warren	0.03	0.802	0.01	-0.763	48	0.449
Sterling Heights	**0.26**	**0.011**	**0.08**	**-2.305**	**48**	**0.026**
Lansing	**-0.37**	**0.001**	**-0.35**	**3.190**	**48**	**0.003**
Dearborn	**-0.04**	**0.001**	**-0.11**	**2.220**	**48**	**0.031**
Flint	**-0.33**	**0.001**	**-0.19**	1.974	48	0.054
Kalamazoo	**-0.26**	**0.008**	**-0.25**	1.671	48	0.101
All Cities Combined	**-0.26**	**0.009**	**-3.10**	0.974	48	0.335

Figure 3. Total Rates of Incidents Involving Firearms Per 1,000 Persons, Select Cities in Ohio and Michigan



Findings & Discussion

Findings
- Crimes rates in Ohio and Michigan show similar trends, including seasonal increases during spring and summer, both pre- and post-PCL. Seasonal highs in both states decreased each year.
- MK Trend Test
  - Significant decrease in Akron, Columbus, and Toledo, and across all 8 Ohio cities combined.
  - Significant decrease in Detroit, Lansing, Dearborn, Flint, Kalamazoo, and all 8 Michigan cities combined.
  - Significant increase in Grand Rapids and Sterling Heights.
- Independent Samples T-Test
  - Significant variations in the average number of incidents in Columbus, Akron, Parma, and Toledo, OH; Grand Rapids, Sterling Heights, Lansing, and Dearborn, MI, pre- and post- PCL.

Future Directions
- Extend the study timeframe to capture long-term trends.
- Examine additional cities in PCL and non-PCL states.
- Control for other variables known to have an influence on firearm crimes.