What Maryland's Gun Licensing Law Revealed About Criminal Gun Supply

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Executive Summary

In 2013, Maryland adopted a permit-to-purchase (PTP) law to add a liscensing requirement in order to purchase handguns. This added to its existing background check and minimum age laws. This made Maryland one of the more regulated states for handgun purchases. Using synthetic control method, I find that Maryland's PTP law led to a substantial decline in legal handgun purchasing, a measurable shift in where crime guns were sourced, and a significant increase in the delay, relative to the synthetic control (weighted average of control states) before guns were used in crimes. There might be concerns that gun restrictions reduce self-defense options and embolden criminals to commit more crime. There was no evidence of a change in crimes involving people or property crimes. The Maryland case offers clear evidence that handgun licensing can disrupt criminal gun supply without producing unintended public safety consequences.

1 Introduction

Permit-to-purchase laws raise the cost and complexity of buying a handgun by requiring a license that typically includes background checks, safety training, and state approval. Maryland's 2013 PTP law layered those licensing requirements on top of an already strong regulatory environment that included background checks and age requirements. This paper examines whether that added friction mattered. Using synthetic control, which creates a synthetic state to compare to Maryland, I esimtate the causal effect of the policy change. I find that it did matter and in ways that could offer useful insight for other states.

2 Declines in Legal Purchasing

Often federal background checks are used as an approximation for purchases. Regardless of state laws, federally licensed deals must perform a background check. Private dealers in states that do not require background checks can choose not to run federal background checks. In Maryland, following the addition of the licensing requirement, federal background checks dropped sharply.

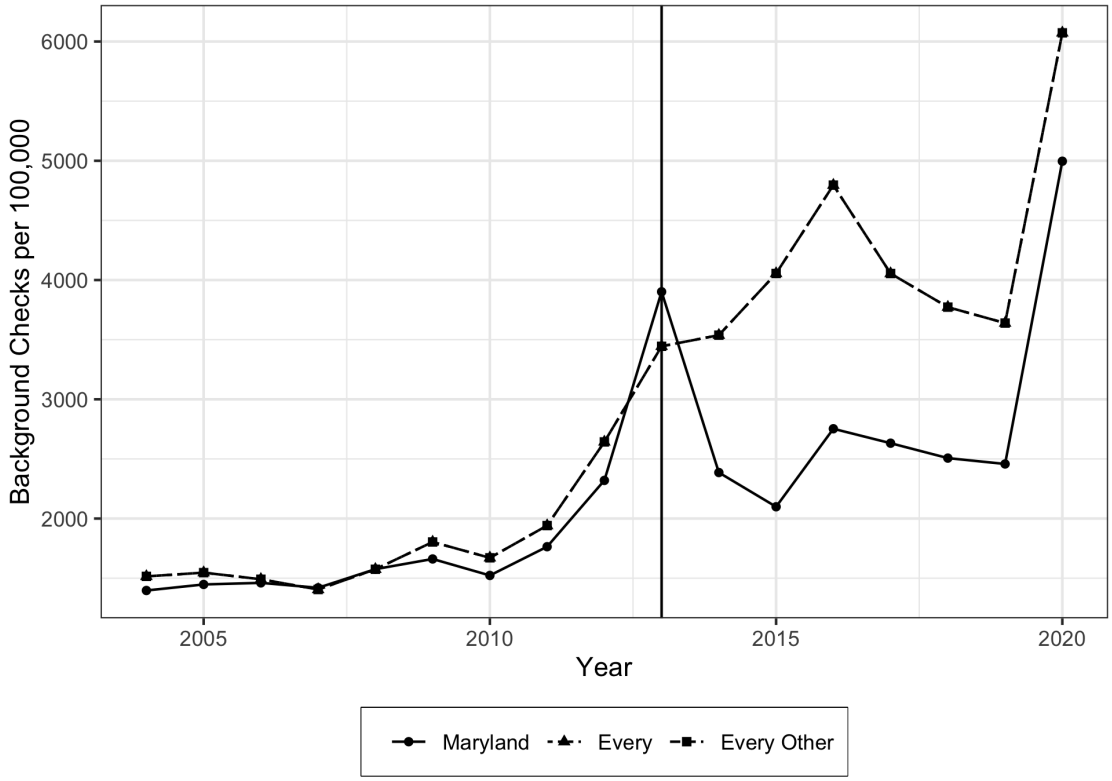


Figure 1: Federal Background Checks per 100,000: Maryland vs. Synthetic Control

This figure compares Maryland's actual background check rate to a synthetic control. A synthetic control is an estimate of what Maryland's rate would have looked like without the permit-to-purchase (PTP) law. The solid line shows the actual number of background checks per 100,000 residents. The dashed line is the synthetic trend, built from a weighted average of similar states. If the lines diverge after 2013, it indicates that the PTP law likely caused the change. The "every year" and "every other year" synthetic controls reflect two versions of this matching procedure. *In this case the synthetic method created an identical control for both methods so the lines appear on top of each other.*

Compared to its synthetic control, Maryland experienced a 23.4% fewer background checks per 100,000 residents in the 7 years following implementation. This decline suggests that the

law dissuaded a segment of potential buyers.

3 Disruption to Criminal Gun Supply

3.1 Fewer Guns Purchased In-State

Gun used in crime became less likely to have been purchased within Maryland. The self-sourced ratio is a measure of how many guns used in crime in Maryland were also purchased in Maryland. Guns used in crime that were purchased in Maryland dropped by 9.4 percentage points relative to the control group. By the end of the 7 years after the passage, the gap between Maryland and its control was almost 20 percentage points. This implies that more crime guns came in from out of state after the law made in-state acquisition more difficult.

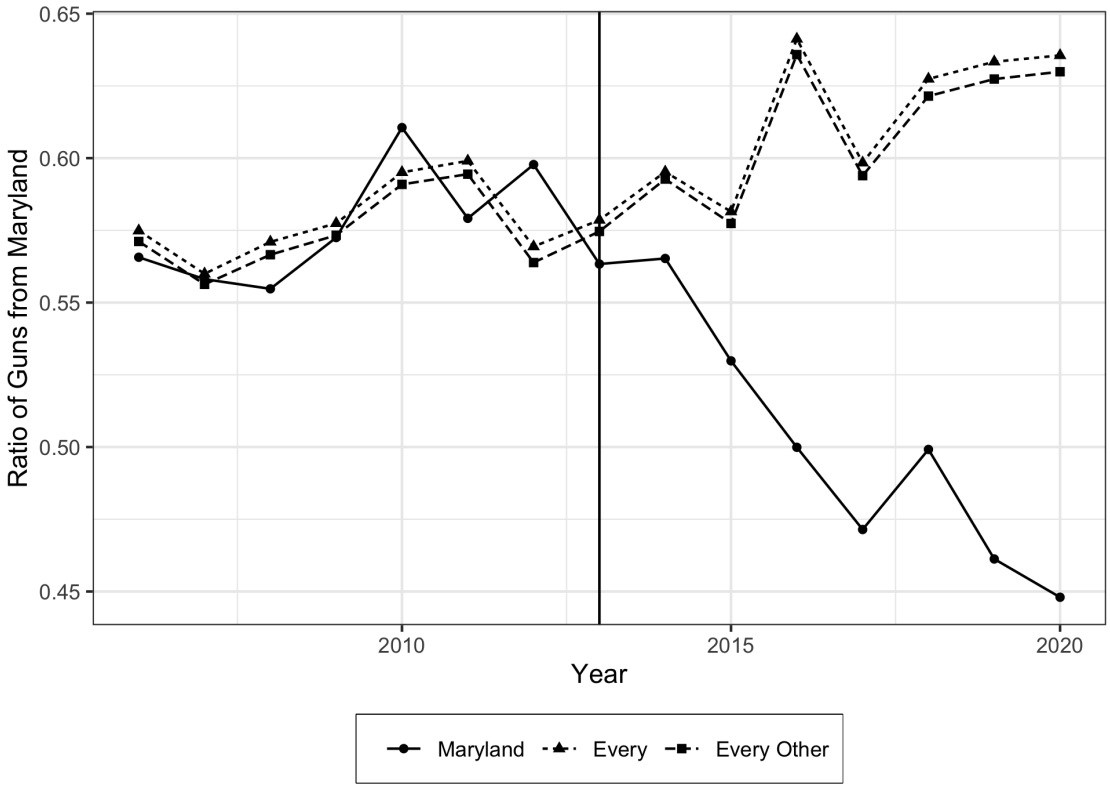


Figure 2: Self-Sourced Crime Gun Ratio: Maryland vs. Synthetic Control

Share of crime guns recovered in Maryland that were originally purchased in-state. A decline suggests fewer guns were sourced locally after the PTP law. Synthetic trend estimated using the same method as Figure 1.

3.2 3.2 Guns Took Longer to Be Used in Crime

Time-to-crime is the number of years it takes a gun to go from purchased to used in a crime. If newly purchased guns are used in crime, this would lower the average. The average time-to-crime remained longer in Maryland relative to the control. On average, the time-to-crime was 3.3 years longer than the control. This means guns used in crime were, on average, older and less recently purchased.

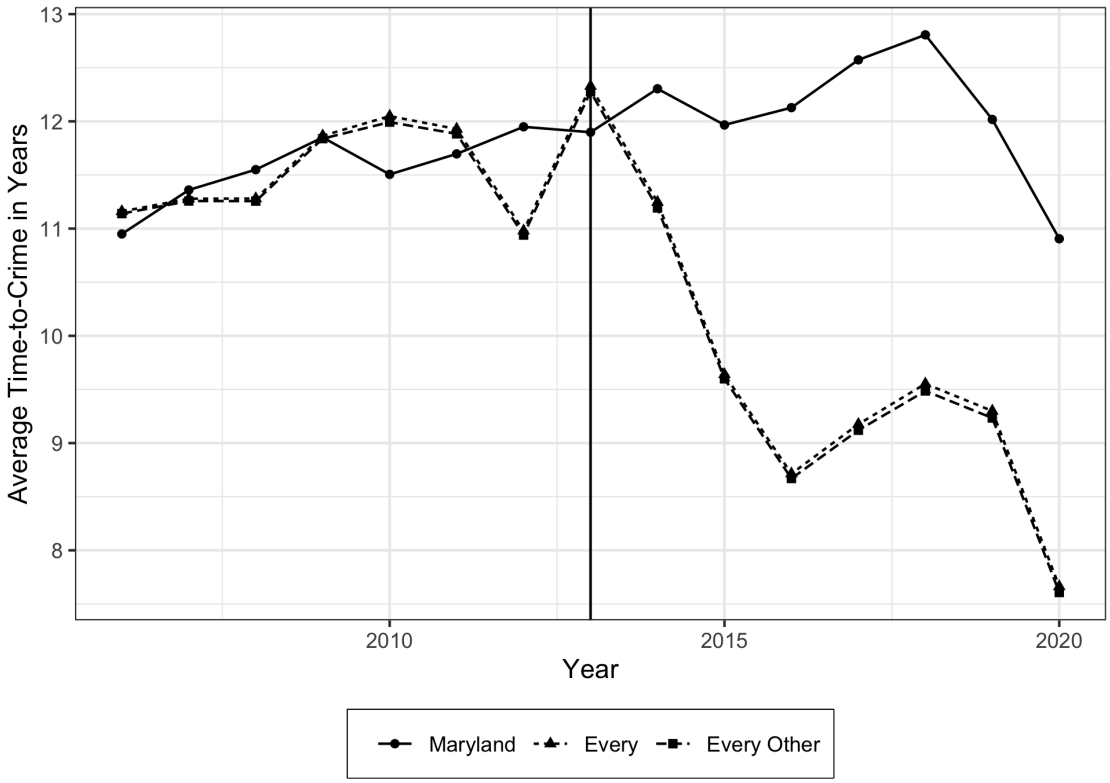


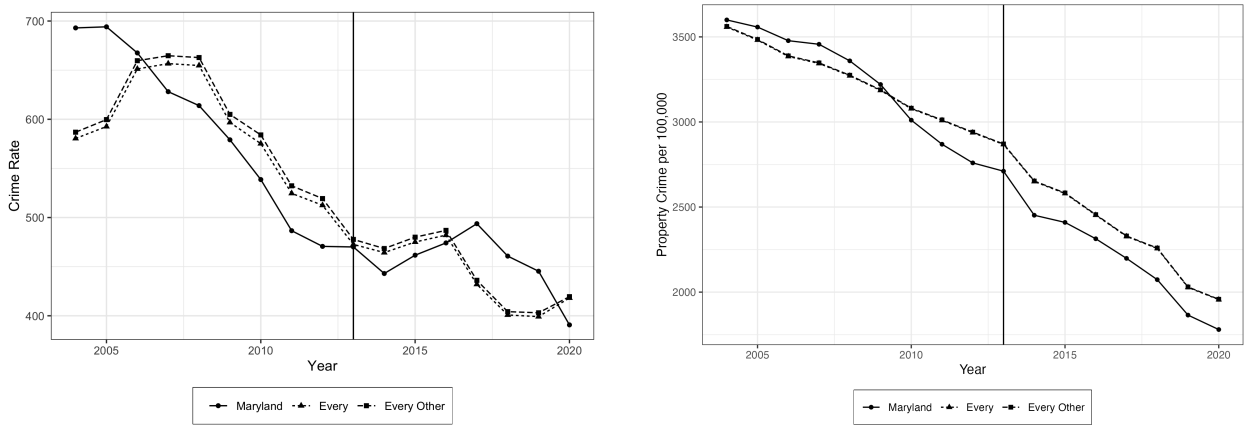
Figure 3: Average Time-to-Crime (Years): Maryland vs. Synthetic Control

Average number of years between a gun's legal purchase and its recovery in a crime. Longer time-to-crime implies reduced access to newly purchased firearms. Methodology is consistent with that used in Figure 1.

The policy likely restricted access to newly acquired handguns, particularly those obtained by straw purchasers. Straw purchases are a mechanism for criminals to obtain guns through other citizens who are legally allowed to purchase guns. The licensing requirement created a delay in purchasing and the requirement to register with the state. This likely made the risk much higher for straw purchasers. This is only one possible mechanism for these results.

4 No Measurable Increase in Crime

Crucially, there is no evidence that violent or property crime rose after the law went into effect. There is often concern that making guns harder to purchase might embolden criminals by limiting self-defense options for citizens. Maryland's rates remained comparable to its synthetic control. These findings challenge the claim that tighter gun restrictions reduce deterrence. Also of note, property crime, which is crime that would not usually involve confrontation with another person, also saw no change in Maryland, relative to the synthetic control. This shows that crime choice was not altered either.



(a) Violent Crime Rate: Maryland vs. Synthetic Control

(b) Property Crime Rate: Maryland vs. Synthetic Control

Figure 4: Crime Rates in Maryland Before and After PTP Implementation (2013)

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5 Conclusion

Maryland's PTP law successfully reduced legal handgun sales (as estimated by background checks) and limited access to new guns for criminal use. Guns recovered in crimes were increasingly from outside the state and were older on average. Yet these changes did not come at the cost of more crime. Permit-to-purchase laws, at least in Maryland, do appear to reshape the conditions under which guns are purchase and used in crime. Maryland provides a compelling example of how targeted licensing policies can reduce in-state risk without increasing public safety costs.

Note: Full paper with Missouri, Connecticut, and Maryland is available at: `https://brendancirillo.com/assets/pdf/ptp_paper_jul25_draft.pdf`