

Crime Gun Intelligence Centers: *Reviewing the Evidence* Research Brief

What is a CGIC and Why Should We Evaluate It?

Crime Gun Intelligence Centers (CGICs) are interagency collaborations between local police agencies, crime labs, probation and parole, crime analysts, community groups, the Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF), local prosecutors, and the U.S. Attorney’s Office (USAO) focused on the comprehensive collection, processing, investigation, and prosecution of individuals who use crime guns.

Research plays a critical role in understanding and improving CGIC processes by identifying effective strategies and opportunities for improvement, supporting data-driven decision making, providing operational and outcome transparency, and facilitating strategic goal accountability. To understand the CGIC research landscape, 19 CGIC evaluations were identified and reviewed.

Of the 19 evaluations:

- 16 examined inputs, such as ballistic evidence and firearm collection and entry
- 18 examined outputs, such as timely evidence processing, National Integrated Ballistic Information Network (NIBIN) leads and/or hits, and eTrace hits
- 16 examined results, such as arrests and court dispositions
- 9 examined outcomes, such as fatal shootings, non-fatal shootings, and other crimes

Figure 1: CGIC Logic Model



What Does the Research Tell Us?

Several CGIC evaluations have identified some preliminary positive impacts and several areas in need of additional research.

- **Inputs:** Descriptive research and pre- to post-CGIC implementation assessments suggest that CGICs increase the number of casings and firearms collected and entered into NIBIN and eTrace. One randomized control trial found that specially trained patrol officers collect more ballistic evidence than untrained officers.¹ Prior research using data from 159 NIBIN sites confirms that sites that enter more evidence into NIBIN generate significantly higher numbers of NIBIN leads, which are preliminary, unconfirmed potential matches between ballistic evidence collected from two or more separate crime-gun incidents.²
- **Outputs:** Descriptive research and pre- to post-CGIC implementation assessments suggest that CGICs can reduce evidence processing delays and increase the number of NIBIN leads, NIBIN hits, and eTrace hits. One quasi-experimental study found a significant reduction in eTrace hits post-CGIC.³ More rigorous research is needed to assess whether CGICs achieve intended outputs.
- **Results:** Descriptive research and pre- to post-CGIC implementation assessments suggest that CGICs can increase case clearances (doubled for gun-involved homicides in Little Rock, Arkansas)⁴, arrests, and charges (15% more likely in CGIC 2.0 site)⁵, but the results are inconsistent across studies. A study in Detroit, Michigan, identified significant increases in case clearances.⁶ Research in Phoenix, Arizona identified significant increases in NIBIN-related arrests post-CGIC implementation, but there were no significant changes in prosecutorial charges or convictions.⁷ This could be due to the relatively short follow-up period (two years post-CGIC). It might take more time for these cases to proceed through court processes than the researchers were able to measure. The number of suspects charged and convicted did significantly increase in Chattanooga, Tennessee.⁸ A study in Washington, D.C., found no effect of a CGIC pilot enhancement on gun-related arrests.⁹ In Milwaukee, Wisconsin, 816 arrests were made in connection to NIBIN related offenses and those arrested were involved in 1,335 total offenses.¹⁰ Anecdotal evidence in Denver, Colorado demonstrates that individuals prosecuted as a result of CGICs were prolific offenders who were involved in high rates of crime in their communities.¹¹
- **Outcomes:** Descriptive research and pre- to post-CGIC implementation assessments identify different findings across studies. Some report crime decreases, others report no change, and others find crime increases. Quasi-experimental research offers similarly mixed results. NIBIN-related arrests in Milwaukee, Wisconsin, might have significantly reduced shootings in the following months by 3-12%, but these findings were dependent on the specific statistical models examined.¹² A study in Denver, Colorado, found significant reductions in robberies with a firearm post-CGIC implementation, but the CGIC was not associated with other serious violent gun crimes, gun homicides, or aggravated assaults with a gun.¹³ Similar trends were identified in Little

Rock, Arkansas, where gun robberies significantly declined but homicides, nonfatal shootings, and terroristic acts did not.¹⁴ In Baltimore, Maryland, there were significant reductions in gun crime, gun homicides, and shots fired in one CGIC district, but no significant changes in the other CGIC district examined.¹⁵ There was no significant change in violent crime or gun crime in Washington, D.C.¹⁶

In short, prior research descriptively supports early elements of the CGIC workflow, suggesting increased evidence collection, timely intelligence, and more investigative leads. Research examining the impact of CGICs on clearances, arrests, court outcomes, and crime is less conclusive. Studies that used stronger research designs offer mixed evidence of impact across these areas. Though some studies have used strong research methodologies and identified crime reductions, most quasi-experimental studies found either no change or mixed results across different crime types or places. More research is needed to rigorously examine whether CGICs are achieving their intended goals.

Want to Learn More?

Read the full report, [*Crime Gun Intelligence Centers: Reviewing the Evidence*](#), to dive into the details of the current CGIC research landscape. Check out other related CGIC resources, such as the [CGIC Metrics Guide](#), or visit crimegunintelcenters.org.

Endnotes

- ¹ Huff, J., Freemon, K., & Katz, C. M. (2024a). A Mixed-Methods Evaluation of the Phoenix Crime Gun Liaison Program: Leveraging Patrol Officers for Investigations. *Justice Evaluation Journal (Online), ahead-of-print*(ahead-of-print), 1–24. <https://doi.org/10.1080/24751979.2023.2232437>
- ² King, W. R., Matusiak, M. C., & Campbell, B. A. (2018). Organizational and environmental determinants of ballistics imaging productivity in United States crime laboratories. *Journal of Crime and Justice*, 41(4), 450–462. <https://doi.org/10.1080/0735648X.2017.1399811>
- ³ Dierenfeldt, R., Whitsett, L. K., Shadwick, J. T., Wang, X., Drawve, G., & May, J. (2025). Examining the Effectiveness of a NIBIN Investigative Unit: A Time Series Analysis. *Justice Evaluation Journal*, 1–18. <https://doi.org/10.1080/24751979.2025.2588476>
- ⁴ Rojek, J., De Biasi, A., & McGarrell, E. (2022). *Evaluation of the Detroit Crime Gun Intelligence Center*. Michigan State University. https://forensic.msu.edu/_assets/pdfs/mjsc/mjsc-detroit-cgic-final-report-2023.pdf
- ⁵ Novak, K. J., & King, W. R. (2020). *Evaluation of the Kansas City Crime Gun Intelligence Center* [Final Report]. University of Missouri-Kansas City.
- ⁶ De Biasi, A. (2024). The impact of the Detroit crime gun intelligence center on fatal and nonfatal shooting clearance rates. *Journal of Criminal Justice*, 94. <https://doi.org/10.1016/j.jcrimjus.2024.102233>
- ⁷ Flippin, M. R., Katz, C. M., & King, W. R. (2022). Examining the impact of a crime gun intelligence center. *Journal of Forensic Sciences*, 67(2), 543–549. <https://doi.org/10.1111/1556-4029.14952>.
- ⁸ See 3.
- ⁹ Mei, V., Owusu, F., Quinney, S., Ravishankar, A., & Sebastian, D. (2019). *An Evaluation of Crime Gun Intelligence Center Improvements Implemented in Washington, DC, 2016-2019* (p. 62). The LAB @ DC.
- ¹⁰ Koper, C., Vovak, H., & Cowell, B. (2019). *Evaluation of the Milwaukee Police Department's Crime Gun Intelligence Center* (p. 51) [Final Report]. National Policing Institute.
- ¹¹ See 3.
- ¹² See 10.
- ¹³ Uchida, C. D., Swatt, M. L., Anderson, K., & Hock, S. (2020). *Focus on gun violence: An evaluation of Denver's CGIC and RAVEN programs*. Justice & Security Strategies, Inc. <https://crimegunintelcenters.org/wp-content/uploads/2021/01/JSS-Eval-Denver-CGIC-Final.pdf>
- ¹⁴ Rhodes, T. (2021). *Evaluation of the Little Rock Police Department Crime Guns Intelligence Unit and ShotSpotter: Final Report*.
- ¹⁵ Swatt, M. L., Uchida, C. D., Goedert, A. M., & Wooditch, A. (2024). *An Evaluation of the Baltimore Police Department's Crime Gun Intelligence Center*. <http://crimegunintelcenters.org/wp-content/uploads/2024/05/BPD-CGIC-Eval-Final-Report-3-28-24.pdf>
- ¹⁶ See 9.