

# Crime Gun Tracing: An Overview for Investigators

When recovered crime guns are successfully traced, they can provide valuable evidence to investigators, including investigative leads, potential witnesses, the identification of co-conspirators, the existence of additional criminal acts, and even ties to other shootings.

By law, there is no central registry of firearms ownership in the United States. Therefore, when law enforcement has an investigative need to determine the origin of a firearm, the Bureau of Alcohol, Firearms, and Explosives (ATF) must manually trace the firearm's movement through commerce to the first retail purchaser. Tracing is authorized by the Gun Control Act of 1968, and only firearms involved in criminal investigations can be traced by the ATF National Tracing Center (NTC)<sup>1</sup> for law enforcement agencies. Currently, ATF receives more than 600,000 traces per year.<sup>2</sup> Firearms tracing on suspected crime guns is usually done through an ATF web-based platform for law enforcement called eTrace. The system also allows submitters to review the status of pending traces, review trace results, generate department-wide reports, and search prior traces.

The graphic below describes the process that the ATF NTC follows to provide investigative leads for federal, state, local, and foreign law enforcement agencies.<sup>3</sup>

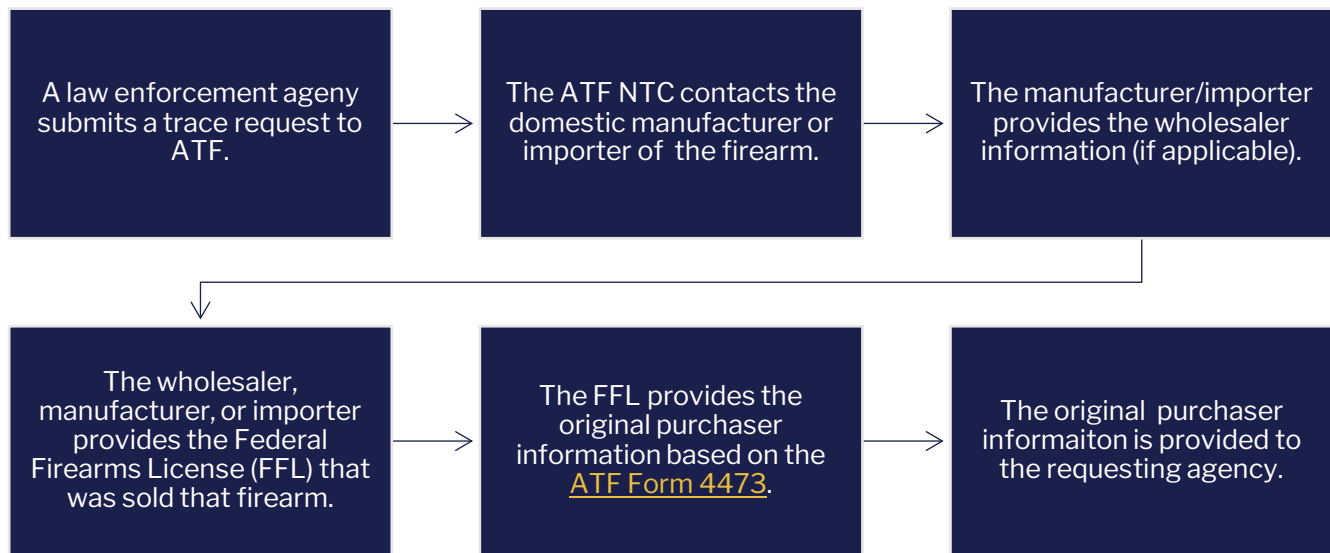


Figure 1. ATF Tracing Process

<sup>1</sup> <https://www.atf.gov/resource-center/fact-sheet/national-tracing-center>

<sup>2</sup> <https://www.atf.gov/sites/default/files/2026-01/eTrace%20Fact%20Sheet%20-%20FY24.pdf>

<sup>3</sup> <https://www.atf.gov/firearms/tools-services-law-enforcement/national-tracing-center>

### Trace Results

Once a trace is successfully completed, ATF provides the results to the requesting law enforcement agency via eTrace. These results reveal the initial retail purchaser of the firearm, the date and location of purchase, the recovery location, and whether it was part of a multiple sale (i.e., two or more handguns purchased from the same dealer on the same day or within five consecutive days). Trace results can also show the **“TIME TO CRIME”**, which is the number of days between when the gun was originally purchased and when it was recovered as a crime gun and traced by law enforcement.

### Leveraging Trace Results in an Investigation

Trace results are a critical tool for combating gun crime by providing valuable insight across multiple investigative areas. If needed, agencies can contact their local ATF office for assistance with exploring possible leads and indicators that may be made available by trace information. High-value investigative indicators may include:

- **Short time to crime**
- **Unique and distinct sources, such as several guns tracing back to the same retailer**
- **Multiple sales of identical handguns**
- **Multiple recoveries associated with the same buyer**

Reviewing trace results can help investigators identify:

- **Stolen Firearms:** Trace can help investigators identify unreported stolen firearms. In cases in which the victim lacked access to the serial number at the time of reporting, the firearm can be traced back to its original purchaser. While success becomes less likely when a firearm has changed hands many times, it still provides an additional avenue that can broaden an investigation.
- **Relationships:** eTrace data can support Social Network Analysis (SNA) by connecting firearm purchasers to firearm possessors. Mapping these relationships is key to identifying straw purchasers. When overlaid with other information, such as vehicles and associates related to an incident, tracing information can become an effective investigative tool for identifying individuals involved at various levels of crime gun activity.
- **Suspects:** A shorter time from purchase to law enforcement recovery of a firearm can strengthen investigative opportunities. Investigators may be able to obtain surveillance footage of the firearm purchase, observe who accompanied the purchaser, and identify potential co-conspirators. This information can be cross-referenced with additional surveillance systems and automated license plate readers (ALPRs) to enhance investigative leads.
- **Sources of Crime Guns:** Trace results also help identify FFLs whose firearms are frequently recovered by law enforcement. This information can support local agencies and ATF by identifying potentially problematic locations that may be sources of crime guns for prohibited individuals.

Agencies can also compare trace results with leads from the National Integrated Ballistics Information Network (NIBIN). NIBIN is a national network that facilitates the comparison of ballistic evidence, allowing shooting scenes to be linked to the same gun, even prior to a gun's recovery. Using NIBIN data in conjunction with trace results can determine the **"TIME TO FIRST SHOOTING"**, which is the number of days between when the firearm was originally purchased and when the firearm was first used in a shooting. While the time to crime could be years, the time to the first shooting may be only a few days. This would prompt interest in the purchaser of the firearm and any relationship they might have with the suspected shooter. Local law enforcement investigators, ATF, and intelligence analysts should all work together to further develop these cases.

### eTrace Access

Actively and comprehensively tracing firearms is critical for local law enforcement agencies. To establish an eTrace account for the agency, contact your [local ATF office](#) and request access to the platform. ATF will assign an account administrator who will be able to manage platform access within agency. Participating law enforcement agencies should also consider participating in additional services that ATF provides surrounding eTrace:

- **Collective Data Sharing (CDS)** provides the option to share trace data with other law enforcement agencies in the same state who have also elected to share trace data with other agencies. This is particularly beneficial when nearby jurisdictions share common crime issues and offenders who move seamlessly between jurisdictions. The eTrace account administrator for the agency can activate this option in the eTrace platform.
- **eTrace Direct** allows for the submission of trace requests and retrieval of trace results directly and securely between the agency's Record Management System (RMS) and the ATF NTC. This can help reduce the manpower and time necessary to trace every firearm manually. To initiate this process, agencies should contact their [local ATF office](#) for more information. It is important to note that for eTrace Direct to work effectively, the recovered firearms must be fully and correctly identified in the RMS. All officers should be trained in firearms identification for this purpose.

### Best Practices for Firearm Tracing

- Trace every recovered crime gun and review results for patterns or other indicators.
- The individual(s) responsible for submitting trace requests should have the firearm "in hand" and not rely on submitted paperwork. Consider Firearms Identification training and review our ["Firearms ID: Quick Reference Guide"](#) to ensure accurate, complete, and consistent documentation of crime guns.
- Fully debrief every suspect arrested in possession of a firearm and carefully document their statements and the circumstances of the firearm recovery, as these can be instrumental when building a case for prosecution.