## **Trace Analysis Provided in This Report**

This section briefly discusses the nature and uses of the trace analysis provided in this Report.

**Crime gun trace information.** This Report is based on 76,260 crime gun trace requests. Trace requests themselves include, when completely filled out by the submitting jurisdiction, information on the firearm type (semiautomatic pistol, revolver, etc.), the manufacturer and caliber of the recovered crime gun, the location where the crime gun was recovered, and the date of birth of the possessor of the crime gun. Crime gun traces that identify a retail transaction by Federal firearms licensees (FFL) permit the identification of the FFL that first sold the gun at retail and the source State of the firearm, and permit ATF to query the FFL regarding the first retail purchaser of the firearm. Crime gun traces that identify the first retail purchaser of the crime gun provide information on that first purchaser and permit calculation of a time-to-crime for the crime gun.

Varying availability of crime gun trace **data.** Certain kinds of information are available for each of these trace requests, while other kinds of information are available only for some trace requests. Most trace requests include the firearm type and manufacturer, but not all trace requests include the age of the crime gun's possessor. Not all trace requests result in the identification of an FFL. Even when an FFL is identified, the trace may not disclose information on the first retail purchaser. Therefore, different analyses in this Report are based on different numbers of crime guns. For a given jurisdiction, for instance, information on firearm type is essentially complete. Age of possessor information is less complete, and so analyses including possessor age will be based on a smaller number of crime guns. Time-tocrime information is still less complete, so analyses of, for instance, time-to-crime by age of possessor will be based on a still smaller number of crime guns.

The implementation of comprehensive **tracing.** In most police jurisdictions in the United States, crime gun trace requests have traditionally been made only in order to help law enforcement agencies solve specific crimes. The National Tracing Center's Firearms Tracing System (FTS) continues to serve this purpose. However, the 27 jurisdictions participating in YCGII, however, are committed to the goal of tracing all recovered crime guns, which allows for the support of trafficking enforcement and for new analyses of the criminal use of firearms and of trafficking patterns. Each of the participating jurisdictions has made major progress toward establishing and maintaining a program of comprehensive tracing. In some jurisdictions, the implementation of comprehensive tracing was not complete during the entire time period covered in this report. For instance, between August 1, 1997 and July 31, 1998, the FTS recorded 2,291 trace requests originating in Los Angeles. Officials familiar with Los Angeles report that this number is an undercount of the actual number of recovered crime guns, due to the fact that comprehensive tracing was implemented part way through this period. This Report still provides analyses for Los Angeles and certain other jurisdictions in a similar position because the crime gun trace requests submitted during this period are helpful in supporting law enforcement operations and examining trafficking patterns.

The analyses in this Report. Site-specific analyses. Most analyses in this report are site-specific: for example, information on the types of crime guns recovered; on the age of possessors; on time-to-crime for the top ten crime guns recovered from juveniles, youth, and adults. A standard package of such analyses is provided for each of the 27 participating sites in Part II of this Report.

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Limitations on combined analyses. The YCGII was not designed to provide a representative sample of the United States, or even of large urban jurisdictions. It clearly does not represent such a sample. Chicago, for instance, contributes 16,222, or about 21 percent, of the trace requests from all 27 jurisdictions. Because the total YCGII trace pool is not a representative national sample, certain analyses of the total pool are not appropriate. For example, in most of the sites, including Chicago, the leading source state for crime guns (based on traces providing source state information) is the State in which the site is located. The preponderance of traces from Chicago would therefore skew a combined analyses of the source state of crime guns toward Illinois. Other important dimensions, such as the types and manufacturers of most frequently recovered crime guns, vary substantially from site to site, suggesting that aggregate analysis would be misleading.

Selected combined analyses. Certain combined analyses are presented in this Report. For example, while the proportion of traces on which the possessor's age is known varies somewhat by jurisdiction, the distribution by possessor's age (where it is known) is fairly similar across all 27 jurisdictions. Thus, this Report describes the age distribution for traces from all 27 jurisdictions (see Figure 1). It also reports, for all 76,260 trace requests, on the proportion resulting in the identification of a first purchaser. For some categories, like crime guns with obliterated serial numbers, there appears to be complete and comprehensive data from some, but not all, YCGII jurisdictions. This Report presents the combined results for those jurisdictions with complete information as illustrative of the types of analyses that can be produced (see Figure 3).

The significance of time-to-crime. Time-tocrime is the time from initial retail sale of a firearm by an FFL to that firearm's recovery by law enforcement or the submission of a trace request. A short time-to-crime is considered an indicator of potential firearms trafficking. For investigative purposes, ATF presently considers a short time-to-crime to be three years or less. Because identifying information, such as the address of the original purchaser, is more likely still to be accurate and useful, traces of firearms with short time-to-crime can offer substantial investigative insight. However, time-to-crime can be an imperfect indicator of firearms trafficking. Newly purchased firearms can be stolen, for example; such a crime gun, if traced soon after the theft, would show a short time-tocrime. Similarly, older firearms can be sold used through FFLs or by private sellers and still be part of an illegal firearms trafficking enterprise. Traces of such firearms would not show short time-to-crime.

*Time to crime calculations.* The time-to-crime calculations in this Report are complicated by two ATF tracing practices. During the period covered in this Report, ATF did not initiate queries of manufacturers regarding traces of firearms manufactured before 1990 unless such an inquiry was specifically requested by a law enforcement management official (such a request might be made, for example, as part of the investigation of a particularly violent crime). However, the NTC queries its on-site Out-Of-Business records (records archived with the NTC by out-of- business FFLs) as a first step in conducting all traces. Some queries of the Out-Of-Business records produced full trace information on firearms manufactured before 1990. Thus, for the trace requests analyzed in this Report, timeto-crime can be calculated for some, but not all, trace requests associated with firearms sold before 1990. (Due to an increase in resources, the NTC is now able to initiate traces on all firearms manufactured prior to 1985.)

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Law enforcement uses of crime gun trace data. This Report does not specifically identify any FFLs or first purchasers to whom crime guns have been traced. Investigations incorporating such law enforcement-sensitive trace information are conducted by ATF, or by State and local law enforcement agencies in conjunction with ATF. Using FFL and first purchaser information combined with other

investigative information and trace analysis, State and local law enforcement agencies can work with ATF in focusing enforcement efforts on the most active traffickers in their local illegal markets. These departments can also focus on traffickers contributing to particular local violent crime problems, such as youth firearms violence, violent drug groups, and other issues of local concern.

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