

# Appendix B



# Technical Notes

## 1. Interpreting Information in National Tracing Center Records from Participating Jurisdictions

This note discusses limitations in using this information to compare one participating jurisdiction with another and to track the same jurisdiction from 1 year to the next.

The Youth Crime Gun Interdiction Initiative (YCGII) began in 1996. It is an emerging collaboration among Federal, State, and local law enforcement officials, ATF field offices, the ATF National Tracing Center, and ATF contractors from the academic community to improve enforcement of the Federal firearms laws, especially those relating to illegal firearms transfers to youth offenders, felons, juveniles, and other prohibited persons.

This is the third report published by ATF that uses information from trace requests submitted from YCGII jurisdictions to describe crime guns recovered by law enforcement agencies in those jurisdictions. This information improves the knowledge base for the enforcement of Federal and State firearm laws and regulations. It is, however, subject to several limitations. These arise out of three basic factors:

First, the program is undergoing constant change. The effort to achieve comprehensive tracing has not been fully realized. In 17 jurisdictions, this is the third year of this program; in 10 jurisdictions, this is the second full year of participation, and for 11 jurisdictions, this is the first full year of participation.

Second, the extent of program implementation varies from one jurisdiction to another based on each one's size, extent of agency computerization, information intake procedures, firearms-focused law enforcement activity, and the nature of its crime gun problem. At this stage of development, it is not appropriate to attempt to impose a single standard on all participating jurisdictions.

Third, the program is still developing. ATF and local law enforcement agencies are still learning from each other how to best implement this

program and to utilize the information obtained. This report and others to be produced by the Crime Gun Analysis Branch (CGAB) of the National Tracing Center are part of that developing process.

These factors result in data limitations, among them the following:

Some jurisdictions have not yet reported all their firearms for 1999. Changing law enforcement procedures to obtain all crime guns from all agencies does not happen immediately or consistently throughout a particular agency. In such jurisdictions, the lag in reporting recovered firearms to ATF will generate data on fewer firearms than law enforcement agencies actually recovered.

The data reported here reflects the behavior of law enforcement agencies whose policies and practices, including when and how firearms are recovered and how those recoveries are recorded, are changing in response to local attention to firearms crimes. These changes could increase or decrease the number of firearms trace requests made to the National Tracing Center.

Crime rates are changing. In some jurisdictions, like New York and Boston, the number of firearm related homicides and other crimes has dropped dramatically between 1996 and 1999. Changes in the number of trace requests could reflect changes in the number of crime guns that come to the attention of law enforcement agencies.

While the 38 participating jurisdictions represent a wide spectrum of American life, they do not represent a national sample of law enforcement agencies or crime guns recovered by law enforcement agencies. Participation in this program is voluntary, and jurisdictions included were not selected to be representative of the nation as a whole, rather they were included primarily because of a focus on youth gun crime. In 1999, however, 32 of the 38 jurisdictions had a population over 250,000. The population of these 32 jurisdictions repre-

sents more than two-thirds of the population of all U.S. cities combined with populations of 250,000 or more. This made it appropriate to generate summary data for these large cities as a group.

For these and other reasons, the available data from the participating jurisdictions does not yet constitute a fully developed statistical series from which reliable comparisons can be made from one reporting period to the next or from one participating jurisdiction to another. The data is used in this report as descriptive of the trace requests of particular jurisdictions during the past year. The nature of these limitations is similar to those initially encountered by the Federal Bureau of Investigation's *Uniform Crime Reports* program (UCR). Begun in the 1930's as a voluntary program by a few large jurisdictions, the UCR program has been developed over the past 70 years to include consistent definitions and standards, detailed reporting procedures, and nearly uniform participation by law enforcement agencies. The purpose of YCGII is to assist law enforcement by providing a detailed description of crime guns recovered in a given jurisdiction during the past year, and that is the most appropriate use of the data in this report.

## **2. National Analysis Based on 67 Percent of Cities with a Population of 250,000 or More**

This percentage is sufficient for this report to constitute a national report on crime guns in cities of this size. ATF is providing the analysis on a population basis in order to permit use of crime gun trace information in conjunction with the FBI's *Uniform Crime Reports*, which publish the crime statistics submitted by law enforcement agencies by size of the jurisdiction's population.

## **3. Determination of Comprehensive Tracing and the Decision to Generate City Reports.**

During the summer of 1999, the Crime Gun Analysis Branch (CGAB) sent a survey to the police chief of each YCGII city. Chiefs were asked how many guns had been recovered by

their departments during the first 6 months of 1999 and during the previous calendar year. About half of the cities responded. In instances where the survey data was available, CGAB judged that the city was tracing comprehensively if the number of guns traced from recoveries during the first half of the year was roughly equal to the number of gun recoveries claimed on the survey. Where no survey data was available, CGAB relied on historical trends, judgement, and the informed opinions of local agents who work with the city police departments. Cities are discussed below with an indication in parenthesis where survey data was used to determine comprehensive tracing status.

Ten cities were determined to be tracing more than 50 percent of their recovered crime guns but not tracing comprehensively. These include *Atlanta, GA* (survey); *Birmingham, AL* (survey); *Bridgeport, CT*; *Detroit, MI* (survey); *Houston, TX* (survey); *Louisville, KY*; *Las Vegas, NV*; *Los Angeles, CA* (survey); *Oakland, CA* (survey); and *Omaha, NE* (survey).

The Houston Field Division is in the process of establishing an electronic data recovery and conversion mechanism for retrieving crime gun data directly from the Houston Police Department data repository. The current data systems of the Houston Police Department are not compatible with the systems of ATF. Developing a programming linkage is a work in progress and completion is anticipated in the near future.

Law enforcement officials in *Denver/Aurora, CO* traced 100 percent of their recovered crime guns for Calendar Year 1999. Because a majority of these traces were not entered into the Firearms Tracing System (FTS) until early 2000, this data was not included in the analysis for this year's report. This data, another 2,003 trace requests, has been received and entered into the FTS. These data are now available for investigatory and planning purposes for law enforcement.

The *Phoenix, AZ* Police Department (survey) traced 100 percent of their recovered crime guns for Calendar Year 1999. Because a major-

ity of these traces were not entered into the FTS until early 2000, this data was not included in the analysis for this year's report. This data, another 2,212 trace requests, has been received and entered into the FTS. These data are now available for investigatory and planning purposes for law enforcement.

Five cities, *Denver/Aurora*, *Louisville*, *Las Vegas*, *Oakland*, and *Omaha*, took part in the program for the first time this year. In addition, the level of tracing in *Los Angeles*, *Oakland*, and *Salinas* may have been affected by the fact that California maintains a firearms registration system that allows local investigators to determine ownership of a gun.

*Salinas, CA* (survey) and *Seattle, WA* traced too few firearms to compile *City Reports* for these jurisdictions. As part of the partnership with the Salinas Police Department, ATF provided the Salinas Police Department with a computer loaded with the ATF Electronic Trace Submission System (ETSS) software, and Salinas provided a Community Service Officer to input all recovered firearms. As of October 2000, the Salinas Police Department had entered approximately 75 firearms for the year 2000. ATF anticipates that by next year the Salinas Police Department will significantly increase its tracing submissions. In Seattle, approximately 40 percent of recovered firearms were entered into the ETSS system. ATF anticipates that by next year Seattle trace submissions will be significantly increased.

ATF continues to work closely with police departments to facilitate and institute comprehensive tracing.

#### **4. Classification of Traces Based on Time and Geography**

In order to include all crime guns traced from each city during the calendar year period of this report, the Crime Gun Analysis Branch employed the following criteria. If the recovery date on the trace fell within 1999, the trace was included. If no recovery date was given, but the trace was received by the National Tracing Center during 1999, the trace was also included. A careful analysis of recovery State, recovery city, tracing agency ORI Code, tracing agency name, and tracing agency city was conducted to determine which traces were from recoveries in the 38 cities. The ORI code is used to identify law enforcement agencies in the Firearms Tracing System database. If the recovery city and State fields included either a known city name or the name of a known subunit of a YCGII city (for example Bronx, NY), the trace was included in the analysis. If no recovery city was given, but the tracing agency was identified as the YCGII city's main police department or an agency whose jurisdiction was only within the city, the trace was also included.

#### **5. Calculation of Percentages**

The tables and figures in this report were prepared using SPSS or Microsoft Excel software. We have chosen to report all percentages as these programs calculated them. It is occasionally possible, using a calculator or different software, to produce percentages that differ by as much as 0.1 percent from the reported percentages.

**6. Possessor's Age**

**Table B1: Age of Possessor from Figure 1**

Age	Frequency	Age	Frequency
10	15	46	495
11	22	47	425
12	46	48	426
13	131	49	363
14	309	50	298
15	609	51	259
16	1,032	52	257
17	1,626	53	214
18	2,086	54	200
19	2,204	55	204
20	2,138	56	187
21	1,985	57	212
22	1,946	58	322
23	1,780	59	141
24	1,699	60	159
25	1,422	61	95
26	1,286	62	144
27	1,301	63	114
28	1,262	64	92
29	1,071	65	76
30	895	66	126
31	842	67	83
32	778	68	64
33	804	69	110
34	805	70	55
35	787	71	65
36	839	72	40
37	722	73	47
38	751	74	39
39	706	75	30
40	622	76	28
41	573	77	37
42	541	78	25
43	597	79	26
44	472	80	21
45	452		

**7. Cumulative Percentage of Traced Guns by Time-to-Crime**

**Table B2: Data for Figure 5 and Figure 6 , Percentage of Traced Guns by Time-to-Crime**

Years	Frequency	Percent	Cumulative Percent
1	4,815	16.1	16.1
2	2,919	9.8	25.9
3	2,537	8.5	34.4
4	2,213	7.4	41.8
5	2,040	6.8	48.6
6	2,593	8.7	57.3
7	2,295	7.7	64.9
8	1,562	5.2	70.2
9	1,389	4.6	74.8
10	1,037	3.5	78.3
11	869	2.9	81.2
12	862	2.9	84.1
13	721	2.4	86.5
14	642	2.1	88.6
15	601	2.0	90.6
16	599	2.0	92.6
17	569	1.9	94.5
18	572	1.9	96.4
19	580	1.9	98.4
20	482	1.6	100.0

**8. Time-to-Crime Estimation Procedure**

To estimate the percentage of crime guns rapidly diverted from retail sale at federally licensed firearms dealers, ATF used the following method:

ATF arrived at a high-end estimate of the proportion of guns rapidly diverted to crime gun status by comparing the number of crime guns with a time-to-crime of less than 3 years, to the number of crime guns with a time-to-crime of more than 3 years, among the subset of the crime guns submitted for tracing that were traced to a purchaser and for which the date of purchase and the age of possessor was available. These methods of estimation produce a

high-end estimate of the proportion of guns diverted from the retail market because they do not include in the estimate any data from guns that were not traced because they were manufactured prior to 1969. They also do not include guns that could not be traced because they were sold by a manufacturer, wholesaler, or retail gun dealer more than 20 years ago and the records are no longer available. These 2 categories of firearms would clearly add to the number of guns with a time-to-crime of greater than 3 years. The analysis of time-to-crime by age of possessor using this estimation procedure is presented in the high-end estimate table below.

**Table B2.**

**Time-to-Crime: High End Estimates of The Percentage of Successfully Traced Crime Guns Rapidly Diverted from First Retail Sale at Federally Licensed Firearms Dealers**

Time-to-Crime	Juvenile		Youth		Adult		Row Totals	
	Percent	Number	Percent	Number	Percent	Number	Percent	Number
Less than 3 years	25.6	420	39.1	2,837	30.6	3,566	33.2	6,823
More than 3 years	74.4	1,222	60.9	4,421	69.4	8,097	66.8	13,740
Column Totals	100.0	1,642	100.0	7,258	100.0	11,663	100.0	20,563
Number of Missing Observations: 46,277								

ATF used two sets of procedures to develop low-end time-to-crime estimates for crime guns for which the age of possessor was known but for which the date of purchase was missing. First, all traces terminated because the guns in question were manufactured before 1990 were assumed to have a time-to-crime of greater than 3 years. Guns that were sold more than 20

years previously and were not traced because records on them were not any longer retained would also clearly add to the number of guns with a time to crime of greater than 3 years. The analysis of time-to-crime by age of possessor using these estimation procedures produces low-end estimates of time-to-crime. These estimates are presented below.

**Table B3**

**Time-to-Crime: Low End Estimates of  
The Percentage of Successfully Traced Crime Guns Rapidly Diverted  
from First Retail Sale at Federally Licensed Firearms Dealers**

<b>Time-to-Crime</b>	<b>Juvenile</b>		<b>Youth</b>		<b>Adult</b>		<b>Row Totals</b>	
	<b>Percent</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>
Less than 3 years	21.1	420	34.6	2,837	26.1	3,566	28.6	6,823
More than 3 years	78.9	1,572	65.4	5,351	73.9	10,081	71.4	17,004
Column Totals	100.0	1,992	100.0	8,188	100.0	13,647	100.0	23,827

Number of Missing Observations: 43,013



**9. Names of Firearms Manufacturers.**

The names of firearms manufacturers are typically abbreviated in the National Tracing Center's Firearms Tracing System and in the *Crime Gun Trace Reports*. The column on the left shows how the name of the manufacturer is shown in these reports. The column on the right shows the full name of the manufacturer. The list below is not a complete list of firearms manufacturers, only including references to manufacturers included and abbreviated in the *Crime Gun Trace Reports*.

A.A. Arms, Inc. ....	A A Arms Incorporated
Auto Ordnance .....	Auto-Ordnance Corp.
Beretta .....	Beretta S.p.A.
Beretta (FI Industries) .....	Beretta U.S.A. Corp.
Bersa .....	Bersa S.A.
Browning.....	Browning Arms Co.
Colt. ....	Colt's Mfg. Co., Inc
Davis Industries .....	Davis Industries, Inc.
FIE .....	Firearms Import & Export
FMAP .....	Fabrica Militar de Armas Portatiles
Haskell.....	Haskell Manufacturing
Heckler & Koch .....	Heckler & Koch G.m.b.H.
Heritage Manufacturing.....	Heritage Manufacturing, Inc.
Hi-Point .....	Hi-Point Firearms
IMI .....	Israeli Military Industries
Ithaca Gun Company .....	Ithaca Gun Company LLC
Iver Johnson.....	Iver Johnson Arms, Inc.
Izhevsky Mechanical Works.....	Imez (Izhevsky Mechanical Works)
Jager, Armi .....	Armi Jager
Keltec Industries, Incorporated.....	KEL-TEC CNC Industries, Inc.
Llama (Gabilondo & CIA) .....	Llama (Fabrinator)
Lorcin Engineering .....	Lorcin Engineering Co. Inc.
Maadi Co. (Helwan) .....	Maadi Company (Helwan)
Marlin .....	Marlin Firearms Co.
Maverick Arms .....	Maverick Arms, Inc.
Mossberg .....	O.F. Mossberg & Sons, Inc.
North China Industries .....	China North Industry Corp.
Phoenix Arms.....	Phoenix Arms Company
Remington Arms.....	Remington Arms Co., Inc.
Rohm .....	Rohm G.m.b.H.
Rossi .....	Rossi Firearms
Ruger .....	Sturm Ruger & Co. Inc.
Savage .....	Savage Arms, Inc.
Savage/Stevens.....	Savege Arms, Inc.
Stallard Arms .....	Stallard/Maverick
Star .....	Star, Bonifacio Echeverria S.A.
Tanfoglio .....	Fratelli Tangoglio S.r.l.
Taurus.....	Taurus Forjas S.A.
Walther .....	Walther G.m.b.H.

