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**BATF GUN TRACE DATA AND THE ROLE OF ORGANIZED
GUN TRAFFICKING IN SUPPLYING GUNS TO CRIMINALS**

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To what degree do criminals obtain their guns, directly or indirectly, as a result of the activities of large-scale organized gun traffickers? This paper reviews evidence bearing on this issue, along with an assessment of the value of gun tracing data for drawing conclusions about the importance of gun trafficking.

Any isolated instance of an unlawful transfer of a firearm could be technically regarded as "gun trafficking," and thus a person who on occasion has illegally sold a gun could technically be described as a "gun trafficker." However, this does not seem any more meaningful than describing a person who has privately sold their car to another private person as a "car dealer." Many criminals sell guns they happen to come across in the course of burglaries and other thefts, but they are not in the business of selling guns. A more meaningful definition of a gun trafficker would be a person who persistently engages in a significant number of illicit gun sales for the purpose of profit, however one might define "significant."

Two varieties of gun trafficking have been the focus of especially strong law enforcement interest: (1) sales by federally licensed dealers in violation of the law, typically involving unrecorded sales to persons whom the dealer knows, or should know, are not legally entitled to purchase guns ("corrupt dealers"), and (2) unlawful gun sales by persons not licensed to be in the business of selling guns ("illicit dealers"). The former would primarily acquire their guns via lawful purchases from gun distributors, while the latter might acquire them through many different routes, including gun thefts, purchases from gun thieves, direct purchases from licensed dealers, or indirect purchases from dealers via "strawman purchasers" who buy guns from dealers with the intention of turning them over to the illicit dealer. The second type would include interstate "gun runners" who buy guns through resident "straw purchasers" in jurisdictions with weaker gun controls and move them to jurisdictions with stronger controls. [Page 24]

The Bureau of Alcohol, Tobacco and Firearms (BATF), the agency charged with enforcing federal gun laws, has a vested interest in stressing the importance of these two varieties of organized gun trafficking, because they are the main channels of criminal gun acquisition that BATF is effectively organized to control. BATF can justify budget requests in the gun enforcement area to the extent that they can persuade policy-makers that the gun trafficking on which they

focus their efforts supplies a significant share of the guns used to commit crimes, and that reducing gun trafficking can therefore play a role in reducing violent crime. Likewise, "one-gun-a-month" laws that limit handgun sales to a single purchase per month are based on the theory that significant numbers of guns are supplied to criminals as a result of illicit gun dealers and their straw-purchaser associates acquiring large numbers of guns from licensed dealers. In particular, BATF enforcement efforts will appear sensible if there are significant numbers of large-volume organized traffickers, whether corrupt licensees or illicit dealers, since BATF does not have the resources to investigate every person involved in three or four unlawful gun sales a year. BATF therefore does its best to identify and arrest larger volume gun traffickers (BATF 1997a, p. 2), because focusing their scarce enforcement resources on "traffickers" who sell only a few guns each year would not be cost effective. As with law enforcement efforts against illicit drugs, the more dispersed the illicit movement of guns is, the less effective law enforcement efforts aimed at a small number of relatively high volume traffickers are likely to be.

In this light, it is not surprising that BATF reports routinely include anecdotal accounts, drawn from their investigative case files, of relatively high volume traffickers, accounts that hint, in the absence of any caveats to the contrary, that such dealers account for a significant share of the guns obtained by criminals and used to commit crimes (e.g., BATF 1990; 1995a; 1995b, pp. 18, 21, 22). Further, the Bureau has explicitly stated that, based on recent tracing studies, "a large proportion of crime guns recovered from juveniles, and adult felons, are most likely deliberately and illegally trafficked" (U.S. BATF 1999, p. 26). BATF has not committed itself as to what "a large proportion" might mean, but it clearly believes that gun traffickers supply a significant share of the guns used by criminals. To what extent is this view supported by systematic evidence?

GUN TRACING DATA AS EVIDENCE OF ORGANIZED GUN TRAFFICKING

The impression that gun trafficking accounts for a significant share of criminals' guns relies heavily on BATF analyses of guns for which traces have been requested, along with their investigative files on caught traffickers (US BATF 1995a; 1997a; 1999).

A gun trace typically starts with a request from a law enforcement agency requesting a trace on a gun that they have recovered from an arrested criminal. [Page 25] The originating agency provides BATF with the gun's manufacturer, model, and serial number, when available. BATF then asks the gun's manufacturer to whom they sold the gun; this buyer, typically a gun wholesaler/distributor, is asked to whom they sold the gun, which is thereby traced to a licensed retail gun dealer, and finally to the first retail purchaser, assuming all legally required forms have been completed and retained.

A trace by itself ordinarily cannot directly tell BATF how the gun got from its first retail purchaser to the criminal from whom the police recovered the gun. However, the information available to BATF from a successful trace can provide some weak, indirect clues as to how a traced crime gun might have traveled to the criminal. For example, if some kind of organized gun trafficking was involved, it is more likely that the gun was purchased in a state with weaker gun laws and then sold to a buyer in a state with stricter laws, where it is more likely that there are buyers willing to pay more than the normal retail price. Thus, it is more likely that a trafficked gun was first sold at retail in a state different from the one in which it was recovered by police, compared to guns acquired without the involvement of organized gun traffickers.

Likewise, since a trafficker cannot make money from unsold inventory, it is likely that a trafficked gun will be sold to a criminal user fairly soon after it was purchased by the trafficker. As a result, it is more likely to have a short "time-to-crime," i.e. a short span from its sale to a retail customer such as the trafficker or a straw purchaser acting on the trafficker's behalf to the time of its recovery by police. In recent reports, BATF analysts have explicitly inferred the involvement of "black market" dealers or illegal traffickers from the fact that many guns recovered from criminals were "quite new" and "rapidly diverted" from their first retail sales by licensed dealers (US BATF 1997a, p. 8; 1999, p. 8).

Finally, a trafficked gun is more likely to have had its serial numbers obliterated. BATF has flatly asserted that "crime guns with obliterated serial numbers are likely to have been illegally trafficked" (US BATF 1997a, p. 8), implying that a majority of such guns have been trafficked. If either a corrupt licensee or an unlicensed trafficker was involved in an unlawful sale of a gun, it is in their interest to remove the serial numbers from the gun. A licensee who has sold a gun out of his stock to an ineligible buyer knows that there is a record, which includes the gun's serial number, of the gun having been sold to him, and does not want a gun used in a crime being traced back to him. Likewise, an unlicensed trafficker who used straw purchasers to acquire guns for him would also not want a crime gun to be traceable to any of these criminal associates, for fear that they might lead the authorities to him. When the serial number is obliterated, it becomes much harder, though not impossible, to successfully trace a crime gun. [Page 26]

In sum, out-of-state origins, short time-to-crime, and an obliterated serial number are probably correlates of organized gun trafficking, i.e. a trafficked gun is probably more likely to have these attributes than a gun that was not trafficked. It would, however, be a logical error to reverse the logic and assume that a gun having one or more of these indicators is, or is likely to be, a trafficked gun. Of the three indicators, only an obliterated serial number is likely to be a fairly strong indicator of the involvement of gun traffickers in supplying the gun to criminals, because there are far more likely reasons, besides the involvement of trafficking, why a gun had either a short time-to-crime or out-of-state origins.

Short Time-to-Crime as an Indicator of the Involvement of Traffickers

Kennedy and his colleagues interpreted evidence concerning traced guns in Boston as indicating that guns that moved quickly from first retail sale to involvement in a crime "may be the product of . . . higher-volume trafficking" (1996b, p. 174). Nevertheless, one cannot legitimately infer from a short time-to-crime that gun trafficking was responsible for the movement of a gun to a criminal, since one cannot assume that guns have to be trafficked to get into criminals' hands quickly. Newer guns may be disproportionately common among the guns used by criminals simply because criminals are mostly young people (US FBI 1997, pp. 224-5) who have been of a gun-owning age for a relatively short time, and thus are likely to have acquired a gun only relatively recently (Kleck 1997, p. 373). Since most gun acquisitions are of new guns (Cook and Ludwig 1997, p. 24), this implies that most people who acquired a gun in the past few years, even if they did not get it from a gun trafficker, would be in possession of a "new" gun, i.e. one recently manufactured. Therefore, since nearly all young people who own guns acquired them relatively recently, a disproportionately large share of their guns will be fairly new, regardless of whether they were used for criminal or noncriminal purposes, and regardless of whether they were obtained from gun traffickers.

Consistent with this view, Kennedy and his colleagues (1996a) found that, among gun criminals in Boston during the period 1991-1995, the younger the criminal was, the more likely it was that the gun they used was relatively new. Among guns recovered by police and used to commit violent crimes, the share that were less than two years old was 23% for criminals age 21 or less, 16% among those age 22-29, and just 14% among those age 30 or older.

Another reason for the overrepresentation of newer guns among criminals is the larger supply of stolen guns to which they have access. Almost everyone prefers new guns over old ones, but normally only people who can afford the generally higher prices of new guns can act on this preference. Criminals, however, have access to a larger-than-average supply of stolen guns because they associate with other criminals, including those who steal guns. According to Wright and Rossi (1986, p. 233), criminals generally pay discounted prices [Page 27] for guns, a fact that these authors attributed to the large supply of stolen guns in criminals' milieu. In later surveys of juveniles, Sheley and Wright again found that "cash prices paid on the street were clearly much less than the normal retail price" (1995, p. 50). Since the new guns among the stock of stolen weapons are generally available at a less-than-retail price, criminals can more frequently act on the preference for new guns.

Out-of-State Origins as an Indicator that a Gun Was Trafficked

Kennedy and his colleagues also suggested that, under the assumption that "interstate gun trafficking requires at least a modicum of organization and

capital," a large share of out-of-state guns among crime guns supports a view that "higher volume trafficking" is supplying guns to criminals (1996b, p. 174). It would, however, be misleading to reverse the logic and infer from the fact that a gun used in a crime in one state was first sold at retail in another state that organized gun traffickers were responsible for the movement of the gun across state lines.

Instead, a large share of interstate gun movement is a routine by-product of gun owners changing their state of residence. From 1985 to 1990, 9.4% of the US population moved their residence across state lines (US Bureau of the Census 1994, p. 19). Since they moved their possessions with them, it means that any guns stolen from cross-state migrants, used in a crime, recovered by police and then traced by BATF would show up as "out-of-state" guns, even if none of them had been moved as a result of gun trafficking.

If gun ownership is as common among movers as among nonmovers, then about 9.4% of the civilian gun stock of 236 million or more guns (Kleck 1997, p. 97) also moves across state lines in any five year period, or at least 22 million guns. Over a longer period of time, a still larger share of guns would be moved across state lines, even without any involvement of gun traffickers. For example, if a different 9.4% of the gun-owning population moved their residences across state lines every five years, a majority of the US gun stock would be moved across state lines in just 30 years, less than half of a human lifetime.

Further, because urban residents are especially mobile (US Bureau of the Census 1994), guns owned by people in the cities where most gun crimes are committed (US FBI 1998, p. 201), and most gun traces therefore originate, are especially likely to have different-state origins as a routine byproduct of people changing their residence. Likewise, criminals are disproportionately young adults (US FBI 1998, p. 232) and young adults are especially mobile (US Bureau of the Census 1997), so criminals are especially likely to have changed their residence at some time in their lives. Thus, such criminals would move their possessions, including any guns in their possession, across state lines. If they later used the guns in crimes, the guns were recovered by police, and the guns were traced by BATF, they would indeed show up as out- [Page 28] of-state guns, but not because of the involvement of any interstate gun traffickers. In this case, the mobility of the guns' criminal owners themselves would be responsible for the interstate movement of the guns.

Consequently, even though trafficked guns probably are more likely to have the aforementioned attributes, the share of crime guns that have out-of-state origins, like the share that had a short time-to-crime, should not be viewed as even a rough indicator of the frequency of involvement of interstate gun traffickers in the movement of guns.

EVIDENCE CONCERNING A STRONGER INDICATOR OF TRAFFICKING INVOLVEMENT - OBLITERATED SERIAL NUMBERS

Out-of-state origins and short time-to-crime of crime guns are weak indicators that the guns were trafficked, because there are other common reasons for crime guns to have these attributes that have nothing to do with gun trafficking. On the other hand, another indicator is somewhat stronger because there is less likely to be a nontrafficking explanation for its presence. If the serial number on a crime gun has been obliterated, one likely explanation is that a person involved in gun trafficking removed the serial number to make it harder to trace the gun back to him or to confederates such as persons making straw purchases on his behalf (Kennedy et al. 1996b). But since this is not the only reason a gun might have an obliterated serial number, even this is not an ironclad indicator that a gun has been trafficked. As Kennedy et al. (1996b, pp. 174-5) noted, not all such guns were necessarily trafficked, since burglars who stole a gun might also obliterate serial numbers to avoid being tied to the burglary through possession of an object whose serial number had been reported to the police.

One would expect that if traffickers operated in significant numbers anywhere, it would be in cities with unusually strict local or state gun regulations. In other places, since lawful gun ownership is widespread, a large pool of stolen guns is likely to be circulating among criminals, driving down prices of illicit guns and reducing profit opportunities for illicit dealers.

Thus, cities such as New York City, Boston, and Washington, D.C. should be upper-limit test cases - one would expect gun traffickers to account for a larger share of crime guns there than almost anywhere else. In New York City, handgun possession is effectively banned (Kleck 1991, pp. 354-6). Among 7,136 handguns recovered by New York City police in August 1, 1997 to July 31, 1998, 1,115, or 15.6%, had partially or completely obliterated serial numbers (US BATF 1999, pp. 42-3). Kennedy and his colleagues (1996a) analyzed 3,543 crime guns recovered by Boston police in 1992-1995, and found that only 7% of guns used to commit violent crimes (by offenders of all ages) had obliterated serial numbers. Thus, even in a city subject to unusually strict gun laws, where opportunities for gun traffickers to profit should be at [Page 29] their maximum, probably less than 7% of crime guns recovered by policed showed some solid indication of having been trafficked.

Another such upper-limit case would be Washington, DC, where handgun possession or purchase is prohibited. Of 1,771 firearms recovered by Washington police in 1992, including those linked to gun possession cases, only 121, or 6.8% had obliterated serial numbers (US BATF 1992, p. 21). Again, even in a city with extremely strict local gun laws, only a small share of crime guns showed any solid indications of having been trafficked. Presumably, in cities with less stringent laws, and thus less local demand for trafficked guns, the share of guns that would show signs of having been trafficked would be even lower.

THE UNREPRESENTATIVE CHARACTER OF SAMPLES OF TRACED GUNS

Independent of whether these various trace-linked pieces of information tell us anything about the involvement of gun traffickers in supplying guns to criminals, data on traced guns cannot provide a reliable picture of guns used to commit crimes, because samples of guns submitted by law enforcement agencies for tracing by BATF are not a representative sample of guns used in crime, while guns that are successfully traced are even less representative. Trace samples therefore cannot be used to infer how crime guns in general are acquired by criminals, where criminals get guns, what share of crime guns had out-of-state origins, or what share of crime guns had been manufactured within any given period in the past.

In fact, even BATF itself has never claimed in its written reports that samples of traced guns are representative of crime guns in general. Quite the contrary, their reports sometimes include caveats, albeit somewhat weak, vague ones, to the effect that gun traces are done for law enforcement purposes and not for "statistical" (i.e. research) purposes.

There are only two ways one can select a set of guns to study in order to draw generalizable conclusions about crime guns in general. The analyst either (1) studies all the guns used in crime, or (2) systematically applies probability sampling procedures to choose a representative subset of crime guns. Police do not follow either method in selecting guns to be traced. Clearly, all crime guns are not traced - less than 2% of guns linked with crimes known to the police are ever submitted for tracing (Kleck 1997, p. 112). Further, this tiny share of crime guns is obviously not selected randomly. The Congressional Research Service flatly concluded that "the firearms selected for tracing do not constitute a random sample and cannot be considered representative of the larger universe of all firearms used by criminals, or of any subset of the universe" (US Congressional Research Service 1992, p. 65).

Put precisely, there is no formal basis for expecting traced guns to be representative of all crime guns. It would simply be a lucky coincidence if the subset of guns nonrandomly selected for tracing looked the same as the entire [Page 30] population of crime guns. Instead, traced gun samples primarily reflect the kinds of guns that law enforcement personnel want to trace and that BATF is able to trace, not the kinds of guns used in crime.

THE POTENTIAL FOR EXAGGERATED INDICATIONS OF TRAFFICKING IN TRACED GUN SAMPLES

Table 1 presents hypothetical data illustrating how much potential there is for bias in traced gun samples, given how small a share of crime guns are traced.

	All Guns	Time-to-crime under 3 yrs.	First sold at retail out of state	Trafficked
All crime guns	10,000	1,000 (10%)	3,000 (30%)	300 (3%)
Traced guns	200	120 (60%)	160 (80%)	100 (50%)

In these hypothetical data, only 10% of crime guns had a short time-to-crime, only 30% came from a state other than the one in which they were recovered by police, and only 3% were trafficked. Yet, analysis of the 2% of guns that were traced would lead one to believe that 60% of guns had a short time-to-crime, 80% came from out of state, and 50% were trafficked. Merely as a result of a disproportionate police preference for tracing certain kinds of guns, it is possible for traced gun samples to give a radically misleading picture of crime guns.

The unrepresentativeness of samples of traced guns is, however, more than just a hypothetical mathematical possibility. By comparing samples of traced guns with the full set of all guns recovered by police, it has been shown that trace samples are not in fact representative of crime guns from general. For example, traced gun samples grossly overstate the share of crime guns that are "assault weapons." About 8.2% of BATF-traced guns from 1986 to 1990 were "assault weapons," even though only about 1.8% of all the guns recovered by police are these types of guns (Kleck 1997, p. 112).

The Exaggeration of the "New Guns" Share of Crime Guns

Samples of successfully traced guns also necessarily overstate the share of crime guns that had a short time-to-crime, i.e. were "new guns," simply because BATF is rarely able to successfully trace older guns. Guns produced prior to October of 1968 "are generally untraceable" (US BATF 1999, p. 19) [Page 31] because the record-keeping provisions of the federal Gun Control Act of 1968 were not in effect before then. Further, even with respect to many guns manufactured after 1968, the BATF National Tracing Center's "policy was not to trace firearms manufactured before 1990, unless specifically requested by a law enforcement management official" (p. 19). The older the gun is, the more likely it is that gun dealers, distributors, or manufacturers linked with the gun either went out of business (and did not pass on their complete records to BATF) or could not provide adequate records for the tracing process to be completed (US BATF 1995b; 1997a).

Among guns recovered by police in 17 cities from 1996-1997, trace requests were submitted on 36,777 guns, but only 13,493, or 37% of the trace requests resulted in a successful trace of the gun to its point of first retail sale. Of the 63% (n=23,284) of the trace requests that were unsuccessful, 53.7% (n=12,510) were due to "firearm determined to be too old to trace" (computed from data in US

BATF 1997a). Thus, 34% of all guns submitted for tracing could not be traced because they were too old. By excluding almost all of the older guns, samples of guns for which traces were completed by BATF exaggerate the share of "crime guns" that are relatively new. Further, because older guns are known to be poor candidates for tracing success, it is reasonable to expect that police would be less likely to even request a trace on such guns. Thus, even samples of guns requested for tracing are likely to overstate the share of crime guns that are relatively new, and thereby artificially inflate the impression of the involvement of traffickers.

The Exaggeration of the Out-of-state Share of Crime Guns

One reason that police request gun traces is because they want to discover whether guns are being trafficked into their jurisdiction, and to stop such trafficking. Indeed, BATF has explicitly promoted gun tracing as a crucial element in the investigation of gun trafficking, in connection with such BATF sponsored efforts such as Project Lead (US BATF 1995b, p. 13). Likewise, BATF's Youth Crime Gun Interdiction Initiative involved the study of "illegal youth firearms markets" through the analysis of gun tracing data (US BATF 1997a).

As a result, police are especially likely to be interested in the origins of crime guns that they already suspect were supplied to criminals by organized gun traffickers, such as guns that they know or believe came from out of state. When a crime gun in fact did come from another state, police will often have a strong reason to suspect its out-of-state origins even before requesting a trace, because when they recover crime guns, it is usually in connection with the arrest of the criminal who possessed the gun. In 1997-1998, in New York City, a known possessor was identified in trace requests for 85.9% of the crime guns for which police requested traces (US BATF 1999, p. 29), indicating that the recovery of the gun was probably associated with the arrest of a [Page 32] suspect. Very likely there were still other cases where a suspect was arrested, but not recorded on the trace request form.

If an arrested suspect has an out-of-state driver's license, or tells the police that he is from out-of-state, or tells them that he obtained the gun from someone else he believed had obtained the gun from another state, this is good reason for police to believe that the suspect's gun came from another state. As a result, police are able, as well as motivated, to disproportionately request traces on out-of-state guns, however infrequently they may come across them, causing them to be overrepresented in both samples of guns for which traces were requested and in samples of successfully traced guns. Indeed, since requesting a trace on a gun is optional for police, if police wanted to request traces only on guns that they had reason to believe came from out-of-state, or those that appeared to be new, there would normally be nothing to prevent them from doing so, even if such guns claimed only a tiny share of crime guns.

There is another reason out-of-state guns will be overrepresented in trace samples, one that is likely to be particularly important in states with gun registration laws. Such states, which include New York, New Jersey, Massachusetts, Hawaii, Connecticut, California, Maryland, Indiana, Michigan, and Pennsylvania (US Bureau of Justice Statistics 1996b), are more likely to have statewide records of their own concerning handguns purchased within that state and possessed by that state's residents. For police agencies in such states, a much more direct tracing procedure is to check their own registration records first, then turn to BATF for tracing attempts only on those guns not traceable using their own state records (Roth and Koper 1997, p. 83). Since the guns with in-state origins can often be traced using the state's own registration records, the guns for which a trace request was submitted to BATF from agencies in these states would be disproportionately out-of-state guns, i.e. those that could not be traced with instate records.

This implies, first of all, that the out-of-state share of BATF-traced guns cannot be used to infer the share of all crime guns that came from out of state, but it also implies that the overrepresentation of out-of-state guns will be more pronounced specifically in states with stricter guns laws, which are more likely to have their own handgun registration systems, such as New York, than in states with less strict laws and thus without state registration records, such as Virginia. BATF tracing data can therefore give an exaggerated impression that interstate gun trafficking is heaviest into states with stricter gun laws, since these states are more likely to have their own registration systems that can trace the origins of crime guns with instate origins. Therefore, the percent of traced guns with out-of-state origins cannot be meaningfully compared across states, assuming that one is attempting to draw conclusions pertaining to crime guns in general rather than just the handful that are traced. [Page 33]

GUNS LINKED WITH "FIREARMS OFFENSES" VS. GUNS USED TO COMMIT VIOLENT CRIMES

Another problem with gun trace samples is that most of the guns traced by BATF are not "crime guns" in the sense that they were used to commit violent crimes like murder, rape, robbery, or assault, and guns that are used in violent crimes are different from the rest of the guns in trace samples. Guns linked with violent crimes accounted for only 14.7% of all guns in the US for which traces were requested in fiscal year 1996-1997 (Pierce, Briggs, and Carlson 1998, p. 9). In contrast, 66.8% of the guns for which traces were requested were linked only with "firearms offenses" such as unlawful possession or carrying of a firearm, while the rest were linked with a variety of nonviolent crimes. Because BATF analyses of traced guns almost never exclude guns linked only to firearms offenses, it is impossible to draw conclusions about guns actually used to commit violent crimes, even within samples of traced guns, since the patterns discovered among traced guns largely reflect patterns prevailing among guns linked with gun law violations.

This would be a trivial matter were it not for the fact that guns linked only with weapons law violations do not look like guns used to commit violent crimes. Unlike violent crimes committed with guns, "firearms offenses" such as unlicensed carrying of a firearm in a public place are victimless crimes, *i.e.* they do not involve a direct, unwilling victim. Thus, there is almost never a victim connected to a "firearms offense" who serves as a complainant bringing the crime to the attention of the police and who might demand that something be done about it. Instead, enforcement of firearm laws is commonly initiated by police, and thus it is to a great extent a matter of police discretion when, where and how often firearms laws are enforced (Kleck 1991, pp. 347-353). Consequently, the character of the guns for which traces are requested in connection with "firearms offenses" is heavily influenced by police enforcement priorities and preferences. Since the bulk of trace requests and completed traces are for guns linked with "firearms offenses," this means that the character of general samples of trace-requested guns and successfully traced guns is heavily influenced by these priorities and preferences.

Since illicit gun trafficking is itself one major "firearms offense," samples of guns for which traces are requested can be heavily affected by investigations of gun trafficking, investigations that are initiated by police at their discretion. Consequently, it is possible for a large share, a majority, or even all of *trace-requested* guns in a given jurisdiction to be trafficked guns, even if only a tiny share of all guns used to commit crimes in that jurisdiction were trafficked, simply because police chose to focus their enforcement activities on traffickers.

Guns actually used to commit violent crimes appear to be much less likely to have been trafficked than guns recovered by police in connection with [Page 34] firearms offenses. Table 2 shows data compiled from the report by Kennedy and his colleagues (1996a) concerning guns recovered from suspects in Boston age 21 and younger. The data consistently indicate that indicators of gun trafficking are less prevalent among guns used to commit violent crimes than among those linked only with gun law violations.

Table 2. Traced Guns Linked with Gun Possession vs. Traced Guns Used to Commit Violent Crimes, Boston, 1991-1995

	Gun Possession	Violent Crimes
% with obliterated serial numbers	20.3	11.4
% with out-of-state origins	67.8	58.3
% one year old or less	17.5	11.3

Source: Kennedy et al. 1996a; computed from data in Exhibits 25, 26, 42, 43, and 45.

Thus, general samples of traced guns, because they are dominated by guns linked only with gun possession cases, will exaggerate the apparently trafficked share of

guns used to commit violent crimes. For this reason, one cannot legitimately draw conclusions about the significance of organized gun trafficking in supplying violent criminals with guns using general samples of traced guns if the samples are not confined to guns used to commit violent crimes.

THE SMALL SHARE OF CRIME GUNS TRACED AND THE POTENTIAL FOR SAMPLE BIAS

Table 3 below illustrates for New York City how few guns used to commit violent crimes are successfully traced, and the potential for distortion there is in using trace data to draw conclusions about guns used in crime.[Page 35]

Table 3. New York City Violent Gun Crimes and Traces, 1996

Panel A. The Small Share of Crime Guns Traced (guns linked with homicide, rape, robbery or aggravated assault)

	Number	% of Total
All gun crimes, reported to police or not[1]	74,911	100.0
Gun crimes known to police[2]	31,163	41.6
Gun crimes cleared by an arrest[3]	11,012	14.7
Gun crimes on which a trace was requested[4]	2,111	2.8
Gun crimes for which a trace was completed[5]	490	0.7

Panel B. Potential for Distortion in the NYC Trace Data [6]

	Total	Out-of-state	% Out-of-state
All violent crime guns	74,911	14,982	20.57%
Traced violent crime guns	490	425	86.74%

1. NCVS data indicate that 41.6% of violent crimes are reported to police (US Bureau of Justice Statistics 1997b, p. 84). $31,163 \text{ gun crimes reported to police} / 0.416 = 74,911$.

2. US FBI 1997, pp. 18, 29, 32, 139; assumes 10% of rapes were committed by offenders armed with a gun.

3. US FBI 1997, p. 205, using arrest clearance rates for cities with populations of 1 million or more as estimates of NYC clearance rates; assumes clearance rates are the same for gun crimes as for non-gun crimes.

4. US BATF 1997a, p. 8 of New York City section: 1,759 trace requests linked with homicide, sex crimes, robbery, or assaults/threats for 10 month period of July 1, 1996-April 30, 1997. Multiplied by 12/10 to adjust number up to 12-month figure.

5. US BATF 1997a, p. 9 of New York City section: 23.23% of NYC trace requests were completed. $2,111 \times 0.2323 = 490$.

6. Assumes that 2.84% of out-of-state guns were traced, and that among traced guns linked with the four violent crimes, 86.74% were from out-of-state, as is the case in actual BATF data (US BATF 1997a, p. 13).

Panel A shows that less than 1% of violent crimes committed with a gun in New York City in 1996 resulted in a successful gun trace, i.e. a trace that could establish the state in which the gun was first sold at retail. This extremely low percentage is largely due to the fact that most such crimes are not reported to the police, and most of those reported are not cleared by the arrest of an [Page 36] offender, and thus not likely to result in recovery of the gun used to commit the crime.

However, it is also clear that New York City police did not request a trace in connection with the vast majority of cleared gun crimes, even though all police departments, including the New York City police department, participating in the 17-community Youth Crime Gun Interdiction Initiative (YCGII) during this period had "agreed to trace all crime guns recovered in their jurisdiction" during the 10-month study period (US BATF 1997a, p. 3 of Introduction; emphasis in original). In a later report BATF stated that "the effort to achieve comprehensive tracing has not been fully institutionalized" (US BATF 1999, p. A-1), apparently an admission that police departments were not in fact requesting traces on all crime guns recovered in their jurisdictions. As a result, the YCGII samples of guns are subject to the same problems with police selection biases that afflicted the samples in previous BATF trace studies, such as a preference for requesting traces on newer guns and on guns believed or known to have out-of-state origins.

In Panel B, one would conclude, if one relied on data pertaining to traced guns, that 86.74% of NYC crime guns came from out-of-state, just as BATF trace data indeed indicated (US BATF 1997a, p. 13), even though the reality assumed in this statistical exercise was that only 20% of all violent crime guns came from outside of New York State.

A somewhat larger share of guns used to commit homicides are traced, but the share is, excluding cities participating in the YCGII, nevertheless still quite small. BATF completed traces on only 698 handguns linked with homicides committed in New York State in 1993-1996 (Andrews 1998), even though there were 7,339 murders and non-negligent manslaughters known to the police for this period, 68.6% of them committed with guns, and 62.0% of them committed with handguns (US FBI 1994-1997). Thus, although there were about 4,552 handgun homicides ($7,339 \times 0.620$), just 698 of the handguns used, or 15.3%, resulted in a successful BATF trace. Of these 698, 604 were traced to out-of-state first retail sales (Andrews 1998, p. 2). If police chose to request BATF traces almost exclusively on guns for which there was already some indication of out-of-state origins, perhaps because BATF traces were unnecessary for guns already successfully traced using New York state handgun registration records, guns from non New York sources could claim as little as 13.3% ($604/4,552$) of homicide handguns in New York State. One would expect at least this large an out-of-state

share solely as a byproduct of people moving their residence to New York from other states, so this result would be perfectly consistent with the admittedly extreme position that there was no interstate gun trafficking into New York at all.[Page 37]

ESTIMATES OF THE SHARE OF CRIMINALS' GUNS THAT WERE TRAFFICKED

Neither the BATF nor anyone else has been able to document that guns trafficked by organized illegal dealers (interstate or otherwise) account for more than a tiny share of crime guns. BATF data on out-of-state gun origins and time-to-crime indicate nothing definitive about the share of crime guns that were trafficked. The only BATF information bearing directly on this question are data on the number of guns known to have been handled by prosecuted gun traffickers (US BATF 1995a; 1997b).

Establishing the trafficked share of guns obtained by criminals requires an estimate of the total volume of guns going to criminals. Interviews with incarcerated criminals indicate that 23-32% of handguns obtained by criminals were acquired by theft (Burr 1977; Wright and Rossi 1986). We have estimated that at least 750,000 guns are stolen each year, all of which, by definition, go directly into the hands of criminals. Therefore, a rough estimate of the total number of guns acquired by criminals each year would be 2.3-3.3 million ($750,000/0.32 = 2.3$ million; $750,000/0.23 = 3.3$ million).

On the other hand, the total number of guns trafficked by persons arrested by BATF and recommended for prosecution in fiscal years 1996 and 1997 averaged just 43,000 per year (US BATF 1997b). Even generously assuming that all of the trafficked guns went to criminals, which is unlikely, and that all the guns were sold in a single year, these guns would constitute only 1.3-1.9% of the guns obtained by criminals. Thus, identified gun traffickers account for less than 2% of guns obtained by criminals, even if one accepts the more conservative 2.3 million estimate of the total number of guns obtained by criminals.

Uncaught traffickers also account for a share of criminals' guns, so the total trafficking share would be higher if one included the guns they traffic. Likewise, BATF investigations probably do not uncover all of the guns trafficked by those they catch. Nevertheless, even tripling the share claimed by caught traffickers to account for these guns would still lead to the conclusion that less than 6% of the guns obtained by criminals involved organized gun trafficking. In any case, a claim that gun traffickers account for more than one or two percent of the flow of guns into criminal hands would have to rely on a heavy dose of speculation.

Further, there is no evidence that any of the few criminals who obtained guns as a result of the activities of traffickers could not have obtained guns from other sources. Quite the contrary - surveys of criminals indicates that they usually have

access to multiple sources of guns (Wright and Rossi 1986; Sheley and Wright 1995). Therefore, the number of criminals who could get guns only if traffickers operated in their area is necessarily even smaller than the number who actually do acquire guns as a result of trafficking activity. [Page 38]

BATF CASE FILE EVIDENCE ON HIGH VOLUME TRAFFICKERS

Few of the criminals prosecuted for "trafficking," however, operate on a big scale. Although BATF's stated, and quite sensible, goal is "recommending for prosecution the most active illegal firearms traffickers" (US BATF 1998, p. 16), the average number of firearms known to have been trafficked per gun trafficking defendant was just 20 in fiscal years 1996 and 1997, and even these few guns were, in many cases, trafficked over a period of several years (US BATF 1998, p. 17). Thus, BATF denoted "traffickers" are mostly very low volume operators. Traffickers not recommended for prosecution, or not investigated at all by BATF, almost certainly averaged even fewer guns.

BATF's 1994 Firearms Enforcement Investigative Report (US BATF 1995a), a report detailing BATF's most significant firearms investigative achievements, listed only five cases, among those resulting in arrests in 1993, that involved 100 or more trafficked guns, and just three such cases among those resulting in arrest in 1994 (pp. 29, 37, 48, 50-52, 61). Thus, although it is strongly motivated to do so, BATF rarely uncovers large-scale gun traffickers. Unless BATF is almost completely ineffective in identifying and prosecuting such criminals, high-volume gun traffickers would appear to be extremely rare, even using a generous definition of "high-volume."

Pierce and his colleagues have suggested that licensed dealers to whom many crime guns have been traced, with a short average time-to-crime for the traced guns, might "warrant the allocation of [BATF] investigatory resources," presumably because such persons are more likely to be corrupt dealers (p. 13). Their analysis of two years' worth of BATF traces indicated that just 110 dealers (0.1% of the dealers) accounted for 19.9% of traces and had an average time-to-crime of less than three years (p. 18). The authors' discussion is likely to have lead some readers to infer that this concentration of traced crime guns among dealers implies that a significant share of crime guns are supplied by corrupt dealers (p. 13).

Such an inference would be unwarranted. Such concentrations would result, even in the complete absence of corrupt licensees, from nothing more than the simple fact that crime is very unevenly distributed across space, with a small number of areas accounting for a large share of gun crimes. Licensees operating in a relatively small number of high crime areas would account for a disproportionately large share of crime guns and gun traces even if all of their sales were properly recorded transfers to legally eligible recipients. Thus, the

concentration of gun traces among licensed dealers indicates nothing about the prevalence of corrupt dealers.

THEFT AS THE MAJOR ULTIMATE SOURCE OF CRIME GUNS

Given the weak evidence supporting the hypothesis that significant numbers of criminals obtain their guns as a result of gun traffickers' activities, [Page 39] the question remains: how do criminals get their guns? In the Wright and Rossi survey of state prison inmates, only 3% of felons who had owned handguns prior to their incarceration reported getting their most recent handgun from a "black market" source, though another 14% said they got the gun on "the street," a phrase that could encompass some organized gun traffickers (1986, p. 183). In the 1991 Survey of State Prison Inmates, the Census Bureau reported that 28% of inmates who had ever possessed a handgun had acquired their most recent handgun from "the black market," from a drug dealer, or "off the street" (US Bureau of Justice Statistics 1993, p. 19). Unfortunately, the report lumped these three sources together, so it was impossible to determine the share of handguns solely attributable to persons whom the felons believed made their living from selling guns.

There appears to be stronger evidence pointing to theft as a major source of guns for criminals than illicit trafficking. Perhaps about half of the guns obtained by criminals have probably been stolen at some time in the past, though not necessarily by the criminal who most recently possessed it and used it in a crime. Among the felons interviewed by Wright and Rossi (1986) in prison, about 32% of their most recently acquired handguns were obtained by the felon by stealing the gun himself. Further, taking into account the felons' knowledge about gun thefts by previous possessors, 46% stated that their most recently acquired handgun was "definitely stolen" (a set of felons that presumably includes the 32% who stole the gun themselves), while another 24% said the gun was "probably stolen" (Wright and Rossi 1986, pp. 185, 193-197).

The most common method for obtaining handguns was by a cash purchase - 43% of the felons got their most recent handgun this way. Few of these buyers, however, purchased the gun from a black market dealer, since only 3% of all handgun-owning felons reported getting a gun from such a source. A significant minority, 16%, of all such felons bought their handgun from a retail outlet, presumably a licensed dealer. While some of these might have been purchased from corrupt dealers (the survey did not establish this), many of them could have been obtained in perfectly legal transactions because the buyer had no criminal convictions in his record at the time, or because there was no state criminal records background check required for a gun purchase.

Based on surveys of juveniles in 1991, Sheley and Wright (1995) stated that it was "highly likely that theft and burglary were the ultimate source of many (perhaps most) of the guns possessed by juveniles in our study, but only

occasionally the proximate source" (p. 48). Almost half of juvenile inmates reported that they had stolen a gun at some time in their lives (Sheley and Wright 1993, p. 6). The authors concluded that the proximate sources of guns were most commonly "family, friends, and street sources" (Sheley and Wright 1995, p. 46). Unfortunately, they did not report how many of the "street sources" might have been illicit gun dealers. A few (7%) juveniles claimed to [Page 40] have purchased their most recent handgun from a retail outlet (Sheley and Wright 1993, p. 6), even though it is unlawful for licensed dealers to sell handguns to persons under the age of 21. These may, however, have been cases where the juvenile got an adult to buy the gun for them at a store, since 32% of all of the juvenile inmates reported that they had asked an adult (most commonly a friend) to make a purchase at a retail outlet on their behalf (Sheley and Wright 1995, p. 48).

The general picture from surveys of criminals is that they get guns from many diverse sources, but only a few via purchase from a licensed dealer. Unrecorded purchases from various relatives, friends, and acquaintances who are not in the business of selling guns are probably the primary means of directly obtaining guns, while theft may be the ultimate source of most crime guns.

It would be helpful if there were reliable national law enforcement data on gun theft, but unfortunately there are not. The FBI's National Crime Information Center (NCIC) maintains records of gun thefts, but apparently only a tiny share of thefts are reported to this agency. For example, in a sample of 66 guns determined by BATF to have been stolen, not a single one had been reported stolen to NCIC (Brill 1977, p. 102). Brill concluded that some police did not report thefts to NCIC that had been reported to them, but that "a more significant problem is that it is likely that a firearm theft never will be reported to the police. Someone who has not had to register the firearm, or who has ignored a request to register it, is not likely to report its theft" (p. 103).

The best source of information on the volume of gun theft is the *National Crime Victimization Survey*, a large-scale household survey of the population conducted by the US Census Bureau. Based on this source, there are an estimated 341,000 incidents of gun theft in the US each year (US Bureau of Justice Statistics 1994), while data from another Justice Department-financed survey indicated about 2.2 guns stolen per incident (Cook and Ludwig 1997, p. 30). These figures imply about 750,000 guns stolen from households each year. This is probably a conservative estimate for two reasons: it does not adjust for *NCVS* respondents who fail to report gun thefts to government interviewers (e.g. thefts of guns obtained illegally or without proper registration), and 2.2 guns stolen per theft incident seems to be a low figure in light of the fact that there are an average of about 5 guns per gun-owning household in the US (Kleck 1997, p. 69). Thus, even a conservative estimate of the national gun theft total indicates that there is a huge flow of guns into criminal hands via theft.

Given that there could be as few as 100,000-200,000, and probably no more than 500,000, different guns used to commit crimes each year (Kleck 1997, p. 92), an annual total of 750,000 stolen guns means that a single year's worth of gun thefts from the existing civilian gun stock would be sufficient all [Page 41] by itself to easily meet all criminal demand for guns to use in crime, even if no further guns were manufactured, sold to criminals or indirectly supplied to them through non-theft means such as illicit gun trafficking.

An ample supply of stolen guns would tend to depress black market gun prices and make it hard to make a profit through illicit gun dealing. This would be especially true for illicit dealers who obtained guns by using straw purchasers in states with less strict gun laws to buy guns at full retail price. To make a profit after paying fees to the straw purchasers and covering transportation and other costs, such dealers would have to charge prices substantially higher than retail price. Only in areas where it was hard for a criminal to obtain guns legally via their own purchase, by theft, or by purchase of a stolen gun would there be significant numbers of customers willing to pay prices substantially over retail.

The level of gun theft, of course, is not uniform across the US, so in areas with lower gun ownership rates, the gun theft rate is also probably lower. Thus, there may well be unusual areas, such as New York City, Washington, DC, or Boston, where the supply of legally owned guns and stolen guns circulating among criminals is low enough to leave room for criminal entrepreneurs to make a living selling guns illegally. Such areas, however, would seem to be the exception rather than the rule, in light of the high national gun theft level.

A survey of adult prisoners conducted by the US Census Bureau (1993) provided a deviant result regarding theft as a means of gun acquisition among criminals. Only 9% of the prisoners in this survey admitted having stolen the last gun they had acquired before going to prison (p. 19). This theft share is implausibly low for adult offenders, when compared either to the 32% figure obtained by Wright and Rossi (1986, p. 185) or to the 24% figure obtained by Burr (1977).

It is also implausible when assessed in light of the known volume of gun theft. If one accepted the 9% figure, it would necessarily imply that the total number of guns acquired by criminals was 11.1 (100%/9%) times the number they stole. With a conservative estimate of 750,000 guns stolen annually, this would imply at least 8.3 million guns acquired by criminals by all methods each year, about 7.6 million of them (91%) obtained by non-theft means. In the entire US, among criminals and non-criminals combined, there are only about 5 million new guns purchased in a typical year (Kleck 1997, p. 97). Since 64% of gun acquisitions are of new guns (Cook and Ludwig 1996, p. 25), this means that there are only about 7.8 million (5 million/0.64) total guns, new or used, acquired by the US population each year. It therefore is implausible that criminals alone acquire 7.6 million guns by non-theft means each year. Since the Census Bureau survey's 9% theft figure necessarily implies this implausible figure, it cannot be accepted. It

may be that prisoners [Page 42] are unwilling to admit previous thefts when speaking to interviewers working for the federal government.

CONCLUSIONS

Based on the evidence currently available, organized high-volume gun trafficking appears to account for a few percent of the guns acquired by criminals, and this modest flow of guns may well be largely concentrated in only a few cities with unusually strict gun control, such as New York City, Washington, DC, and Boston. Criminals do not typically get guns from people in the business (even the part-time business) of illegally selling guns, but rather buy them from family, friends, and acquaintances, or steal them, while about 16% of adult criminals obtain their guns via a purchase from a licensed retail dealer (Wright and Rossi 1986, p. 185).

Equally important, surveys of gun criminals have consistently indicated that, among both adults and juveniles, multiple sources of guns were typically available to any one offender. For example, data from a survey by Sheley and Wright (1995) of juvenile inmates indicated that an average of three sources of guns were identified as certain or probable sources from which the offenders could obtain guns (computed from data on p. 47). These authors noted that "most respondents felt there were numerous ways that they might obtain a firearm" (p. 46). Thus, shutting down one source would not imply a given criminal would be unable to acquire a gun. In reply to the question "Where do criminals get their guns?," one reasonable response would be: "everywhere." The sources of guns are numerous, diverse, and diffuse, a state of affairs that should not be surprising in a nation with over 240 million guns circulating in private hands (Kleck 1997, p. 97), at least 750,000 of which are stolen each year.

Criminals obtain guns, then, primarily by way of unrecorded, one-at-a-time transfers, some legal, some not, from people not in the illegal gun trafficking business. A prototypical chain of possession of a gun that eventually is used to commit a crime, consistent with existing evidence, would be as follows: a gun is produced by a licensed manufacturer, who sells it to a licensed distributor, who sells it to a legitimate licensed retail gun dealer, who then sells it to a legally qualified buyer. At some later point in time, perhaps after a few sales or trades among private parties, the gun is stolen, most commonly from the residence of its owner, by a burglar who (perhaps illegally) sells it to a friend, who later (perhaps after a few more unrecorded private transfers) commits a crime with it.

As far as one can tell from the admittedly limited evidence currently available, organized trafficking of guns, whether intrastate or interstate, whether from the Southeast to the urban Northeast or elsewhere, accounts for no more than a tiny share of the guns obtained by criminals. Consequently, enforcement efforts aimed at locating high volume dealers appear to be [Page 43] directed at individuals who

are rare (and non-existent in many places), easily replaced, and not especially important as criminal gun

suppliers in any but a handful of unusual locales. On the other hand, enforcement efforts aimed at the far more numerous (and even more easily replaced) individuals who occasionally sell small numbers of guns are not cost effective. This suggests that the supply-side strategy in gun control needs to be reconsidered, just as its counterpart in drug control is being reconsidered.[Page 44]

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