Journal of Criminal Law and Criminology

Volume 104
Issue 4 *Symposium On Guns In America*

Article 2

Fall 2015

Some Sources Of Crime Guns In Chicago: Dirty Dealers, Straw Purchasers, And Traffickers

Philip J Cook

Richard J. Harris

Jens Ludwig

Harold A. Pollack

0091-4169/15/10404-0717
THE JOURNAL OF CRIMINAL LAW & CRIMINOLOGY Vol. 104, No. 4
 Printed in U.S.A.

SOME SOURCES OF CRIME GUNS IN CHICAGO: DIRTY DEALERS, STRAW PURCHASERS, AND TRAFFICKERS

PHILIP J. COOK*

RICHARD J. HARRIS**

JENS LUDWIG*** &

HAROLD A. POLLACK****

In this Article, we seek to help guide law enforcement activities targeting gun acquisition by high-risk people by examining two potentially important sources of crime guns: licensed retail dealers and traffickers. Limited data availability is a key reason more is not currently known about how criminals obtain guns. This Article assembles a unique dataset that combines five years (2009–2013) of crime gun trace requests submitted to the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) National Tracing Center (NTC) by the Chicago Police Department (CPD), linked to other CPD data sources about the person who was caught with the gun. From these data, we are able to identify which of the violators are or have been gang members and to compare their guns with those of violators who are not gang members. We focus in particular on how gang members obtain guns, since this population is at the highest risk for shooting someone and for being shot. We hypothesize that gang members may differ from others in how they access guns. This hypothesis could help explain why our earlier work found that the underground gun market as a whole in

* ITT/Terry Sanford Professor of Public Policy; Professor of Economics and Sociology, Duke University. Research Associate, National Bureau of Economic Research.

** Research Specialist, University of Chicago Crime Lab.

*** McCormick Foundation Professor of Social Service Administration, Law, and, Public Policy in the School of Social Service Administration and Chicago Harris School of Public Policy, University of Chicago. Director of the University of Chicago Crime Lab. Research Associate, National Bureau of Economic Research.

**** Helen Ross Professor in the School of Social Service Administration, University of Chicago. Co-director of the University of Chicago Crime Lab.

Chicago is characterized by high transaction costs that keep many criminals from becoming armed, yet the vast majority of the city's homicides are committed with guns. Our first finding is that the guns confiscated by the police from gang members tend to be quite old—a median age of over ten years—with every indication that they have gone through a series of transactions before being acquired by the current owner. It is very rare for these guns to be purchased new from a gun dealer in a documented sale (occurring in less than 2% of circumstances). Besides the age of the guns, the most striking fact about gang guns is that most come from out of state. Even for new guns, fully 60% are imported. It appears that while licensed dealers may play some small direct role in arming gang members, other intermediaries are far more important. If enforcement is to be effective at reducing access to guns by gang members, a likely focus is on the intermediaries in the underground market—straw purchasers, brokers, and traffickers. Gathering information on these intermediaries will require interviews with the violators in addition to further analysis of trace data.

TABLE OF CONTENTS

INTRODUCTION[1]

In 2011, nearly half a million people were the victims of gun crime in the United States, according to data from the National Crime Victimization Survey (NCVS).[2] The annual social cost of gun violence in America may be on the order of $100 billion per year;[3] these harms are concentrated disproportionately in America's largest urban areas that are home to some of society's most economically and socially vulnerable members.[4] For example, in the City of Chicago, the study site for this Article, the homicide rate has averaged from sixteen to eighteen per one hundred thousand people in recent years—about three times the national average.[5] This citywide rate masks large and persistent geographic differences. Some communities experience zero homicides in a typical year; meanwhile, some of the most

[1] This Article was prepared for a special symposium entitled *Guns in America* organized by the *Journal of Criminal Law and Criminology* at Northwestern University School of Law. The work reported on here was supported by operating grants to the University of Chicago from the MacArthur and McCormick foundations, as well as project grants from the Joyce and McCormick foundations and the Fund for a Safer Future. Our thanks to Roseanna Ander, Mark Jones, Susan Parker, Dan Rosenbaum, and Matthew Smith for valuable assistance and comments, and to the Chicago Police Department for making the crime-gun trace data analyzed in this paper available to our team. We also thank the *Journal* staff, particularly Carolyn Hill, Sarah Halbach, Cristina Law, Abigail Leinsdorf, Bobby Murphy, and Vanessa Szalapski for their assistance in preparing this article for publication. Any errors and all opinions are of course our own.

[2] *Gun Violence*, NAT'L INST. OF JUSTICE, http://www.nij.gov/topics/crime/gun-violence/Pages/welcome.aspx (last modified Apr. 4, 2013), *archived at* http://perma.cc/8L3U-R2TU.

[3] PHILIP J. COOK & JENS LUDWIG, GUN VIOLENCE: THE REAL COSTS 11 (2000).

[4] *See* ALEXIA COOPER & ERICA L. SMITH, BUREAU OF JUSTICE STATISTICS, U.S. DEP'T OF JUSTICE, HOMICIDE TRENDS IN THE UNITED STATES, 1980–2008, at 29 (2011), *available at* http://www.bjs.gov/content/pub/pdf/htus8008.pdf, *archived at* http://perma.cc/QA5Y-QM2A; *see also* CARMEN DENAVAS-WALT ET AL., U.S. CENSUS BUREAU, INCOME, POVERTY, AND HEALTH INSURANCE COVERAGE IN THE UNITED STATES: 2012, at 14 (2013), http://www.census.gov/prod/2013pubs/p60-245.pdf, *archived at* http://perma.cc/3Q5Y-ENS5.

[5] The homicide rates for the United States and Chicago specifically equaled 4.7 and 18.5 in 2012, 4.7 and 15.9 in 2011, and 4.8 and 16.0 in 2010 (all rates per 100,000 people). *See* FED. BUREAU OF INVESTIGATION, U.S. DEP'T OF JUSTICE, UNIFORM CRIME REPORTING STATISTICS, http://www.ucrdatatool.gov/Search/Crime/Crime.cfm (last visited May 29, 2014), *archived at* http://perma.cc/7Z2X-T96T (for the national homicide rate, follow "All States and U.S. Total," then follow "One year of data," then under "a. Choose one or more states" select "United States – Total," and under "b. Choose one or more variable groups" select "Number of violent crimes," and under "c. Choose one year" select either "2012," "2011," or "2010" and follow "Get Table"; for the Chicago homicide rate, follow "Larger Agencies," then follow "One year of data," then select "Cities 1,000,000 or over" and follow "Next," then under "a. Choose one or more agencies" select "IL – Chicago Police Dept," and under "b. Choose one or more variable groups" select "Number of violent crimes," and under "c. Choose one year" select "2012," "2011," or "2010" and follow "Get Table").

violent neighborhoods experience homicide rates of thirty to ninety per one hundred thousand people.[6]

Gun involvement greatly enhances the social costs of violent crime by enhancing the lethality of interpersonal violence: gun assaults are over thirteen times more lethal than criminal attacks involving knives,[7] and much more lethal still compared to attacks in which no weapon is used at all.[8] One indication of the relative lethality of guns compared to other weapons commonly used in violent crime is their overrepresentation in homicides (68% nationwide), compared to robberies (41%) or aggravated assaults (21%).[9] There is considerable evidence that the heightened "case fatality rate" for gun attacks is partly due to the ease of killing with a gun (compared to a knife or club), rather than to difference in the assailant's intent.[10]

---

[6] The homicide rates in 2011 and 2012 were 30.5 and 36.5 per 100,000 people in the Austin neighborhood on Chicago's west side, 91.3 and 59.2 in the south-side Englewood neighborhood, and 53.9 and 77.0 in Woodlawn, the neighborhood directly south of the University of Chicago's Hyde Park campus. *Crimes – 2001 to Present*, CITY OF CHI. DATA PORTAL, https://data.cityofchicago.org/Public-Safety/Crimes-2001-to-present/ijzp-q8t2 (last visited Aug. 30, 2014), *archived at* http://perma.cc/C37B-4MQT (data calculated using Stata analysis package); *City of Chicago Census 2010 and 2000*, CITY OF CHICAGO, http://www.cityofchicago.org/content/dam/city/depts/zlup/Zoning_Main_Page/Publications/Census_2010_Community_Area_Profiles/Census_2010_and_2000_CA_Populations.pdf (last visited Aug. 30, 2014), *archived at* http://perma.cc/8A8L-MBPV.

[7] This statistic is based on an original computation utilizing online data from the U.S. Centers for Disease Control and addresses homicide and assault data from 2011. *See* NAT'L CTR. FOR INJURY PREVENTION AND CONTROL, CTRS. FOR DISEASE CONTROL AND PREVENTION, FATAL INJURY REPORTS, NATIONAL AND REGIONAL, 1999–2011, http://webappa.cdc.gov/sasweb/ncipc/mortrate10_us.html (accessed July 3, 2014), *archived at* http://perma.cc/N93J-Y228. We find that there were 11,522 deaths classified as "homicide and legal intervention" caused by firearm, and that there were 1,797 deaths in this category caused by "cut/pierce." *Id.* We find that there were 55,544 injuries classified as "assault – all" caused by firearm, and 135,525 nonfatal injuries in this category caused by "cut-pierce." *See* NAT'L CTR. FOR INJURY PREVENTION AND CONTROL, CTRS. FOR DISEASE CONTROL AND PREVENTION, NONFATAL INJURY REPORTS, 2001–2011, http://webappa.cdc.gov/sasweb/ncipc/mortrate10_us.html (accessed July 3, 2014), *archived at* http://perma.cc/KK9C-CNVW. All of these injuries were treated in an emergency department. *Id.* The case fatality rate for firearm assaults is then computed as 11,522/(11,522 + 55,544)=17.18%. The case fatality rate for "cut/pierce" assaults is computed as 1,797/(1,797 + 135,525)=1.31%. The ratio of these two results is 17.18/1.31=13.1.

[8] JEFFREY A. ROTH, NAT'L INST. OF JUSTICE, U.S. DEP'T OF JUSTICE, FIREARMS AND VIOLENCE 1 (Feb. 1994), https://www.ncjrs.gov/pdffiles1/Digitization/145533NCJRS.pdf, *available at* http://perma.cc/8Z25-7NB3.

[9] COOK & LUDWIG, *supra* note 2.

[10] On the lethality of firearms, see Philip J. Cook, *The Technology of Personal Violence*, 14 CRIME & JUST. 1, 13–14 (1991); Frank Zimring, *Is Gun Control Likely to Reduce Violent Killing?*, 35 U. CHI. L. REV. 721, 724–25 (1968); Franklin E. Zimring, *The Medium Is the*

The greater availability of guns in America provides one possible explanation for a striking pattern. Overall U.S. rates of violent crime are similar to those of other developed nations.[11] Yet U.S. homicide rates are many times the median rate among thirty-six industrialized nations.[12] This difference suggests that reducing gun involvement in criminal violence would greatly reduce the social costs of the problem, even if the overall volume of interpersonal violence were unchanged. In short, guns do not necessarily cause violence, but their use in violence increases the likelihood of death.

For the most part, the policy debate in the United States around gun violence has focused on the regulation of firearm transactions, possession, and use—"gun control." The chance of more stringent legislation in this area at the federal level or in Illinois seems low for the foreseeable future. In fact, recent judicial decisions by the U.S. Supreme Court and the Seventh Circuit have gone in the other direction. The Supreme Court required Chicago to allow residents to keep handguns in their homes,[13] while the Seventh Circuit mandated that Illinois permit concealed carrying of firearms.[14] Which local firearm regulations will ultimately be deemed constitutionally permissible is somewhat hard to predict at present.

So what can be done? One answer is enforcement of existing regulations. Federal enforcement of firearms regulations and prohibitions is the responsibility of the U.S. Department of Justice through the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF).[15] Most enforcement of laws regarding the criminal use of guns is the responsibility of local and

---

Message: Firearm Caliber as a Determinant of Death from Assault, 1 J. LEGAL STUD. 97, 97 (1972); see also Philip J. Cook, *The Case of the Missing Victims: Gunshot Woundings in the National Crime Survey*, 1 J. QUANTITATIVE CRIMINOLOGY 91 (1985); Philip J. Cook & Jens Ludwig, *Aiming for Evidence-Based Gun Policy*, 25 J. POL'Y ANALYSIS & MGMT. 691 (2006).

[11] FRANKLIN E. ZIMRING & GORDON HAWKINS, CRIME IS NOT THE PROBLEM: LETHAL VIOLENCE IN AMERICA 3 (1997).

[12] *OECD Better Life Index: Safety*, ORG. FOR ECON. COOPERATION & DEV., http://www.oecdbetterlifeindex.org/topics/safety/ (last visited Sept. 11, 2014), *archived at* http://perma.cc/4XY2-M35F; *see* David Hemenway & Matthew Miller, *Firearm Availability and Homicide Rates Across 26 High-Income Countries*, 49 J. TRAUMA, INJ., INFECTION, & CRITICAL CARE 985, 986 (2000).

[13] McDonald v. City of Chicago, 561 U.S. 742 (2010).

[14] Moore v. Madigan, 702 F.3d 933, 934, 942 (7th Cir. 2012).

[15] BUREAU OF ALCOHOL, TOBACCO, FIREARMS & EXPLOSIVES, U.S. DEP'T OF JUSTICE, ATF NATIONAL FIREARMS ACT HANDBOOK 3 (2009), https://www.atf.gov/files/publications/download/p/atf-p-5320-8/atf-p-5320-8.pdf, *archived at* http://perma.cc/5RBM-ECQC.

state police departments.[16] As in all areas of policing, departments have discretion in setting strategic and tactical priorities in this area and appear to differ greatly in what they do and how they do it.[17] Regardless, a key limiting factor in shaping enforcement activities is money. General fund revenues for U.S. cities declined for six straight years from 2007 to 2012.[18] Even in better fiscal times, the resources available for supporting enforcement activities are finite.[19] Scarce funding means that it is important for local policymakers to focus enforcement activities on those tactics and strategies that generate the largest social good per dollar spent, which in turn requires guidance from the best available data and empirical evidence.

In this Article, we seek to help guide enforcement activities intended to reduce gang members' access to guns by investigating two potentially important sources—licensed retail dealers and traffickers. Our primary data set for this investigation utilizes firearms trace data, which merges information on the original sources of guns confiscated by the Chicago Police Department (CPD) with criminal history data on those who were arrested in conjunction with the confiscation. More specifically, this data set consists of crime gun trace requests submitted to ATF's National Tracing Center (NTC) by the CPD over the course of a five-year period (2009–2013), which our team then linked to other CPD administrative data sources about the person who was caught with the gun—including their prior criminal history and any gang affiliation.

These data on each person caught with a crime gun, including that person's identified gang affiliation, are particularly important to help answer a puzzle raised by some of our previous work. In our 2007 article *Underground Gun Markets*, we found evidence that guns are surprisingly difficult to obtain in the underground gun market in Chicago.[20] This evidence includes substantial price markups for guns on the street relative

---

[16] *See generally* John E. Eck & Edward R. Maguire, *Have Changes in Policing Reduced Violent Crime? An Assessment of the Evidence*, *in* THE CRIME DROP IN AMERICA 207–65 (Alfred Blumstein & Joel Wallman eds., 2000). This chapter describes the wide range of policing strategies that different departments across the United States adopted over the course of the 1990s.

[17] *Id.*

[18] MICHAEL A. PAGANO & CHRISTIANA MCFARLAND, NAT'L LEAGUE OF CITIES, RESEARCH BRIEF ON AMERICA'S CITIES: CITY FISCAL CONDITIONS IN 2013, at 2 (2013), http://www.nlc.org/Documents/Find%20City%20Solutions/Research%20Innovation/Finance/Final_CFC2013.pdf, *archived at* http://perma.cc/HSB8-VCMV.

[19] *See* OFFICE OF CMTY. ORIENTED POLICING SERVS., U.S. DEP'T OF JUSTICE, THE IMPACT OF THE ECONOMIC DOWNTURN ON AMERICAN POLICE AGENCIES 2 (2011), *available at* http://www.cops.usdoj.gov/files/RIC/Publications/e101113406_Economic%20Impact.pdf, *archived at* http://perma.cc/3NLJ-R7D5.

[20] Philip J. Cook et al., *Underground Gun Markets*, 117 ECON. J. F588, F590 (2007).

to the purchase price in legal transactions, substantial legal or physical risk and delays for criminals in their attempts to get a gun, and the existence of a system of retail brokers who charge a fee to facilitate exchanges between gun buyers and sellers.[21] Yet despite the difficulty for most people in getting guns on the streets, roughly four in five homicides in Chicago are committed with guns.[22] One way to reconcile this apparent contradiction is the hypothesis that those people at highest risk for involvement in shootings—in Chicago, mostly gang members—have more ready access to guns than does the average delinquent or criminal.

"Dirty dealers"—that is, dealers who intentionally violate the law—appear to account for a small share of all crime guns that wind up in the hands of gang members. Guns carried by gang members tend to be quite old—over ten years old on average—and to have changed hands many times. Direct, well-documented sales of guns by dealers to gang members account for less than 2% of the total. Of course, dealers may be supplying gang members through other types of transactions that are not observable using trace data: straw purchases, undocumented sales, transactions involving used guns, or theft. We do not find much evidence for large-scale illegal diversion of inventory by gun dealers. Our data do provide suggestive evidence, however, that when gang members are carrying new guns, those guns are relatively likely to come from a "straw purchase," in which someone (often assumed to be a girlfriend or wife) buys a gun on behalf of someone else who is legally prohibited from owning a gun. We also find that gun trafficking may be a more important source of guns to gang members than to other gun violators.

We find that only a small percentage of crime guns were directly obtained new from a Federal Firearms License (FFL) dealer in a documented sale.[23] This pattern holds true for crime guns confiscated from gang members as well as non-gang members. One challenge with

---

[21] *Id.* at F594–96.

[22] CHI. POLICE DEP'T, CHICAGO MURDER ANALYSIS 25 (2011), https://portal.chicagopolice.org/portal/page/portal/ClearPath/News/Statistical%20Reports/Murder%20Reports/MA11.pdf, *archived at* http://perma.cc/8XM3-NCUM. From 1991 to 2011, the percent of homicides commited by shooting ranged from 69.0% to 83.4%. The previous ten years of available data (2002–2011) show that 78.98% of Chicago's homicides are committed with firearms. *Id.*

[23] Sales of used guns by FFLs cannot be identified from trace data. The rules governing transactions by FFLs are not affected by whether the gun is new or used. Yet the normal trace process only reaches the first sale. This process follows the supply chain using the serial number of the gun to the point of a first-sale 4473. There is no way to determine whether the gun was sold again by an FFL, let alone by which FFL.

estimating this percentage from administrative data sources is matching individually-identifying information in the ATF crime-gun trace data to CPD arrest records and other data sources, given the presence of data entry errors and missing data. We use probabilistic match techniques and estimate that 11% of adults acquired their crime guns new from an FFL dealer in a documented sale. This estimate is quite close to a comparable estimate (11.4%) based on the most recent national survey of adult prisoners, which was conducted in 2004.[24]

We also find that relatively few crime guns wind up in the hands of gangs because of illegal diversions of inventory by FFL dealers, at least as best as we can tell in our data. We use our dataset to calculate the share of crime guns that could be traced back to an identified FFL dealer but for which the paperwork kept by the FFL dealer was not available. We use this as a proxy for off-the-books transactions, such as selling inventory illegally out the back door; such transactions account for 5% of guns associated with gang members, almost identical to the share of guns taken from violators who are not in gangs.

Straw purchases seem to be a more important source of crime guns to gangs compared to other types of dealer sales. As one indication of the volume of straw purchases, we estimate that 15% of new guns that were sold within two years of confiscation and were taken from male gang members were first sold to a woman. Our data provide no direct way to tell how often dealers knew or suspected that a given sale was a straw purchase.

For enforcement purposes, a major concern is the possibility that gang members get their guns directly from "dirty dealers," that is, FFL dealers who are willing to violate the law by selling guns to people who should not be legally allowed to have them—including by looking the other way during a straw purchase. One indication for whether this is happening would be that guns found in the hands of gang members should come from a smaller set of FFL dealers compared to what we see for crime guns found among non-gang members. We do see one locale where there is somewhat greater dealer concentration for gang than non-gang guns: among guns first sold in Cook County,[25] the three most common dealers account for 76% of guns recovered from gang members and 65% of guns recovered from others. But for guns first sold in other Illinois counties or out of the state, the pattern is reversed.

---

[24] *See* Daniel W. Webster et al., *Preventing the Diversion of Guns to Criminals Through Effective Firearm Sales Laws*, *in* REDUCING GUN VIOLENCE IN AMERICA 109, 110 (Daniel W. Webster & Jon S. Vernick, eds., 2013) (discussing the most recent Survey of Inmates in State Correctional Facilities from 2004).

[25] Cook County is Illinois's most populous county and contains the City of Chicago.

Most gang guns come from central or southern Illinois, or another state (especially Indiana), even more so than what we see among crime guns found among non-gang members. Interestingly, Indiana sources are more prominent for new guns than older guns, suggesting that they are more likely to be trafficked directly.[26] We also find that compared to crime guns taken from people not in a gang, a higher share of crime guns from gang members have obliterated serial numbers (5.4% vs. 3.4%), one indicator of trafficking.

One clear conclusion is that most guns taken from gang members in Chicago pass through the hands of at least one intermediary—a third party that helped the gun move from dealer to gang member. This result suggests the potential value of investigations focused on those in the underground gun market who help put guns into the hands of violent street gangs.

Another conclusion from our findings is that enforcement efforts to reduce gang member access to guns are not futile. Crime guns tend to be remarkably old in Chicago, with an average age of 12.6 years (median of 10.4), and in fact are older for gang members than non-gang members (a median of 11.6 versus 6.9 years). Since criminals are widely reported to prefer newer guns, this is one indication that barriers exist to getting guns in the underground gun market even for gang members, consistent with the findings in *Underground Gun Markets*.[27] We also find some indication that gun violators are likely to have been in possession of a particular gun for a relatively brief period of time, which also supports the basic premise of enforcement efforts that try to reduce gun access to high-risk people.

The remainder of this Article is organized as follows. Part I provides a review of existing federal, state, and local law that governs firearms transactions in Chicago, as well as what is currently known about the underground gun market in Chicago and more generally. Part II describes the data we analyze in this Article. Part III reports our results for the role that FFL dealer sales play among the crime guns confiscated from gang members and non-gang members, while Part IV reports what our data can tell us about gun trafficking, which we define as importing guns into Chicago for illicit distribution in the informal or underground market. The Conclusion discusses the limitations of the data sources and analyses

---

[26] In principle, some of what appears to be trafficking in these data could instead be the result of people buying guns in some other state, then moving to Chicago and having their gun stolen. But, as we demonstrate below, theft from new immigrants cannot plausibly account for any but a trivial portion of the total flow of guns from Indiana.

[27] Cook et al., *supra* note 20.

presented here and potential implications for law enforcement and crime policy more generally.

I. GUN TRANSACTIONS, LICIT AND ILLICIT

Gun commerce is primarily regulated by the federal Gun Control Act of 1968,[28] which stipulates that those in the business of manufacturing, importing, or selling guns must have a federal license.[29] Only those with federal licenses may receive direct shipments of guns.[30] It is safe to say that almost all guns in private hands were sold new by a licensed dealer. Federal regulations require that before an FFL may transfer a gun to a customer, the customer must show identification and fill out a 4473 form that states that he or she is not disqualified from owning a gun due to a felony conviction or one of nine other conditions.[31] State regulations may also apply, and FFL dealers are obligated to follow them.[32] The dealer conducts a background check through the state or federal system to confirm lack of disqualification, and then transfers the gun.[33] The dealer is required to keep the 4473 form on file and to show it to federal investigators when asked.[34] When a dealer goes out of business, these forms are to be shipped for storage in an ATF warehouse.[35]

Guns are consumer durables. The original buyer may transfer the gun to someone else by sale, loan, gift, or rental arrangement—or lose it, perhaps to theft. In some cases, resales are through a licensed gun dealer, who must again follow federal rules governing transactions. But private transactions are not much regulated by federal law, with one main exception—a gun cannot be shipped directly to an out-of-state purchaser unless that person has a retail license.[36] Federal law bans knowingly transferring to someone who is disqualified.[37]

---

[28] Gun Control Act of 1968, Pub. L. No. 90-618, 82 Stat. 1213 (1968) (codified as amended at 18 U.S.C. §§ 921–28 (2012)).

[29] 18 U.S.C. § 922(a)(1)(A) (2012).

[30] *Id.*

[31] *Id.* § 922(d).

[32] *Id.* § 922(b)(2); ATF Commerce in Firearms & Ammunition Rule, 27 C.F.R. § 478.99(b)(2) (2014).

[33] § 478.102(a).

[34] § 478.121; § 478.124; § 478.129.

[35] § 478.127; *see* § 478.57; 18 U.S.C. § 923(g)(4) (2012).

[36] 18 U.S.C. § 922(b)(3) (2012).

[37] *Id.* § 922(d); 27 C.F.R. § 478.32.

Seventeen states, including Illinois, impose some additional regulation on private transfers.[38] In Illinois, anyone who acquires a gun from any source must have a Firearm Owners Identification card (FOID), and as of 2013, anyone who transfers a gun privately must keep a record of that transfer for ten years after the sale.[39] The City of Chicago imposes additional restrictions: together with Washington, D.C.,[40] it has been the most tightly regulated city in the nation, effectively banning residents from keeping handguns in city limits from 1982 to 2010, and now requiring that handguns be registered. At the time of this Article, there are still no retail dealers in the city limits (though new regulations that allow gun dealers to operate in a very small portion of the city recently passed the City Council), requiring prospective gun purchasers to travel to the suburbs to buy a new gun.[41]

In practice, legitimate gun owners acquire their guns from a variety of sources by a variety of means. Unfortunately, there is little documentation of the pattern of gun transactions. One notable exception is the National Survey of Private Ownership of Firearms in the United States (NSPOF), which was conducted in 1994 and was one of the first nationally representative surveys to ask about the stock and flow of guns in the United States.[42] The NSPOF asked respondents to describe how they obtained their most recent gun, including whether they bought the gun (and, if so, from what source) or obtained it as a loan or gift.[43] Focusing on guns acquired during the two years preceding the survey (1993–1994), about

---

[38] *Universal Background Checks & the Private Sale Loophole Policy Summary*, LAW CTR. TO PREVENT GUN VIOLENCE (Aug. 21, 2013), http://smartgunlaws.org/universal-gun-background-checks-policy-summary/, *archived at* http://perma.cc/4ZZJ-YNCY.

[39] ILL. STATE POLICE FIREARMS SERVS. BUREAU, ACQUIRING OR TRANSFERRING FIREARMS IN ILLINOIS 1–2, http://www.isp.state.il.us/docs/9-049.pdf (last visited Sept. 14, 2014), *archived at* http://perma.cc/S824-H7WX*; see also* Firearm Owners Identification Card Act, 430 ILL. COMP. STAT. ANN. § 65/2(a) (West 2014*); id.* § 65/3(a).

[40] *See* District of Columbia v. Heller, 554 U.S. 570, 574–75 (2008).

[41] Julie Bosman, *Mayor of Chicago Seeks to Further Tighten Gun Laws*, N.Y. TIMES, May 29, 2014, at A20; John Byrne & Bill Ruthhart, *Emanuel Touts Monthly Phone Fee Hike for Pensions*, CHI. TRIB., Jun. 25, 2014, http://articles.chicagotribune.com/2014-06-25/news/chi-emanuel-gun-sale-plan-to-get-city-council-vote-today-20140624_1_property-tax-hike-911-fee-increase-phone-tax, *archived at* http://perma.cc/MG8-5RCX.

[42] PHILIP J. COOK & JENS LUDWIG, NAT'L INST. OF JUSTICE, U.S. DEP'T OF JUSTICE, GUNS IN AMERICA: NATIONAL SURVEY ON PRIVATE OWNERSHIP AND USE OF FIREARMS (1997), *available at* https://www.ncjrs.gov/pdffiles/165476.pdf, *archived at* http://perma.cc/WD9V-SNPV.

[43] *Id.* at 6.

60% were obtained from what appears to be a licensed dealer.[44] Put differently, about 40% changed hands in a transaction that did not involve a licensed gun dealer, what Cook, Molliconi, and Cole termed the "secondary market."[45] That NSPOF survey is the origin of the 40% statistic that became famous during the 2013 national debate over universal background checks.[46]

Table 1

Sources of Firearms to Gun Owners, Guns Acquired Within the Past Two Years

Primary Market Definition	All Guns (N=248)	Handguns (N=126)	Long Guns (N=121)
		Percent	
(1) Cash purchase from gun, hardware or department store, from pawnshop, or from seller at gun show, flea market or military, or through mail that respondent says "yes" was FFL	57.0	62.7	52.4
(2) Add cash purchase from seller at gun show, flea market or military, or through mail, that respondent says "probably was/think so"	58.4	64.2	53.6
(3) Add non-cash transactions (trades) with sources in (1) and (2)	60.1	66.4	54.8

[44] *Id.*

[45] Philip J. Cook et al., *Regulating Gun Markets*, 86 J. CRIM. L. & CRIMINOLOGY 59, 62–63, 68 (1995).

[46] After the mass shooting at Sandy Hook Elementary School in Newtown, Connecticut, the Obama administration supported a proposal to require universal background checks for all handgun sales, not just those involving licensed gun dealers, and cited the NSPOF estimate that 30%–40% of all gun transactions each year in the United States occur in the secondary market. Many opponents of universal background checks challenged the 40% statistic, while the media had trouble understanding the estimate. For example, the *Washington Post*'s fact checker, Glenn Kessler, unhelpfully got caught up in the fact that President Obama said "sales" rather than "transactions," although the most likely explanation for that word choice is that some speechwriter made the not unreasonable decision that "transactions" is a clumsy term to use in a presidential speech. *See* Glenn Kessler, *Obama's Continued Use of the Claim That 40 Percent of Gun Sales Lack Background Checks*, WASH. POST (Apr. 2, 2013, 6:02 AM), http://www.washingtonpost.com/blogs/fact-checker/post/obamas-continued-use-of-the-claim-that-40-percent-of-gun-sales-lack-background-checks/2013/04/01/002e06ce-9b0f-11e2-a941-a19bce7af755_blog.html, *archived at* http://perma.cc/DJ3Q-KLK4.

(4) Add cash purchases, trades with family, friends/acquaintance that respondent says are or probably are FFLs	64.3	72.1	57.8
(5) Add gifts, inheritances, prizes from sources in (1) through (4)	73.6	84.2	64.7

Source: PHILIP J. COOK & JENS LUDWIG, GUNS IN AMERICA, 28 tbl. 3.14 (1996).

Guns used in crimes are far less likely to be acquired from a licensed dealer than are other guns in private hands. Much violent crime is committed by those under the age of twenty-one, who are barred from buying a handgun from a dealer.[47] Many adult criminals are disqualified from buying or possessing a gun due to a felony conviction and would fail a background check if they attempted to purchase a gun under their true identity.[48] An additional barrier in Illinois is the necessity of obtaining a Firearm Owner Identification (FOID) card before purchasing a gun.[49]

One guide to how criminals obtain their guns is a 2004 survey of inmates of state prisons conducted by the U.S. Department of Justice. Restricting the sample to just those that have been in prison for two years or fewer (who can provide relatively current information), the survey data indicate that 12% of guns last possessed by the inmates had been purchased from a dealer.[50] Most guns acquired by these inmates came from their family and social network, or from "street" sources.[51]

[47] In 2012, 24.1% of all arrests nationwide for violent crime were of individuals under the age of twenty-one. Violent crimes were defined by the FBI Uniform Crime Reports as murder and non-negligent manslaughter, forcible rape, robbery, aggravated assault, burglary, larceny-theft, and arson. FED. BUREAU OF INVESTIGATION, U.S. DEP'T OF JUSTICE, CRIME IN THE UNITED STATES 2012, at tbl.38, http://www.fbi.gov/about-us/cjis/ucr/crime-in-the-u.s/2012/crime-in-the-u.s.-2012/tables/38tabledatadecoverviewpdf (last visited Aug. 30, 2014), *archived at* http://perma.cc/EXM3-V2PS. In addition, according to the 2006 Statistical Tables for the National Crime Victimization Survey (NCVS), for violent crimes, respondents self-reported that 28.2% of single-offender victimizations were committed by those under the age of twenty-one and 34.9% of multiple-offender victimizations were committed by individuals who were all under the age of twenty-one. BUREAU OF JUSTICE STATISTICS, U.S. DEP'T OF JUSTICE, NO. NCJ 22436, CRIMINAL VICTIMIZATION IN THE UNITED STATES, 2006 STATISTICAL TABLES 27 tbl.39, 34 tbl.45 (2006), http://www.bjs.gov/content/pub/pdf/cvus0602.pdf, *archived at* http://perma.cc/A8U2-LHQR.

[48] Philip J. Cook et al., *Criminal Records of Homicide Offenders*, 294 JAMA 598, 598 (2005).

[49] ILL. STATE POLICE FIREARMS SERVS. BUREAU, *supra* note 39, at 1.

[50] *As calculated by authors in* PHILIP J. COOK & KRISTIN A. GOSS, THE GUN DEBATE: WHAT EVERYONE NEEDS TO KNOW 87–88 (2014); *see* BUREAU OF JUSTICE STATISTICS, U.S. DEP'T OF JUSTICE, THE SURVEY OF INMATES IN STATE CORRECTIONAL FACILITIES AND THE

Table 2

Sources of Firearms Reported in Prisoner Survey, 2004 National Survey by Respondents Serving Less than Two Years

	SISCF 2004
Friends and Family	41%
Illegal / street	32%
Retail	12%
Other	14%

Source: Based on the 2004 Survey of Inmates of State Correctional Facilities[52]

Unsurprisingly, juveniles must obtain their guns almost entirely from social connections and other informal sources, including theft, gifts and loans from adults, and discards, as they are prohibited from purchasing these weapons from a legal retail outlet.[53] Suggestive findings from small-scale surveys indicate that guns turn over quickly among juvenile offenders[54] and that juveniles are likely to obtain their first gun from a family member, but subsequent guns from acquaintances.[55]

A multipronged study of the underground gun market in Chicago provides additional information about how youths and criminals obtain or fail to obtain guns in this tightly regulated environment.[56] Two of the current authors, Cook and Ludwig, worked with the ethnographer Sudhir Venkatesh and the criminologist Anthony Braga. Venkatesh interviewed a

SURVEY OF INMATES IN FEDERAL CORRECTIONAL FACILITIES QUESTIONNAIRE (2004), *available at* http://www.bjs.gov/content/pub/pdf/sisfcf04_q.pdf, *archived at* http://perma.cc/PG8E-7CSR; *see also* Webster et al., *supra* note 24, at 110.

[51] In 1986, James Wright and Peter Rossi published their seminal volume, *Armed and Considered Dangerous: A Survey of Felons and Their Firearms*, on how and why criminals acquire firearms, using a nationally representative survey of nearly 1,900 male felons serving time in state prisons. They found that about one in six gun criminals got their guns from an FFL and while 75% of their sample had owned a gun at some point in their life, "only" half of the sample reported using a gun while committing a crime at some point in their criminal career—suggesting that gun possession may be a temporary rather than permanent state. JAMES D. WRIGHT & PETER H. ROSSI, ARMED AND CONSIDERED DANGEROUS: A SURVEY OF FELONS AND THEIR FIREARMS 1, 13, 17 (1986).

[52] BUREAU OF JUSTICE STATISTICS, *supra* note 50, *as calculated in* COOK & GOSS, *supra* note 50, at 87–88.

[53] 18 U.S.C. § 922 (2012); Cook et al., *supra* note 45, at 70.

[54] Cook et al., *supra* note 45, at 90.

[55] Daniel W. Webster et al., *How Delinquent Youths Acquire Guns: Initial Versus Most Recent Gun Acquisitions*, 79 J. URB. HEALTH 60, 60, 66 (2002).

[56] *See* Cook et al., *supra* note 20.

variety of youths and adults who were involved in the underground economy in two distressed neighborhoods in Southside Chicago.[57]

Venkatesh found evidence that the market for guns had high transaction costs for many participants, illustrated by the fact that some would-be buyers turned to brokers who for a $30–$50 fee would attempt to locate a seller—and not always succeed.[58] The impression of high search costs was reinforced by surveys of arrestees conducted in Chicago under the Arrestee Drug Abuse Monitoring (ADAM) program by the U.S. Department of Justice; the "gun" supplement in the late 1990s found a high percentage of respondents saying that they would like to obtain a gun but it would take them a long time or be too expensive.[59] We interpreted this and other evidence of high transaction costs as a reflection of the nature of this underground market, which has two key features: first, almost everyone was aware of the fact that the CPD placed a high priority on taking guns off the street and stopping gun sales.[60] Second, the market for guns is intrinsically "thin"; in comparison with drugs, for example, there are relatively few potential buyers and not much profit to be made.[61] Finding a gun "connection" was hence more difficult than finding a connection for drugs and other contraband.[62]

Given this evidence, it is not surprising that only about 40% of robberies known to the police in Chicago are committed with guns, despite the fact that gun robberies tend to be more successful and lucrative than robberies with other weapons.[63] More surprising is that almost all murders in Chicago are committed by gun. The percentage in recent years has been in the 80%–85% range, far above the national average of about 68%.[64]

---

[57] *Id.* at F589.

[58] *Id.* at F595.

[59] *Id.* at F614.

[60] *Id.* at F606.

[61] *Id.* at F611.

[62] *See id.* at F596.

[63] Philip J. Cook, *Robbery*, *in* THE OXFORD HANDBOOK OF CRIME AND PUBLIC POLICY 102, 109 (Michael Tonry ed. 2009). This number is close to the national average.

[64] The national average of 68% was calculated for all U.S. homicides in 2010. *See* CTRS. FOR DISEASE CONTROL AND PREVENTION, *supra* note 7 (First, query "Violence-related, homicide" injuries in Box 1; query "firearm" in Box 2; limit analysis to Census Region, United States, 2010 report, All Races, All Hispanic Origins, Both Sexes (Box 3). Second, query "Violence-related, homicide" injuries in Box 1; query "non-firearm" in Box 2; limit analysis to Census Region, United States, 2010 report, All Races, All Hispanic Origins, Both Sexes (Box 3)). With 11,078 firearm-caused homicides and 5,181 non-firearm-caused homicides, the average percentage of homicides caused by firearms is 68.13%. *Id.*

The average Chicago gun share of homicides was calculated based on the following data:

While the underground gun market has high transactions costs that reduce gun ownership among common criminals and delinquents, the most dangerous people—those who account for the bulk of the killing—do appear to have access to guns. The key to explaining this differential access may be the fact that the preponderance of murders in Chicago are committed by members of organized gangs, and that those gangs provide members with trustworthy connections from which to obtain a gun.[65]

II. FIREARMS TRACE DATA

The CPD has placed a priority on taking guns off the street since the 1950s.[66] In 2013, it "recovered" 6,813 guns, or about 2.5 per 1,000

2011 – 83.4%
2010 – 80.5%
2009 – 81.7%
2008 – 80.6%
2007 – 73.3%
2006 – 81.5%
2005 – 75.7%

CHI. POLICE DEP'T, *supra* note 22, at 22;

RESEARCH & DEV. DIV., CHI. POLICE DEP'T, 2010 MURDER ANALYSIS REPORT 22 (2012), https://portal.chicagopolice.org/portal/page/poral/ClearPath/News/Statistical%20Reports/Murder%20Reports/MA10.pdf, *archived at* http://perma.cc/E2Q3-DT74;

RESEARCH & DEV. DIV., CHI. POLICE DEP'T, 2009 MURDER ANALYSIS REPORT 22 (2012), https://portal.chicagopolice.org/portal/page/portal/ClearPath/News/Statistical%20Reports/Murder%20Reports/MA09_1.pdf, *archived at* http://perma.cc/98VY-WPGS;

RESEARCH & DEV. DIV., CHI. POLICE DEP'T, 2008 MURDER ANALYSIS REPORT 21 (2009), https://portal.chicagopolice.org/portal/page/portal/ClearPath/News/Statistical%20Reports/Murder%20Reports/2008%20Murder%20Reports/MA08.pdf, *archived at* http://perma.cc/8LDD-3G3X;

RESEARCH & DEV. DIV., CHI. POLICE DEP'T, 2006–2007 MURDER ANALYSIS 23 (2008), https://portal.chicagopolice.org/portal/page/portal/ClearPath/News/Statistical%20Reports/Murder%20Reports/2006%20-%202007%20Murder%20Reports/06-07_MA.pdf, *archived at* http://perma.cc/M95Q-F6LU;

RESEARCH & DEV. DIV., CHI. POLICE DEP'T, 2005 MURDER ANALYSIS 25 (2006), https://portal.chicagopolice.org/portal/page/portal/ClearPath/News/Statistical%20Reports/Murder%20Reports/2005%20Murder%20Reports/Murder2005.pdf, *archived at* http://perma.cc/A4DG-384S.

[65] The Chicago Police Department 2011 homicide report notes that among the 312 homicides where the police have determined a motive, 46% are either altercations that police attribute to "street gangs," or homicides due to "gangland narcotics." CHI. POLICE DEP'T, *supra* note 22, at 27–28. The actual share of homicides involving people who are in gangs is surely much higher, since some homicides that, for example, occur because of love triangles, money, "other," gambling, theft, robbery, or retaliation could have involved gang members.

[66] Cook et al., *supra* note 20, at F606.

residents.[67] The large majority of these guns are confiscated by the police in the course of a search of an individual, vehicle, or residence, or picked up where they are discarded at a crime scene.[68]

To better understand the sources of guns used in crime, the CPD's policy is to submit information about all recovered guns for tracing by the National Tracing Center (NTC) of the Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF). In practice, a trace request is conducted online by filling out a form that includes the manufacturer, gun type, caliber, and model, its serial number, and information about the possessor (if any).[69]

If the NTC is successful, it returns information on the 4473 form[70] that documents all gun sales, including the dealer's name, the purchaser's name and demographic information, and the date of sale. A successful trace travels the length of the supply chain, beginning with the manufacturer or importer, on to the distributors, and finally to the retail dealer. Each link in the chain must have accurate records and cooperate with the request from the NTC if the trace is to be successful. This cumbersome process can fail for many reasons. Among the most important are if the serial number of the gun has been intentionally obliterated at some point and cannot be recovered; the gun was first sold before the recordkeeping requirements went into effect from the 1968 Gun Control Act; or the retail dealer does not produce the 4473 form.[71]

The CPD provided the authors access to trace data from the last decade on the condition that it would have a chance to review any of our findings prior to public dissemination, primarily to guard against the risk of

---

[67] News Release, Chi. Police Dep't, Chicago Police Recovered 6,813 Illegal Guns in 2013 (Jan. 13, 2014), http://www.chicagopolice.org/MailingList/PressAttachment/Release2013GunRecoveries.pdf, *archived at* http://perma.cc/X6HM-5SFT; *see State & County Quick Facts, Chicago (City), Illinois*, U.S. CENSUS BUREAU, http://quickfacts.census.gov/qfd/states/17/1714000.html (last visited June 21, 2014), *archived at* http://perma.cc/W3RM-4X36 (estimating the 2013 Chicago population as 2,718,782).

[68] We can see this indicator in the trace data we analyzed as part of this study. This has been further corroborated by conversations between police officials and the authors.

[69] The platform for these requests is called E-Trace and is only accessible to law enforcement agencies. Its portal is available at https://www.atfonline.gov/etrace/, *archived at* http://perma.cc/ZBJ-6E46.

[70] A sample 4473 form can be viewed at the following URL: http://www.atf.gov/files/forms/download/atf-f-4473-1.pdf, *archived at* http://perma.cc/E8ZN-TBK6. This form is filled out by the purchaser and seller when a firearm is first sold at a retail source.

[71] Note that if the dealer has gone out of business, these forms are supposed to be deposited with the NTC, where they must be searched by hand.

inadvertent disclosure of confidential information.[72] From this trove of data, we created a research dataset consisting of traces that met the following conditions:

- Firearms were recovered between January 1, 2009 and September 17, 2013; and
- Firearms were in the possession of an identified individual under age forty at the time.

We refer to the sample of guns submitted by CPD to ATF for tracing that meet the two criteria above as "crime guns." Since the possessor was arrested for most of the guns that met our conditions, it was possible to link the possessor to his or her Chicago criminal record. If there was no matching record for the gun confiscation in the CPD arrest file, we assume the person was not arrested. If, however, there was a match that includes a central booking number in the system, then we call that the "arrest" associated with the confiscation of the crime gun. Appendix Table 1 reports the distribution of criminal charges for the arrests associated with those caught in possession of the crime guns in our analysis sample. The large majority of the arrests associated with the confiscation of the gun are for a weapons offense such as unlawful use of a weapon (UUW) or possession of a firearm without also having a valid Illinois FOID card. It is possible that some of the people caught with these guns were later charged with a more serious crime that they had committed with the gun, but the arrest that resulted directly in the confiscation of the gun itself was for a weapons offense.

Appendix Table 2 shows that the observed characteristics of the people found in possession of crime guns in Chicago change very little as we apply our different filters in Table 3 to define our final analysis sample.

Some readers might worry that "under forty" is an overly broad category, since crime is so disproportionately concentrated among people who are in their teens or twenties. But Appendix Table 3 shows that fully 16% of arrestees under forty are ages thirty to thirty-nine and that that older cohort is quite similar in terms of prior record and prevalence of gang affiliation to younger arrestees.

This analysis focuses on sources of guns to gang members. Whether the possessor had an association with a gang at or before the time of arrest was determined from indicators that were found in the criminal record. Each firearm is linked to an incident number, to which one or more arrests

[72] CPD data were accessed via a confidential data sharing agreement between the CPD and the University of Chicago Crime Lab. Microdata used in this analysis will not be made available to the public by the CPD or the Crime Lab.

are linked in the CPD records. A gun was considered to be a "gang gun" if the possessor had ever been arrested as a gang member in Chicago, as indicated by the inclusion of a "gang arrest card" in the file.[73] Whenever the arresting officer has reason to believe an arrestee is a gang member based on a defined set of criteria,[74] the officer is directed to fill out this card. In CPD's data system, a person's internal identification number is linked to an indication that he or she is a member of a given gang.

As with any criminal justice data, there is surely some measurement error in the CPD indicator for gang affiliation. Some actual gang members are not identified in these data, while some individuals identified as gang-involved may no longer be active. CPD does not usually change someone's gang membership status, although there is a field in the system that indicates whether the person is believed to be an active or inactive member. Because the classification of some crimes (such as illegal gun possession) will depend on whether the person charged is a gang member, CPD officers presumably have some incentive to make these gang classifications in a way that will stand up to later scrutiny in court.

We treat any arrest as a gang member to be an indication of gang membership across the entire duration of our data.

---

[73] This indicator may not include individuals who have never been arrested or who have been arrested, but outside of Chicago. Because of these data limitations, our estimates are likely understating the true prevalence of "gang guns" in our sample.

[74] The specific directive to arresting officers is as follows:

> B. Determining an Individuals [sic] Criminal Street Gang Membership
>
> Probable cause to establish an individuals [sic] membership in a criminal street gang must be substantiated by the Department members [sic] experience and knowledge of criminal street gangs and corroborated by specific, documented, and reliable information, including, but not limited to:
>
> 1. the individuals [sic] admission of membership.
>
> 2. the wearing of distinctive emblems, tattoos, or similar markings indicative of a specific criminal street gang.
>
> . . .
>
> 3. the use of signals or symbols distinctive of a specific criminal street gang.
>
> 4. *the identification of the individual as a member or affiliate of a specific criminal organization by an individual who has provided reliable information to the Department in the past and whose information can be independently corroborated.*
>
> 5. *the identification of individuals as a member of a specific criminal organization by another Department member who has specialized knowledge and expertise concerning the subject criminal organization.*

Chi. Police Dep't, Gang & Narcotics Related Enforcement Special Order S10-02-03, *available at* http://directives.chicagopolice.org/directives/data/a7a57be2-12a5752b-27112-a586-d845218c69a1f912.html?ownapi=1, *archived at* http://perma.cc/EF9L-4XFP.

Table 3
Firearms Submitted for Tracing by the CPD, 2009–2013

Group		Guns	People
1.	Total trace requests	32,721	
2.	Trace requests for guns possessed by an identified individual	16,026	
3.	Trace requests for guns in possession of individuals younger than forty	12,641	
4.	Trace requests for guns in possession of individuals younger than forty who were arrested	11,206	8,900
5.	Number of trace requests (group 4) that were successful	7,342	6,900
6.	Number of successful trace requests (group 5) that were for new guns (< 2 years) at time of recovery	1,251	

Source: CPD Trace Requests, 1/1/09 – 9/13/13.
Note: The counts in the last column indicate the number of people associated with the trace requests. In some cases, the same person is associated with several guns.

Some kinds of information can only be determined if the trace was successful, including the age of the gun, and the location of first retail purchase. For guns recovered from individuals under the age of forty who were arrested, 66% of traces were successful (Table 4). The share of trace attempts that are successful is slightly lower for guns taken from gang members compared to guns taken from those not in gangs (64% versus 70%).

Table 4
Likelihood of Trace Success by Gang Status

	Gang members	Non-gang comparison group	Total
Percent of traces that were successful	63.9%	70.4%	65.5%
Number of traces that were successful over the number of traces submitted	5,374 / 8,410	1,968 / 2,796	7,342 / 11,206

Sample: All guns confiscated from people under forty who were arrested (Groups 4 & 5, Table 3).

It should be noted that unsuccessful traces are not the only problem in using trace data to characterize the supply chain of guns that end up in the hands of gang members. In effect, guns recovered by the police are just a sample from the much larger "population" of guns in the hands of gang members. That sample may or may not be representative of the relevant individuals (gang members with ready access to a gun). If not, conclusions reached on the basis of analyzing recovered guns, especially recovered guns that have been successfully traced, may be misleading.[75]

III. RETAIL DEALERS AS A DIRECT SOURCE OF GUNS TO VIOLATORS

Our first use of the trace data is to investigate the importance of retail dealers as a direct source of the guns confiscated by the police from possessors under the age of forty. We focus on this group because that under-forty population accounts for the vast majority of all gun violence that occurs in the United States each year.[76] We limit the analysis to cases in which the possessor was arrested, since that allows us to use criminal record information to identify the violators who had a gang connection, as explained in Part II. We also limit the analysis to guns that were successfully traced, since those are the only guns for which we have information on the purchaser and dealer involved in the gun's first sale.

The gang members, who make up nearly three-quarters of the total (4,550 out of 6,263), tend to be younger and to have more serious criminal records than the comparison group who were not in a gang (see Table 5). Indeed, 22% of the comparison group had no prior criminal record in Chicago and may have been arrested because, for example, they were discovered to be carrying a gun within city limits following a traffic stop. We use the "non-gang" sample as a comparison group for the "gang" sample, with the former representing those who tend to be less criminally involved on average and perhaps less of a threat to public safety.

---

[75] Philip J. Cook & Anthony A. Braga, *Comprehensive Firearms Tracing: Strategic and Investigative Uses of New Data on Firearms Markets*, 43 ARIZ. L. REV. 277, 278 (2001); Gary Kleck & Shun-Yung Kevin Wang, *The Myth of Big-Time Gun Trafficking and the Overinterpretation of Gun Tracing Data*, 56 UCLA L. REV. 1233, 1250 (2009).

[76] In the City of Chicago over the period from 2010 to 2012, fully 94% of people arrested for gun homicide were age forty or younger (based on original Crime Lab tabulations of CPD data).

Table 5

Characteristics of Sample, Gang Members Versus Non-Gang Comparison Group

	Gang members	Non-gang comparison group	Total
Current arrest includes felony charge	74.3%	59.3%	70.4%
Prior felony arrest	64.4%	28.8%	55.1%
No prior record	17.1%	21.7%	18.3%
Under age twenty-one at arrest	36.1%	19.2%	31.7%
Total #	6,585	2,315	8,900

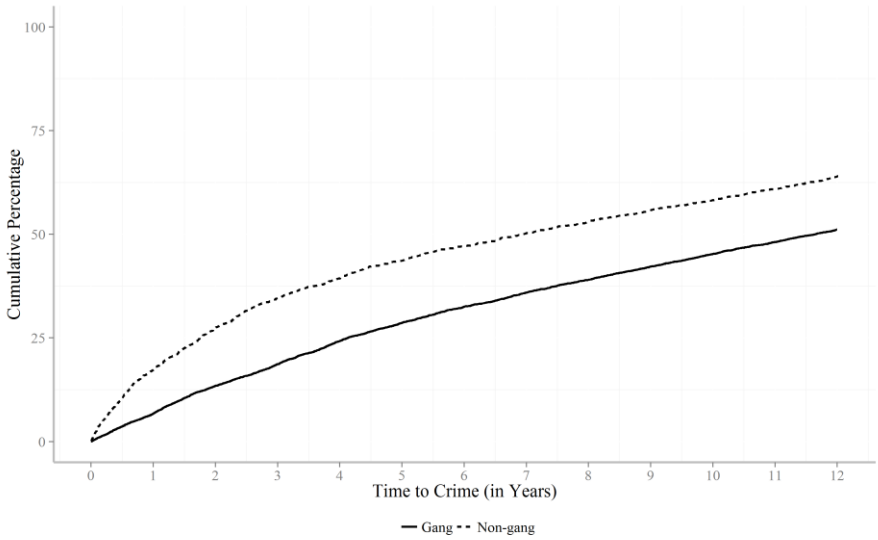
Sample: All people under forty who were arrested in connection with confiscated gun that was submitted for tracing (Groups 4, Table 3)

A. AGE OF GUNS

Gang members are young. Table 5 shows that over one-third are under age twenty-one at the time of the arrest that led to the gun confiscation. Yet gang members tend to carry guns that have been in circulation for many years. In fact, the median elapsed time between first retail sale and confiscation from a gang member is 11.6 years if the gun is successfully traced (see Figure 1). The true age may be greater still, since one reason traces are unsuccessful is that the gun is too old. Only about 10% of guns in the hands of gang members are less than two years old. The comparison group of those not in a gang is carrying newer guns on average, with a median age of 6.9 years; around 25% are less than two years old. The overall median age of all confiscated guns is 10.4.

Figure 1

All Successfully Traced Firearms Recovered Jan. 1, 2009–Sept. 17, 2013, Time to Crime Twelve Years and Under Shown



The fact that these gang guns tend to be quite old presumably is not because gang members prefer old guns. In fact, in interviews they often express a preference for guns that are "new in the box."[77] Rather, the prevalence of older guns likely reflects what is available and affordable to these individuals. Even for gang members, the underground market does not work as well as the licit market.

B. DIRECT PURCHASE OF NEW GUNS FROM GUN DEALERS

A 2004 survey of state prisoners found that only around 11% obtained their gun directly from a licensed dealer (*see* Table 2).[78] One problem with

[77] One reported reason for this preference is a concern about whether a gun has been used in previous shootouts at which the police gathered ballistic evidence. David M. Kennedy et al., *Youth Violence in Boston: Gun Markets, Serious Youth Offenders, and a Use-Reduction Strategy*, 59 LAW & CONTEMP. PROBS. 147, 169–70 (1996).

[78] *See* BUREAU OF JUSTICE STATISTICS, *supra* note 50. An earlier survey of prisoners carried out in 1982 found that only around one in six obtained their guns directly from a licensed gun dealer. WRIGHT & ROSSI, *supra* note 51, at 17. *See also* Webster et al., *supra* note 24, at 110. There are several differences with the 2004 survey in addition to the twenty-two-year time difference in which the data were collected: the Wright–Rossi sample was collected in just eleven prisons and is not representative of the overall prison population, and the result on guns does not distinguish between newly admitted prisoners and old-timers. It

any survey is the possibility of reporting errors. This could be a particular problem in this case given the potential for ambiguity about whether the gun seller was a licensed FFL dealer or not. The potential confusion on this point can be seen in the results from the 1994 NSPOF phone survey of gun owners nationwide (results reproduced in Table 1 above).[79] About 1.5% of handgun owners were not sure if the person from whom they bought a gun was a FFL dealer. Another 2% say they got their gun through a "non-cash" transaction with a source they thought was or probably was a FFL dealer (which is possible but seems a little odd). Even more puzzling, an additional 6% said they bought the gun from a family member, friend or acquaintance who they said was or probably was a FFL dealer. Another 10% say they got the gun from a source they thought was a FFL dealer through a gift, inheritance, or prize.

The result of the 2004 prisoner survey is similar to the Chicago trace data in finding only a small role for FFL dealers: in particular, the name and demographic characteristics of the possessor match those on the 4473 form that accompanied the first retail sale in just 7.8% of cases. The advantage of examining this question using administrative data is that there is no ambiguity about whether the seller was an FFL dealer. The drawback of this approach is the possibility of "false negatives"—matches that are not recognized as such due to differences in, for example, how the name is spelled or in the date of birth. We try to overcome this limitation by counting as a "match" not only those cases where the name and date of birth of the first purchaser is exactly the same as that of the gun violator (i.e. an "exact match"), but also those cases where there is a difference but of a sort that suggests a high probability of a match (for example, that the first name is "Al" on the arrest record and "Alan" on the 4473 form). The probabilistic match improves sensitivity by allowing cases that do not match exactly on all fields to still be considered.[80] In practice, the exact matches account for 87.5% of the total.

---

is also true that most states in 1982 were not required to conduct background checks to verify the buyer's eligibility to legally buy a gun, so we might expect the importance of direct sales from FFLs to have declined over time with the implementation of the Brady Act nationwide background-check requirements in 1994. *See* Jens Ludwig & Philip J. Cook, *Homicide and Suicide Rates Associated with Implementation of the Brady Handgun Violence Prevention Act*, 284 JAMA 585, 585 (2000).

[79] *See* COOK & LUDWIG, *supra* note 42.

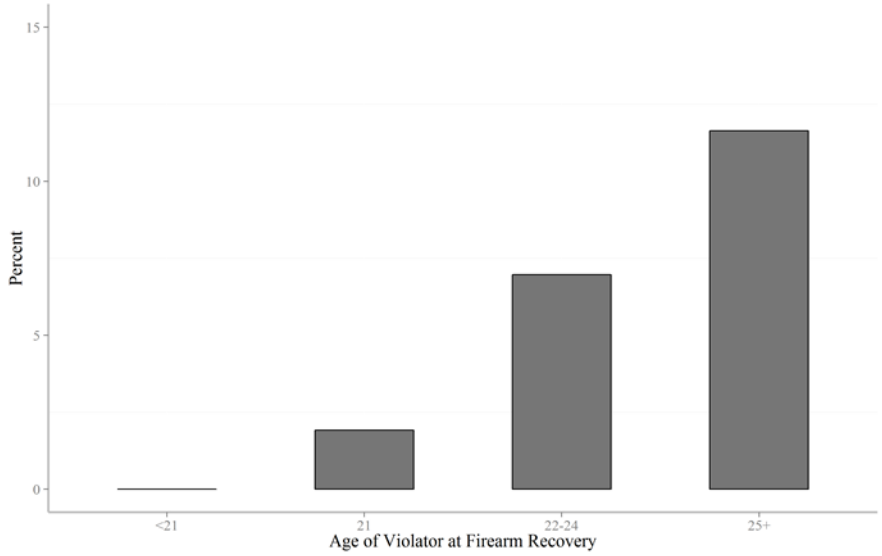
[80] We used Merge Tool Box and first unduplicated the list of all purchasers and all possessors, then did different passes through the data "blocking" on one identifying variable at a time (first race, then gender, then date of birth) and then matching probabilistically on first and last name. The "blocking" involves doing an exact match on the one identifier used for the blocking (such as race), to reduce the number of observations that the probabilistic

Almost all of these matches are with possessors who were twenty-two or older at the time of arrest, as shown in Figure 2. That age effect presumably reflects the ban on dealer sales of handguns to those under twenty-one and the lag between purchase and confiscation.[81] For those age twenty-two and over, 11.4% obtained their guns new directly from the dealer in a well-documented sale (*see* Table 6). Note that almost the same percentage of new prisoners reported obtaining a gun from a dealer in the 2004 Survey of Inmates of State Correctional Facilities (Table 2, above).

Figure 2

Percent of Firearms Where Violator and Purchaser Were the Same, by Age

Firearms Recovered Jan. 1, 2009–Sept. 17, 2013



Direct-purchase guns tend to be very new, reflecting the high turnover rate for guns used in crime. Figure 3 shows the rapid decline in the share of direct-purchase guns by the age of the gun, defined using six-month intervals. The median age of a direct-purchase gun is just 1.3 years. Since our ATF trace data only capture the date of the first FFL dealer sale of the

matching software has to compare. Because we do multiple passes through the data, blocking on different fields, the blocking would only contribute to non-matches in cases where the observation in one dataset had different values for each and every one of the variables we try blocking on, which is very rare in practice for true matches.

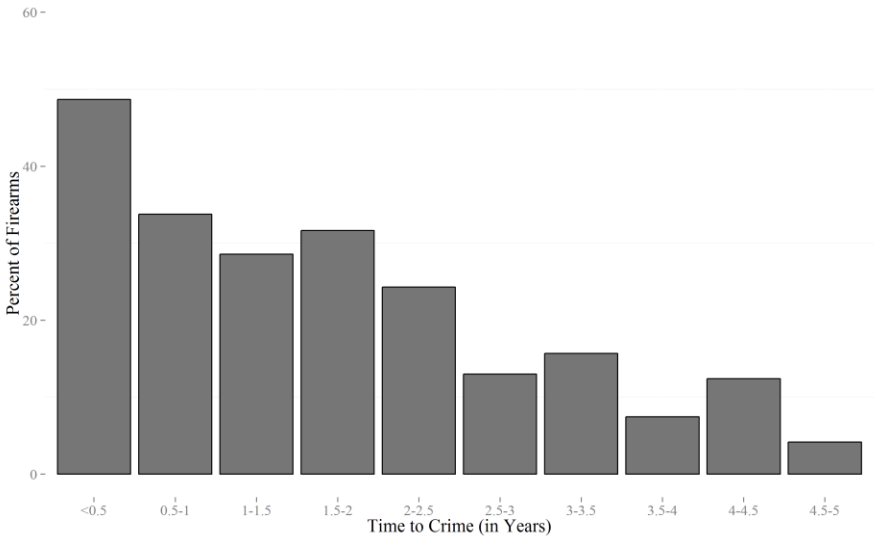
[81] Dealers may sell rifles and shotguns to eighteen-year-olds, but almost all of the guns in the sample—91.8%—are handguns.

gun, we cannot directly measure the time between the transaction and the gun violation for crime guns where the first purchaser and the possessor were not the same person. But at least the result we do have, for the young age of guns where the possessor and purchaser are the same person, supports the view that guns used in crime have typically been in the hands of the violator for only a brief time.

Figure 3

Percent of Firearms for Which Violator and Purchaser Were the Same, by Time to Crime

Firearms Recovered Jan. 1, 2009–Sept. 17, 2013



Interestingly, the non-gang comparison group is much more likely to be in possession of a direct-purchase gun than the gang members (28% versus 3%, as shown in the last row of Table 6). Part of the explanation may be that the gang members—even those who meet the age requirement for buying from a dealer—are more likely than the comparison group to be disqualified due to their criminal record. The top two rows of Table 6 divide the two groups of adult violators by whether their prior criminal record includes a felony arrest, demonstrating that that condition accounts for part (but only part) of the difference in direct-purchase rates between the two groups. Even among people with a prior felony arrest, gang members are less likely than are those not in a gang to have purchased their gun directly from a FFL (1% versus 10%).

Table 6

Percent of Guns Purchased New from Licensed Gun Dealer, by Gang Status and Prior Record of Adult Possessors

	Gang members	Non-gang comparison group	Total
Prior felony arrest	1.2%	9.9%	2.7%
	1,610	312	1,922
No prior felony arrest	5.9%	33.7%	20.7%
	852	967	1,819
Total	2.8%	27.9%	11.4%
	2,462	1,279	3,741

Sample: The people who were arrested in connection with a gun that was confiscated and successfully traced (Group 5, Table 3). The sample is limited to people aged twenty-two and over. A "new" gun is one that was confiscated within two years of its first retail sale.

C. INDICATORS OF STRAW PURCHASE AND DIVERSION BY DEALERS

The direct-purchase indicator used above is whether the name and recorded characteristics of the violator are the same as recorded on the 4473 form of the first retail sale. Dealers may be providing guns to gang members in other ways that are not included among the matches. For example:

- The gun may have been purchased used from a dealer, in which case the relevant 4473 would exist, but not be reached in the trace process;
- The gun may have been directly purchased with a counterfeit FOID card;
- The gun may have been purchased by an intermediary in a so-called "straw" purchase, of which the dealer may or may not have been aware;
- The gun may have been sold "under the counter" with no documentation; or
- The gun may have been stolen from the dealer by a clerk or burglar.

The trace data provide scant evidence on these channels, although we can make some inferences with the help of a few assumptions. For example, one pattern that is suggestive of a straw purchase is that a new gun was recovered from a man but had first been purchased by a woman. For guns less than two years old, that pattern is much more common among gang members than in the comparison group, as shown in Table 7. Fully 15% of new guns in the hands of male gang members were first purchased by a female. Of course, other scenarios may account for some portion of

the female-to-male transfers of new guns: some of those women may have been working on their own, buying guns "on spec" and selling as the opportunity arose, and others may have simply bought a gun for their own use but ended up sharing it or having it stolen by a man. Still, we deem these results to be suggestive of the relatively greater importance of straw purchases for gang members than for others.

Table 7

Sex of Original Buyer and Current Possessor, New Guns

	Gang members	Non-gang comparison group	Total
Female buyer/male possessor	15.1%	5.8%	11.1%
Female buyer/ female possessor	0.7%	3.0%	1.7%
Male buyer	59.2%	65.2%	91.8%
Missing gender information	24.9%	26.1%	25.4%
Total # < 2 years TTC	714	537	1,251

Sample: The people who were arrested in connection with a gun that was confiscated and successfully traced (Group 5, Table 3). The sample is limited to people aged twenty-two and over.

Another channel by which gun dealers may supply gang members with guns is through off-the-books sales or theft from the store's inventory. Transfers of this sort are by definition unrecorded, but there may be some indication in the trace data from the unsuccessful traces. Some traces are successful in identifying the gun dealer that is named in the distributor's record, but go no further. The failure of the dealer to provide a 4473 form to ATF can result from the form being lost, but it may also reflect the fact that the transfer was off the books—an under-the-counter sale or a theft.

To explore this possibility, we use an expanded sample of guns submitted for tracing. We limited the sample to those guns that were recovered in connection with an arrest of someone under forty, and then had been traced to a retail dealer whether or not the information from the 4473 was obtained. Note that without the 4473, it is not possible to determine exactly when the gun was first sold by the gun dealer or who first purchased the gun.

Table 8 shows that 5.5% of all guns that could be traced to a specific FFL could not be connected to a 4473 form, and hence there was no information on the date or purchaser in the first sale. This figure does not differ much between gang members and our non-gang comparison group (5.6% vs. 5.2%).

Table 8
Outcomes of Trace Requests, by Gang Status

	Gang members	Non-gang comparison group	Total
Successful trace	61.0%	67.2%	62.6%
Traced to retail dealer but no 4473 form available	5.6%	5.2%	5.5%
Other unsuccessful trace	33.3%	27.7%	31.9%
Total percentage	100%	100%	100%
Total #	8,410	2,796	11,206

Sample: All guns confiscated from people under forty who were arrested (Group 4, Table 3)

IV. GUN TRAFFICKING TO GANG MEMBERS

In addition to the prospect of "dirty dealers" supplying guns to gang members, another key concern for law enforcement has been the prospect of interstate trafficking as a source of crime guns. The nature of gun regulation in the United States practically invites interstate gun trafficking. Federal law sets a minimum "floor" on how tightly guns must be regulated, with states and cities free to set stricter regulations as they wish (subject to some Second Amendment limits that the courts are still defining). These differences in regulatory stringency create arbitrage opportunities to be exploited by underground entrepreneurs in purchasing guns in loose-regulation states and reselling them in places like Illinois (or Chicago in particular) that have more restrictive gun laws.

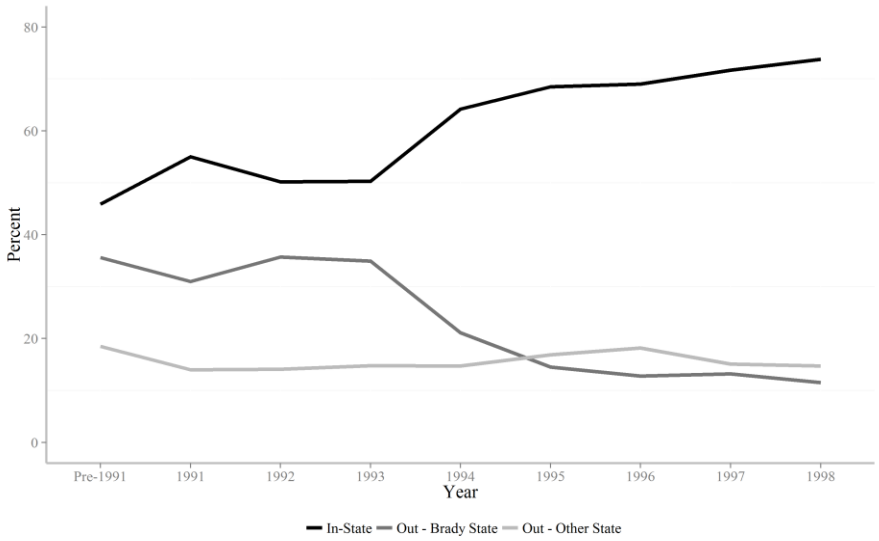
Perhaps the strongest evidence of the importance of trafficking in supplying guns to Chicago criminals comes from the natural experiment created by the federal Brady Handgun Violence Prevention Act.[82] That Act,

[82] Brady Handgun Violence Prevention Act, Pub. L. No. 103-159, 107 Stat. 1536 (1993).

implemented in 1994, required for the first time that FFL dealers in all states conduct a background check of would-be purchasers before transferring a gun.[83] States that already required a background check, including Illinois, were not directly affected by this provision. But Chicago's underground gun market was greatly affected. Imports from the Deep South and other lax-control states had figured prominently in gun traces for handguns first sold before 1994.[84] The distribution of source states changed abruptly in the year the new law was implemented; for example, in an analysis of guns recovered by the CPD in the years 1996–1999, shown in Figure 4, the prevalence of guns first sold in the Deep South dropped from about 35% prior to 1994 down to just 15% within two years.[85] This "iron pipeline" was largely shut down by the fact that the Brady Act made it more difficult for traffickers to buy new guns from dealers in the states with lax controls.[86]

Figure 4[87]

Sources of Handguns Recovered in Chicago, 1996–99, by Year of First Sale



[83] Ludwig & Cook, *supra* note 78, at 585.

[84] Cook & Braga, *supra* note 75, at 304.

[85] *Id.* at 306.

[86] *Id.*

[87] *Id.*

A. GEOGRAPHY OF SOURCES OF GANG GUNS

Table 9 shows how the locations of the first sale of crime guns are distributed across different areas, by two factors: whether the violator caught with the gun is in a gang and whether the gun is new.[88] We divide geographic locations into Cook County,[89] the rest of Illinois, Indiana,[90] and then the rest of the United States.

Perhaps the strongest indicator for the role of gun trafficking in Table 9 is the importance of Indiana as a source of crime guns, particularly for gang members. The share of new (less than two years since first sale) gang guns that come from Indiana is 32%, versus just 13% for guns taken from our comparison group of non-gang gun violators. The difference for older guns is smaller. The fact that one-third of new gang guns confiscated in Chicago were first sold in Indiana suggests that trafficking is playing an important role in supplying new guns to the Chicago underworld and, in particular, that many of these guns are first acquired with the specific purpose of illegal export to Chicago.[91]

---

[88] We define "new" as cases in which the time to crime is under two years.

[89] Since Chicago essentially has no gun stores, this is equivalent to the Chicago suburbs.

[90] Indiana is directly adjacent to Illinois and just a short drive from Chicago, particularly from the high-crime south side of the city.

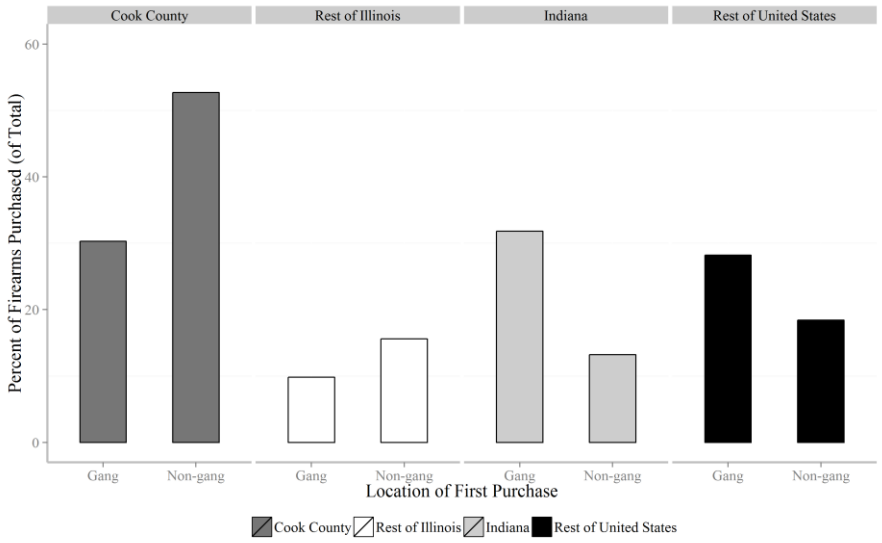
[91] An alternative explanation is that Indiana residents purchased these guns for their own use, moved their households to Chicago, and then had the gun stolen from them—at which point the gun entered the underground market for guns and was acquired by a gang member. *See* Kleck & Wang, *supra* note 75, at 1292–93. While this sequence of events may account for a handful of cases, it is highly unlikely to be the predominant explanation. Surveys of inmates about how they obtained their guns indicate that theft plays only a minor role. *See* Table 2. Furthermore, the flow of new Chicago residents from Indiana is simply not sufficient to account for the observed pattern. According to 2007–2011 data from the American Community Survey, only about 2,000 people relocate from Indiana to Cook County (in which Chicago is located) in an average year, which amounts to 0.04% of the Cook County population—less than 1 in 1,000. *County-to-County Migration Flows: 2007–2011 ACS*, U.S. CENSUS BUREAU, http://www.census.gov/hhes/migration/data/acs/county_to_county_mig_2007_to_2011.html (last visited Aug. 30, 2014), *archived at* http://perma.cc/7TKS-3VTW. It seems very unlikely that this group accounts for one-third of all thefts and other transfers of new guns into the underground market in Chicago. In any event, the importance of trafficking as a source of guns to Chicago is established by the natural experiment created by the Brady Act, as explained above.

Table 9
Location of First Purchase, by Gang Status
New Guns
Firearms Recovered Jan 1, 2009 – Sept. 17, 2013

	Gang/new gun	Gang/ all guns	Non-gang/ new	Non-gang/ all
Cook County	30.3%	22.5%	52.7%	35.0%
Rest of Illinois	9.8%	12.0%	15.6%	13.9%
Indiana	31.8%	23.9%	13.2%	17.2%
Other states	28.2%	41.7%	18.4%	33.9%
Total percentage	100%	100%	100%	100%
Total #	714	5,374	537	1,968

Sample: All successfully traced guns confiscated from people under the age of forty who were arrested (Group 5, Table 3).

Figure 5
Percent of Firearms (of Total Within Gang/Non-Gang)
By Location of First Purchase, New Guns Only
Firearms Recovered Jan. 1, 2009–Sept. 17, 2013



B. ARE PARTICULAR DEALERS RELATIVELY IMPORTANT IN SUPPLYING GANG GUNS?

Are particular dealers especially "gang friendly" when it comes to the documented sales of new guns? It would be useful for guiding regulatory enforcement to know if gangs intentionally seek out some dealers that bend the rules, perhaps by being particularly lax in how they monitor straw purchases, carry out background checks, or abide by any restrictions the surrounding state may have on multiple purchases. Yet Table 10 shows that the three FFLs nationwide that account for the most guns confiscated from gang members in Chicago together account for a total of 27% of all new guns taken from that group. This proportion is actually lower than the share accounted for by the top three FFLs among guns taken from our comparison group of non-gang violators (38%). Given the geographic breakdown in Table 10, the only locale where gang guns are much more likely to come from the top three FFLs than the guns for the non-gang comparison group is the Cook County suburbs. There, the top three FFLs account for 76% of gang guns and 65% of guns for the comparison group.[92]

[92] These statistics are just for residents of Chicago, although they are essentially the same when we include all violators regardless of residence.

Table 10

Concentration of New Gun Sales Among FFL Dealers for Possessors Residing in Chicago

	Gang: % from top three dealers	Non-gang % from top three dealers	Gang # FFLs accounting for 50% of sales	Non-gang # FFLs accounting for 50% of sales
Cook County	75.5% 159	64.7% 167	1.1	1.9
Rest of Illinois	24.6% 57	45.0% 40	9.8	3.7
Indiana	40.3% 174	40.0% 25	5.2	3.8
Other states	6.6% 151	7.8% 51	50.5	24.5
All locations	27.2% 541	38.2% 283	19.6	5.3

Sample: All guns confiscated from people under the age of forty who were arrested (Group 5, Table 3). A "new" gun is one that was confiscated within two years of its first retail sale. The sample is limited to possessors whose home addresses were in Chicago.

C. PREVALENCE OF GUNS WITH OBLITERATED SERIAL NUMBERS

For a small share of the guns taken from Chicago arrestees, there has been an attempt to obliterate the serial number that is stamped into the metal frame. Without a serial number, it is impossible for ATF to trace the gun back to the FFL where it was first sold. Since successful traces are sometimes useful in criminal investigations, it is possible that a gun that is impossible to trace has greater value in the underground market that supplies criminals, and for that reason traffickers will sometimes attempt to remove the serial number.[93] Consistent with the idea that trafficking may be more important for gang members than those not in gangs, the last row of Table 13 shows that a slightly larger share of guns taken from gang members have obliterated serial numbers (5.4% vs. 3.4%). This difference

[93] *See* Kleck & Wang, *supra* note 75, at 1267 (asserting that the strongest reliable indicator of gun trafficking is when a gun has an obliterated serial number).

is more pronounced for those with either no prior criminal record or one that includes a misdemeanor but not a felony. Unsurprisingly, then, possession of a gun with an obliterated serial number is more prevalent among more serious criminals. They or their gun suppliers may foresee illegal gun use, and prefer that the gun not be traceable. For people with a prior felony record, the share of crime guns that have obliterated serial numbers is similar for gang members and those not in gangs (5.9% vs. 5.3%).

Table 11
Percentage of Guns with Obliterated Serial Number

	Gang members	Non-gang comparison group	Total
Prior record includes felony arrest	5.9%	5.3%	5.8%
	5,399	675	6,074
Prior record includes misdemeanor arrest, but no felony	4.1%	3.1%	3.6%
	1,549	1,393	2,942
No prior record	5.2%	2.3%	4.3%
	1,462	728	2,190
Total	5.4%	3.4%	4.9%
	8,410	2,796	11,206

Sample: All guns confiscated from people under forty who were arrested (Group 4, Table 3).

CONCLUSION

Political passions around gun control in America are intense. Yet at least in principle, all sides in the gun control debate should welcome pragmatic law enforcement efforts to disrupt the illicit flow of guns to dangerous offenders. Unfortunately, remarkably little is currently known about how criminals get their guns due to the limited data available to study this issue.

To examine this question, one contribution of this Article is to assemble a unique dataset that comes from matching ATF data on crime guns (and the people and dealers involved in the first sale of those guns) with CPD data on the demographic characteristics, criminal history and gang affiliation of the violators caught with those guns. One key strength of these data is our ability to examine and compare the sources of crime guns to gun violators who are gang members versus those who are not, and to see how other characteristics of the gun violator (or gun store) are

associated with the route through which a gun makes its way into the arrestee's hands.

Like other analyses of ATF crime-gun trace data, however, our data are limited by the fact that they include little direct information about what happens between the first sale by the FFL and the final transaction that put the gun into the hands of the violator. Most traced guns are several years old and have changed hands a number of times by informal sale, loan, theft, or other means. Ideally, we would like "end-to-end" trace data that would capture the sequence of transactions and in particular the transaction that brought the gun into the underworld ambit.

It should also be evident that the sample of people caught with guns may not be representative of the entire population of people at risk for shooting or being shot. Another important limitation comes from the challenges of matching two separate administrative data sources with missing data and data entry errors. We have done our best to limit the errors arising from this process by supplementing exact matches with probabilistic matches. Most likely, there remain some false negatives—cases where the original buyer was the same as the arrestee, but was not identified as such.

The approach used in this Article provides useful insights. It also has obvious limitations and is only a start on the larger effort. Indeed, in part our analysis is intended to serve as a warning of the limitations of trace data. Our research team, together with collaborators around the country, is currently working on a larger mixed-methods project that will seek to complement the data used in this Article with survey interviews of jail inmates, ethnographic research on gun traffickers, and social network analysis.

With these limitations in mind, what can ATF crime-gun trace data tell us about how high-risk gang members get their guns? The first clue is the most important by far: *Crime guns carried by gang members tend to be quite old*. The median age from first retail sale is over ten years, and only 10% are less than two years old. The typical gang member is not carrying a family heirloom, but rather a gun that has been circulating for years that he probably acquired in the previous few months. Second, and closely related, very few gang members buy their guns new from a dealer. Only 2% were purchased directly from an FFL in a documented sale. Of course, that leaves the possibility of undocumented sales, but they also are a minor part of the picture: at most 5% of guns found in the hands of gang members were sold out the back door by "dirty dealers."[94]

---

[94] The actual share is probably less because some of the 5% figure reported in Table 8 is

The "gray area" in terms of the degree to which dealers are complicit in getting guns into the hands of high-risk gang members has to do with straw purchasing. We find that 15% of new guns confiscated from male gang members were first purchased by a female—one potential indication of straw purchasing. From the administrative data available to us, we have no way of knowing how often a dealer could have reasonably known that a woman buying a gun was actually buying the weapon for someone legally prohibited from owning one, rather than buying it for herself. Another gray area is the possibility that dealers are selling used guns to gang members (either documented or not). We have no way to assess the importance of that channel.

We do know that the large majority of guns that wind up in the hands of gang members involved at least one intermediary—a third person that helped get the gun from the FFL dealer into the hands of the gang member.[95] Besides straw purchases, we know that trafficking is of considerable importance in supplying guns to criminals. That fact is clearly demonstrated by the large and abrupt drop in the importance of the Deep South as a source of guns used in crime following the 1994 implementation of the Brady Act. Our new results suggest that trafficking is more common for guns that wind up confiscated from gang members than non-gang members, as indicated by the share of gang guns that come from out of state, and the higher, albeit still modest, share of gang guns that have obliterated serial numbers.

What do these results imply for law enforcement? The strategies available to law enforcement officials to reduce gun access to high-risk people fall into essentially two categories: those focused on what happens at the licensed gun dealer, and those focused on what happens after the gun leaves the dealer's premises—in what we previously called the "secondary gun market."[96] The question of primary policy interest is: which strategy generates the greatest reduction in gun violence per additional dollar spent? Unfortunately, this question cannot be answered from the evidence presented in this Article. We would need much better evidence than is currently available about the relative public safety benefits from each extra dollar allocated to monitoring or investigating dealers versus investigating people suspected of illegal behavior in the secondary gun market.

---

through actual theft at gun stores, as well as some legal sales where the paperwork was just lost.

[95] Theft, which we cannot measure in our data, could be considered a case where the intermediary involuntarily helps put the gun into the hands of a gang member.

[96] Cook et al., *supra* note 45, at 68.

Obvious dealer misbehavior seems to be less common as a source of crime guns to gang members than do secondary market sales that involve at least one intermediary serving as a straw purchaser or interstate trafficker or in some other role. This finding by itself is not dispositive of what the most cost-effective enforcement strategy is. Yet it is worth pointing out that investigatory efforts focused on the secondary market (both first purchasers and final possessors) can do "double duty" and help deter not just secondary market sales but also some important forms of dealer misbehavior, such as looking the other way during sales that are obvious straw purchases.

We hypothesized that the gang members who are responsible for the majority of shootings in Chicago may have easier access to guns than do other people. This hypothesis would help reconcile our findings in *Underground Gun Markets* that the underground gun market as a whole has high transactions costs,[97] yet over 80% of Chicago's homicides involve guns.[98] While we do not have direct measures of accessibility to gang members and our comparison group of non-gang members, we do see some differences in how the two groups get guns: gang members seem to be more reliant on trafficking and straw purchases. But the fact that the guns taken from gang members are on average quite old, despite the widely-reported preference of criminals for newer guns, suggests that even for members of violent Chicago street gangs, the underground market for guns does not "work" as well as the licit market. Regulation and enforcement in that sense are making a difference.

---

[97] These high transaction costs include high price markups, long waits, the existence of brokers who charge transactions fees, and a nontrivial chance of failure for each attempt to get a gun.

[98] Cook et al., *supra* note 20, at F594–96.

APPENDICES

Table A1
Highest Charge at Arrest of Possessor

	Gang Gun	Non-Gang Gun	Total
Homicide - 1st or 2nd Degree	10	1	11
	0.15%	0.04%	0.12%
Criminal Sexual Assault	119	2	121
	1.81%	0.09%	1.36%
Robbery	83	30	113
	1.26%	1.30%	1.27%
Aggravated Assault	83	70	153
	1.26%	3.02%	1.72%
Aggravated Battery	33	10	43
	0.50%	0.43%	0.48%
Burglary	14	4	18
	0.21%	0.17%	0.20%
Larceny - Theft	7	3	10
	0.11%	0.13%	0.11%
Motor Vehicle Theft	13	2	15
	0.20%	0.09%	0.17%
Simple Assault	5	7	12
	0.08%	0.30%	0.13%
Simple Battery	40	59	99
	0.61%	2.55%	1.11%
Forgery and Counterfeiting	0	1	1
	0.00%	0.04%	0.01%
Fraud	0	3	3
	0.00%	0.13%	0.03%
Vandalism	2	3	5
	0.03%	0.13%	0.06%
Weapons	4,692	1,445	6137
	71.25%	62.42%	68.96%
Prostitution	0	3	3
	0.00%	0.13%	0.03%
Drug Abuse Violations	466	161	627
	7.08%	6.95%	7.04%

	Gang Gun	Non-Gang Gun	Total
Gambling	1	0	1
	0.02%	0.00%	0.01%
Offenses Against Family and Children / Involving Children	0	2	2
	0.00%	0.09%	0.02%
Driving Under the Influence	0	2	2
	0.00%	0.09%	0.02%
Liquor Laws	0	5	5
	0.00%	0.22%	0.06%
Disorderly Conduct	10	22	32
	0.15%	0.95%	0.36%
Miscellaneous Non-Index Offenses	64	0	64
	0.97%	0.00%	0.72%
Miscellaneous Municipal Code Violations	0	3	3
	0.00%	0.13%	0.03%
Traffic Violations	2	0	2
	0.03%	0.00%	0.02%
Missing Information	1,024	477	1501
	15.55%	20.60%	16.87%
Total	6,585	2,315	8,900
	100.00%	100.00%	100.00%

Note: FBI UCR codes used for crime designations.
Not Displayed: Involuntary Manslaughter, Arson, Embezzlement, Criminal Sexual Abuse, Stolen Property, and Warrant Arrests (all cells were empty for each category).
Note: Includes individuals who were arrested in possession of weapons, regardless of whether the weapon was ultimately traced successfully.
Sample: All people under 40 who were arrested in connection with a confiscated gun submitted for tracing (Group 4, Table 3).

Table A2

Demographic Characteristics Across Groups 2, 3, and 4

	Group 2	Group 3	Group 4
Male	69.90%	71.94%	73.11%
Missing Gender	25.86%	24.91%	24.30%
Black	60.18%	61.17%	62.34%
Hispanic	10.60%	11.44%	11.26%
White	2.86%	2.00%	1.72%
Other Race	0.52%	0.51%	0.43%
Unknown Race	22.85%	21.92%	21.18%
Missing Race	6.46%	6.20%	5.98%
Age (Mean)	29.07	24.28	23.96
Age (Min)	11	11	11
Age (Max)	97	39	39
Age (Median)	25	23	23

Note: Percentages reflect percent of individuals within group.
Note: Races may sum to over 100% due to double-coding.

Table A3

Table 5 Split Along Age Lines (<30, 30–39, 40+)

Possessor Under 30			
	Gang members	Non-gang	Total
Current Arrest Includes Felony Charge	74.55%	61.72%	71.59%
Prior Felony Arrest	65.15%	29.70%	56.97%
No Prior Record	16.50%	20.77%	17.49%
Under 21 at Arrest	41.62%	25.70%	37.94%
Total Number	5,745	1,724	7,469
Possessor Age 30–39			
	Gang members	Non-gang	Total
Current Arrest Includes Felony Charge	73.87%	51.71%	65.32%
Prior Felony Arrest	59.95%	22.52%	45.52%
No Prior Record	20.25%	25.95%	22.45%
Under 21 at Arrest	0.11%	0.18%	0.14%
Total Number	884	555	1,439
Possessor 40 and Over			
	Gang members	Non-gang	Total
Current Arrest Includes Felony Charge	72.20%	45.13%	55.83%
Prior Felony Arrest	53.04%	20.35%	30.86%
No Prior Record	24.53%	26.00%	25.53%
Under 21 at Arrest	0.70%	0.22%	0.38%
Total Number	428	904	1,332

Sample: Based on Group 4 but with different ages.
Note: A small minority of individuals (7 in total) appear to be erroneously coded as having different ages between data sets.

Table A4

Table 5 Split by Year of Gun Recovery (for Group 4)

Gun Recovered in 2009, Possessor Under 40			
	Gang members	Non-gang	Total
Current Arrest Includes Felony Charge	73.82%	57.86%	70.20%
Prior Felony Arrest	66.60%	28.57%	57.98%
No Prior Record	16.91%	24.46%	18.62%
Under 21 at Arrest	36.75%	16.43%	32.15%
Total Number	1,910	560	2,470
Gun Recovered in 2010, Possessor Under 40			
	Gang members	Non-gang	Total
Current Arrest Includes Felony Charge	75.66%	55.17%	70.85%
Prior Felony Arrest	67.02%	27.01%	57.62%
No Prior Record	16.11%	23.56%	17.86%
Under 21 at Arrest	36.74%	15.90%	31.85%
Total Number	1,701	522	2,223
Gun Recovered in 2011, Possessor under 40			
	Gang members	Non-gang	Total
Current Arrest Includes Felony Charge	75.23%	61.57%	71.65%
Prior Felony Arrest	63.87%	26.96%	54.19%
No Prior Record	18.96%	21.57%	19.64%
Under 21 at Arrest	37.49%	20.35%	33.00%
Total Number	1,619	575	2,194
Gun Recovered in 2012, Possessor Under 40			
	Gang members	Non-gang	Total
Current Arrest Includes Felony Charge	76.78%	61.62%	72.74%
Prior Felony Arrest	62.75%	24.04%	52.42%
No Prior Record	15.72%	20.40%	16.97%
Under 21 at Arrest	36.59%	21.82%	32.65%
Total Number	1,361	495	1,856
Gun Recovered in 2013, Possessor Under 40			
	Gang members	Non-gang	Total
Current Arrest Includes Felony Charge	74.56%	61.57%	71.27%
Prior Felony Arrest	61.09%	25.76%	52.15%
No Prior Record	15.38%	20.09%	16.57%
Under 21 at Arrest	34.47%	20.09%	30.83%
Total Number	676	229	905