

THE SCOPE OF GUN CONTROL INSTRUMENTS  
AND SOURCES OF GUNS FOR CRIMINAL OFFENSES  
(A Preliminary Analysis)

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## I. Introduction

It is now widely believed that the availability of handguns has an important, adverse impact on the crime problem in the United States. Intuition suggests that access to handguns could affect the crime problem not only by aggravating specific offenses (e.g., by transforming drunken quarrels or impulsive robberies into homicides), but also by increasing levels of crime (e.g., by facilitating attacks of one person against another, or by bringing a larger set of targets within reach of impulsive juvenile robbers). Intuition is buttressed by some empirical evidence. Detailed analyses of assaults and murders have indicated that assaults with handguns are much more likely to result in death or serious injury than similarly motivated assaults with other weapons.<sup>1</sup> Crude aggregate studies have indicated that the availability of handguns is positively correlated with levels of crime.<sup>2</sup> Thus, there is some reason to believe that reducing the availability of handguns would result in some reduction in both the level and severity of criminal offenses. Anticipation of these crime reduction benefits justifies the advocacy of gun control policies.

A fundamental problem for gun control policies is that not all gun ownership is bad. Indeed, only a tiny fraction of handguns owned in the United States are used in criminal offenses. The vast majority are used for legitimate purposes such as recreation or self-defense. While one might think these apparently modest pleasures would yield to the potential benefits of reducing serious crime, the politics of the issue suggest the contrary. Whether gun owners resist because their pleasures are more intense than we suppose, or because they are more skeptical about the crime reduction benefits remains unclear. In any event, since most gun ownership is socially harmless and gun owners are reluctant to surrender

their rights to own handguns, the government should seek to protect and preserve the legitimate sector of gun ownership. In effect, our policy objectives in the area of gun control must be schizophrenic: we must seek to restrict illicit uses of handguns while simultaneously preserving legitimate uses at current (or only slightly reduced) levels.<sup>3</sup>

The desire to preserve a legitimate sector of gun ownership creates significant problems for the design of gun control policies. Part of the difficulty is simply conceptual: a gun control policy designed to preserve legitimate uses is much more complicated than one which ignores them. A more important part of the difficulty is substantive: to preserve a legitimate sector of gun ownership it may be necessary to sacrifice some portion of the crime reduction benefits achievable under a more stringent control policy. The size of the legitimate sector of gun ownership will affect observed levels of gun crimes through two mechanisms.

First, since a gun is durable and versatile, there is a risk that it will be used for purposes other than those for which it was originally obtained. In moments of passion, a gun can become a dangerous instrument of expressive violence. In moments of dire economic need, the gun can create income earning possibilities. In the face of uncertain threats, guns used for self-defense can become the instruments of tragic accidents. When a gun is purchased, neither the purchaser nor we can guarantee that such events will not occur within the working life of the gun. Thus, guns originally purchased for legitimate purposes account for some portion of violent gun crimes.

Second, guns purchased and held for legitimate purposes can easily leak to people who have criminal intentions. The leaks can occur at

different levels through a variety of mechanisms. At levels of production, wholesale and retail distribution, the legitimate system is vulnerable to thefts, illegal sales, fraudulent purchases, and legitimate purchases by people legally entitled to purchase a gun, but intending criminal offenses. At the level of private ownership, similar vulnerabilities to theft, illegal sales, fraudulent purchases and legitimate purchases exist. Indeed, simple calculations indicate that household burglaries alone could easily satisfy the current illegal demand for handguns.<sup>4</sup>

Since the size of the legitimate sector affects levels of handgun crime, it may prove difficult to reduce crime without constricting the legitimate sector. In effect, preserving a large sector of handgun ownership may establish a tight upper bound on the potential crime reduction benefits of any gun control policy. Still, the purpose of this analysis is to begin an exploration of gun control policies which seek to preserve a legitimate sector of handgun ownership and reduce levels of handgun crime. In doing so, we may at least expect to solve the conceptual problems created by the approach. We will present a relatively well organized description of the potential sources of guns to different users, and outline policy instruments designed to control the different sources.

However, it is not clear that we will solve the substantive problem. It is possible that preserving the legitimate sector is inconsistent with crime reduction objectives: there may be no policy that tightens the legitimate sector sufficiently to prevent substantial leakage to the illicit sector. As a corollary, any policy effectively designed to reduce violent handgun crime may infringe substantially on the legitimate sector. Still, the exploration of policies that simultaneously protect legitimate

uses of handguns and restrict handgun crime is valuable even if only to convince ourselves that "corner solutions" (represented by our current policy on one hand and a complete ban and confiscation on the other) dominate the intermediate policies we examine.

The approach will be the following. First, a simple model of various sub-markets for handguns will be presented along with whatever empirical information is currently available on their absolute and relative sizes. Second, policy instruments that can control the diverse sub-markets will be identified. Future drafts will contain additional empirical information about the relative sizes of the various sub-markets, and judgments about the potential effectiveness of control instruments. When joined with an analysis of the demand for handguns, we may be able to judge the impact of alternative gun control policies on both legitimate and illicit uses of handguns.

## II. The Market for Handguns

### A. Different Components of Demand

While the major purpose of this analysis is to describe the supply side of the handgun market, it is useful to begin with a brief analysis of the demand. Several components can be distinguished.

First, is the "legitimate demand" -- people who are legally entitled to purchase a handgun, and whose intended uses of the handgun are wholly legitimate (e.g., recreation, or self-defense). While neither they nor we can guarantee they will never use the gun in a criminal offense, at the time of purchase, their intentions are entirely benign.

Second is the "illicit demand" for handguns. This component includes everyone who purchases a gun expecting to use it for a criminal purpose --

either expressive violence or contingent violence.<sup>5</sup> Within this "illicit sector," it is useful to distinguish those who are legally entitled to own a handgun from those who are prohibited. A further distinction can be made on the strength and durability of the individual's desire to own a handgun. Some are strongly motivated, but their interest will quickly flag. Others are very strongly motivated over the long run. Distinguishing levels of motivation is important because motivation will determine which consumers will drop out of the market as the cost and inconvenience of obtaining handguns increases.

Table 1 summarizes these different components. Under ideal circumstances, it would be possible to discuss the size, trends, and, most importantly, the relative importance of these components in the overall pattern of handgun crime. Unfortunately, current data permit only crude calculations.

Figure 1 presents selected indicators of the demand for handguns. Examination of these data suggests the following tentative conclusions:

- The aggregate demand for handguns is increasing in both legitimate and illicit sectors.
- The increase is quite dramatic in the second half of the 1960s.
- The demand in the illicit sector has continued to rise despite the levelling off of the legitimate demand.

Despite the dramatic growth in the illicit demand for handguns, illicit uses continue to constitute only a tiny fraction of the total stock of handguns. Table 2 highlights this observation by presenting estimates of the fraction of the stock of handguns involved in criminal offenses in 1975. The estimates are calculated from alternative assumptions about

Table 1  
Components of the Demand for Handguns

	Legal Status of Purchaser	Intentions at Time of Purchase	Motivation to Secure Handgun	Share in Overall Handgun Crimes
I. Wholly Legitimate Demand	Legitimate	Innocent (Self-Defense; Recreation)	?	?
II. Illicit Demand				
A. Legally Entitled	Legitimate	Criminal		
1. Passionate			Strong, Short- lived	?
2. Deliberate			Strong, Durable	?
B. Prohibited	Illegal	N/A		
1. Casual			Weak; short- lived	?
2. Determined			Strong; Durable	?

Figure 1

Indicator of the Per Capita Demand

for Handguns

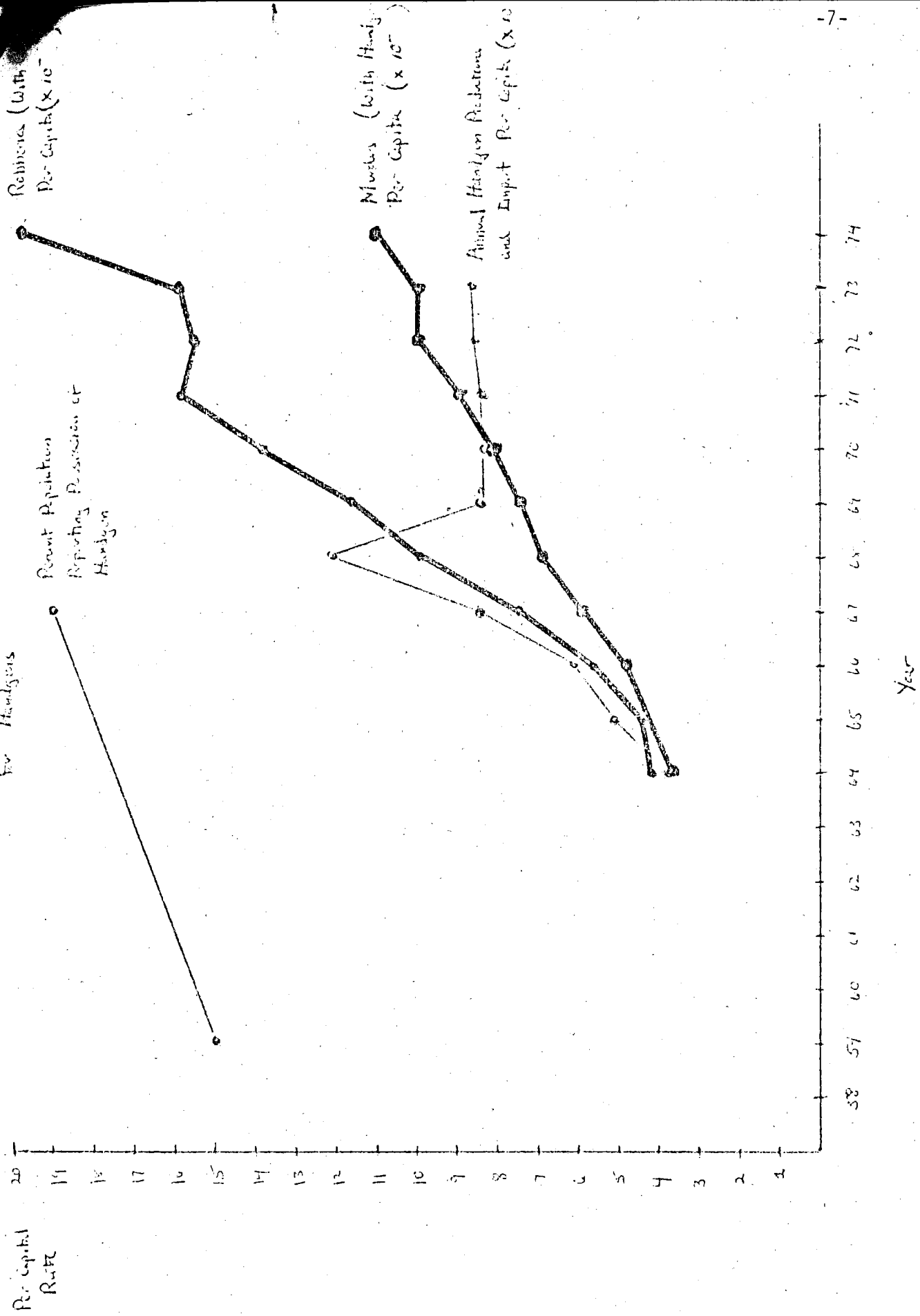


Table 2

Estimated Fraction of Handguns  
Involved in Criminal Offenses

Estimated Number of Handguns Involved Involved in Crimes	Estimates of Handguns in Private Possession		
	10 Million	25 Million	35 Million 50 Million
I. Estimated Number of Handguns Involved in Handgun Assaults	115,000		
A. Assume 1 Assault per gun		0.5%	0.3%
B. Assume 1.2 Assaults per gun	(115,000)		0.2%
C. Assume 1.5 Assaults per gun	(90,000)	0.4%	0.2%
C. Assume 1.5 Assaults per gun	(77,000)	0.3%	0.2%
II. Estimated Number of Handguns Involved in Handgun Homicides	11,000		
A. Assume 1 Homicide per gun		0.1%	0.1%
B. Assume 1.2 Homicides per gun	(11,000)		0.1%
C. Assume 1.5 Homicides per gun	(9,000)	0.1%	0.1%
C. Assume 1.5 Homicides per gun	(7,000)	0.1%	0.1%
III. Estimated Number of Handguns Involved in Armed Robberies	197,000		
A. Assume 1 Robbery per Gun		1.9%	0.6%
B. Assume 3 Robberies Per Gun	(197,000)	0.8%	0.4%
C. Assume 8 Robberies Per Gun	(66,000)	0.3%	0.1%
C. Assume 8 Robberies Per Gun	(25,000)	0.1%	0.1%
IV. Estimated Number of Handguns Involved in Crime			
A. High	(323,000)	3.2%	0.9%
B. Low	(109,000)	1.1%	0.3%
			0.6%
			0.2%

the "working life" of a handgun,<sup>7</sup> and the number of handguns in private hands in 1974. The estimates must be considered extremely uncertain. However, the calculations suggest that a maximum of 3% of the handguns were involved in illicit activities. A much more likely estimate is that somewhere between 0.3% and 0.9% of the guns in private possession were used in crimes.<sup>8</sup>

Unfortunately, these crude data do not allow us to distinguish the role of the different components of demand in the overall handgun crime problem. We do not know what fraction of the handgun homicides are the result of impulsive attacks by legally entitled persons who bought a gun long ago for other purposes; what fraction represent impulsive attacks by a person whose anger lasted just long enough to buy a gun and attack his victim; nor what fraction were professional "hits" accomplished with a gun whose origins had been carefully concealed. Similarly, among the armed robberies, we do not know how many were carried out by criminals who viewed obtaining a gun as a very small component of their overall investment in preparing for the offense, nor how many resulted from increased activity among juveniles who acquired a gun casually and suddenly found numerous, lucrative targets vulnerable to their attack. Detailed analyses of the characteristics of offenders and offenses will be necessary to separate these diverse components of demand. Lacking these analyses (at this time), and knowing that the different sectors will be differentially affected by policy instruments directed at different sources of supply, it is difficult to gauge the likely impact of gun control policy on the overall pattern of crime.

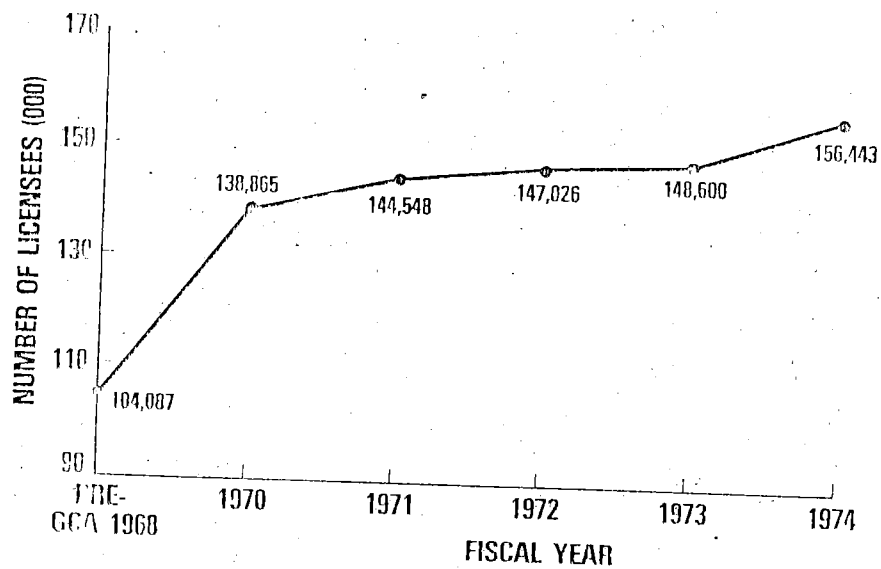
## B. Sources of Supply

The dramatic growth in the demand for handguns has been supported by several different supply sectors. Some are legitimate, some are quasi-legitimate, and some are wholly illicit.

Probably the largest sector is the set of federally licensed gun dealers. The Gun Control Act of 1968 required all firearms dealers to secure a federal license or face criminal prosecution.<sup>9</sup> To become licensed, a dealer had to pay a small fee (\$10.00 for dealers; \$25.00 for pawnshops), specify regular hours and a permanent location for his business, and meet relatively undemanding personal standards (e.g., be older than 21, have no previous convictions, etc.). A federal license conferred some modest benefits (e.g., the right to engage in interstate commerce with other licenses and security against criminal prosecution). However, the license also had liabilities. Licensed dealers were obligated to keep records, and were prohibited from selling handguns to convicted felons, drug users, mental defectives, out-of-state residents, or minors. Moreover, by applying for a license, dealers exposed themselves to more regular and intensive federal observation.

On balance, the legal requirement was probably sufficient to motivate most dealers (and particularly the largest dealers) to apply for federal licenses. This speculation is supported by a close examination of Figure 2. The sheer number of licenses distributed (more than licenses for every 100,000 people over 21 in the U.S.) indicates a significant response to the licensing requirement. Moreover, the shape of the curve is characteristic of a diffusion process in which individuals who were selling guns gradually became aware of the licensing requirement and responded. Thus, it is likely that most people selling guns secured a license in accordance with the federal law.

# *NUMBER OF FIREARMS LICENSES ISSUED ANNUALLY*



Source: Bureau of Alcohol, Tobacco and Firearms

FIGURE 2

However, several circumstances permit people who sell guns to escape (or ignore) the obligation to secure a federal license. First, there is some ambiguity about who is required to possess a license. The language of the statute seems very broad. Despite emphasis on interstate commerce, the statute appears to require even those who restrict their activity to intrastate activity to secure a license.<sup>10</sup> Moreover, to the extent that a few sales a year define a dealer, the licensing requirement extends even to private individuals advertising a sale of a single handgun in a classified column. Thus, the statute seems to establish a comprehensive federal licensing system: no transaction can occur outside its purview.

However, the very breadth of the language creates the ambiguity. No one quite believes that the federal government really means to regulate that extensively. As a result, it has been left partly to the courts, partly to prosecutors, and partly to enforcement officials to define the effective scope of the law. In ruling on cases under the Gun Control Act, the courts have tended to support the broad language of the statute. They have ruled consistently that a dealer could not escape the federal licensing requirement by restricting his activity to intra-state transaction.<sup>11</sup> And, while the definition of a dealer remained ambiguous, the courts have tended to define the concept very broadly. People who made as few as four transactions, or who simply stated to undercover police that they dealt in guns have been considered dealers under the meaning of the act.<sup>12</sup> Prosecutors and enforcement officials have been somewhat looser than the courts. They have adopted a crude rule of thumb based on the number of transactions per year: anyone making more than five gun sales a year is a dealer; anyone making five or fewer is not a dealer.<sup>13</sup>

Note that in adopting this guideline, the prosecutors have, in effect, created a new legitimate supply sector. The sector includes everyone who makes fewer than 5 intra-state transactions per year. It will be identified as the "private sale sector." This sector is potentially very important to gun control efforts for two reasons. First, since the requirements of the gun control act apply to federal licenses, these private dealers are not bound by the same legal requirements as the licensees. In principle, they can sell to felons, drug users, mental defectives, or minors. Second, since these private dealers cannot be easily identified or closely observed, they may be able to hide a very high level of activity behind their "legal" right to make as many as five transactions per year.

The second circumstance contributing to unlicensed selling is the disinclination of dealers who are both obligated and qualified to be licensed to become so. Their disinclination could result from ignorance, or a deliberate decision to take advantage of the newness of the law, the ambiguity of the obligations, and the limited enforcement capability of the federal government to avoid their legal obligations.<sup>14</sup> While such dealers are technically in violation of the laws (and face criminal penalties for their negligence), they differ from black market firms. They have legitimate sources of weapons. They make no effort to conceal their business. Their guns are not specially tailored to the demands of illegal use. They would be qualified to own a federal license. And they are no more likely than federally licensed dealers to sell handguns to people who use them in crime. In effect, they are federal licensees who have not yet taken the trouble to secure their license. We will call this the "Scofflaw sector." Note that the

"Scofflaw sector" shades into the "private sales sector" -- particularly for those "private dealers" who make substantially more than 5 sales per year. Indeed, establishing this difference is usually the most important legal struggle in prosecuting cases.

These three sectors (federal licensees, private sales, and scofflaws) constitute the "commercial" sectors of the supply of handguns. While the "firms" within these different sectors vary in size and legal status, they all advertise openly, sell handguns, and maintain legitimate sources of guns. The commercial aspects of these sectors insure that they will contain a large fraction of the handgun exchanges. However, there are major sources of handguns beyond these commercial sectors.

First, the large stock of handguns currently in the hands of private, unlicensed owners can reach new people through mechanisms other than private commercial sales. Guns can be lent by private owners to acquaintances, close friends, or relatives. Or, they can be stolen in the course of an ordinary burglary or by someone specifically seeking a gun. The lending of guns will be identified as the "hand to hand sector," and the theft of guns from private owners as the "theft sector."

One might overlook the potential importance of these sectors in supplying handguns to criminals. The "hand to hand sector," constrained as it is to acquaintances of current owners, might seem sufficiently distinct from criminal populations to lessen its importance as a source for criminals. The "private theft sector" might seem close enough to criminals, but too small to be important. In fact, neither observation is correct. One only has to recall that there are roughly 40 million handguns in private hands, that each individual has a rather large circle of acquaintances, and that there is nothing to prevent a handgun from

being lent or given several different times to see that this "hand to hand sector" can be very large and easily reach the peripheries of criminal populations.<sup>15</sup> Similarly, if current surveys of gun ownership are roughly accurate (e.g., 19% of the households own a handgun); and if households with guns are likely as households without guns to be burglarized (e.g., % of the households are burglarized); and if burglars take guns as eagerly as electric appliances, then burglaries can generate a flow of handguns each year.<sup>16</sup> This is about % of the estimated illicit demand for guns. Thus, both sectors are potentially important in supplying handguns to criminals.

Second, there are wholly illicit black market firms.<sup>17</sup> These dealers resemble "scofflaws" in that they deal without a license. They differ from the scofflaws in that they would not be qualified for a federal license, have no legitimate sources for the guns they sell, seek to obscure the origins of the guns they obtain, and seek to conceal their gun dealing activities from public view. Since these firms sell a distinctive product (guns whose origins are obscure), charge a high price to compensate them for the risk of illegal dealing, and seek to conceal their activities, these firms will be patronized primarily by illicit consumers. Only these customers are willing to absorb the higher prices and inconvenience of the black market firms.

Table 3 summarizes relevant characteristics of the different supply sectors that have been identified.

### C. Different Markets for Handguns

It is tempting to think that a systematic relationship will exist between the types of consumers and the sources of supply. Legitimate consumers ought to cluster in the legitimate commercial sectors. Illicit

Table 3

Characteristics of Sectors Supplying  
Handguns to Individuals Who Want Them

Supply Sector	Commercial Sector			Private Possession Sector		Black Market
	Federal Licensees	"Scafflaws"	Private Sales	Hand to Hand Sector	Thefts From Private Owners	
Chara- teristics of Firms in Various Sectors						
Sources of Guns	Licensed Man- ufacturers & Wholesale Dealers	Licensed Man- ufacturers & Wholesale Dealers	Licensed Re- tail Dealers: Previous Possession	Licensed Re- tail Dealers: Previous Possession	Licensed Retail Dealers: Pre- vious Possession	Primarily Il- legal Sources: Fraudulent Purchases
Volume of Transactions Per Year	Large	Large	5 per year	?	?	?
Legal Status of Firm	Legitimate	Technical Violation (No License)	Legitimate	Legitimate	Legitimate	Illegal (often violated sev- eral statutes)
Kind of Transaction	Sale	Sale	Sale	Loan; Gift	Theft	Sale
Marketing Procedures	Open Advertising	Open Advertising	Open Adver- tising; Word of Mouth	Primarily Word of Mouth--Drug Intimates	N.A.	Word of Mouth Within Under- world
Share of Total Market	Possibly Large	Small and Decreasing	?	?	Can be large	?

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Characteristics of Firms in Various Sectors						
Sources of Guns	Licensed Manufacturers & Wholesale Dealers	Licensed Manufacturers & Wholesale Dealers	Licensed Retail Dealers: Previous Possession	Licensed Retail Dealers: Previous Possession	Licensed Retail Dealers: Previous Possession	Primarily Illegal Sources: Fraudulent Purchases
Volume of Transactions Per Year	Large	Large	5 per year	?	?	?
Legal Status of Firm	Legitimate	Technical Violation (No License)	Legitimate	Legitimate	Legitimate	Illegal (often violated several statutes)
Kind of Transaction	Sale	Sale	Sale	Loan; Gift	Theft	Sale
Marketing Procedures	Open Advertising	Open Advertising	Open Advertising; Word of Mouth	Primarily Word of Mouth--Drug Intimates	N.A.	Word of Mouth Within Underworld
Share of Total Market	Possibly Large	Small and Decreasing	?	?	Can be large	?

consumers ought to restrict their purchases to the black markets.

To some extent, this is the way things work out. It is fairly likely that black market firms will be patronized almost exclusively by people who are not entitled to own handguns, or who may be entitled to own a handgun, but do not want a gun that can be easily traced. It is also fairly likely that wholly legitimate consumers will restrict their buying activity to the three legitimate (or quasi-legitimate) commercial sectors.

However, the major conceptual (and substantive) problem with this tidy view of the world is that the illicit demand for handguns need not be restricted to the black market sector. Indeed, reflection shows that the illicit demand for handguns can be satisfied by several devices. Obviously, people who are legally entitled to own a handgun (but intend to use it in a crime) can penetrate the federal licensee sector easily, to say nothing of the other commercial sectors. Indeed, even people who are prohibited from owning a handgun can penetrate the federal licensee sector through theft, fraudulent purchases, illegal sales covered as fraudulent purchases, or the use of a "broker."<sup>18</sup> Moreover, given that the remaining commercial sectors are essentially unregulated, these sectors are vulnerable to both prohibited and legally entitled but badly motivated purchases. Access to the hand to hand sector is restricted only by the proximity of a friend, acquaintance, or relative who owns a gun. Access to the private theft sector is limited only by a person's burglary skills, and his knowledge of the location of handguns. Given the vulnerability of all the supply sectors to penetration by illicit consumers, we can by no means guarantee that the illicit demand will be restricted to black markets.

Table 4 summarizes the several devices available to different kinds of consumers to secure handguns. In an ideal world, we would know the relative sizes of these different flows. In this world, we are limited to some rough guesses about the size of the various sectors based on a few very crude studies.

We can begin with our previous estimates of the illicit demand for guns. Based on different assumptions about the working life of a gun, and relying on 1974 data on the level of handgun crime, we estimated that somewhere between 100,000 and 350,000 handguns were used for illicit purposes.

The next step is to establish some estimates of the size of the different supply sectors. Data currently available from ATF on the number of handguns domestically produced or imported indicate a flow of some 1-2 million handguns per year through the commercial sector -- with the vast proportion moving through federal licensees and scofflaws. Estimating the flow from the stock of privately owned handguns is much more difficult. Zimring estimates that the 25-40 million handguns are currently privately possessed in the United States.<sup>19</sup> The question is what fraction of these change hands through sale, borrowing, gifts, or theft. We do not know.

The last step that can be taken now is to make a rough estimate of the relative sizes of the flows to the illicit sector by relying on a small pilot study by ATF (Project 300) that traces the guns not only to the last sale by a federal licensee, but also through the private sale, hand to hand, and theft sector. Unfortunately, the study is flawed for our purposes.

First, it is not clear what constitutes a "crime handgun" for the purposes of this study. The sample was drawn from a subset of guns

Table 4

Mechanisms By Which Different Kinds of  
Consumers Can Secure Handguns  
From Different Supply Systems

Supply Sectors	Commercial Sector		Private Possession Sector		Black Market
	Federal Licenses	"Scafflaws"	"Private Sales"	"Hand to Hand" Sector	
Demand Sectors					
I. Wholly Legitimate Demand	• Legal Sale	• Legal Sale	• Legal Sale	• (Borrowed) (Gift)	
II. Illicit Demand					
A. Legally Entitled [Kinds of Transactions]	• (Legitimate Sale) (Fraudulent Purchase) (Illicit Sale) (Theft) (Brokering)	• (Legitimate Purchase) (Fraudulent Purchase) (Illicit Sale) (Brokering)	• (Legitimate Sale) (Fraudulent Purchase) (Illicit Sale) (Brokering)	• (Borrowed) (Gift) (Theft)	• (Sale)
B. Prohibited Persons [Kinds of Transactions]	• (Fraudulent Purchase) (Illicit Sale) (Theft) (Brokering)	• (Fraudulent Purchase) (Illicit Sale) (Brokering)	• (Legitimate Sale) (Fraudulent Purchase) (Illicit Sale) (Brokering)	• (Borrowed) (Gift) (Theft)	• (Sale)

submitted for tracing. Not all guns submitted for tracing were involved in a crime. Moreover, some that were involved in a "crime," were involved only in a "weapons" offense -- not a property or violent crime carried out with a handgun. Thus, the sample of handguns being analyzed fails to correspond precisely to our definition of the illicit demand for handguns.

Second, in selecting the sample of handguns to be traced, several biases were introduced. The first was that no guns that were reported stolen were included in the sample. This led to a systematic underestimation of the importance of thefts from the commercial sector and private individuals in supply crime handguns. Since we know from previous studies that about 6-9% of the guns used in crime were reported stolen, we can correct for this bias. However, we cannot currently distinguish thefts from licensed dealers from "private thefts." The second source of bias was to exclude guns that did not move in interstate commerce or could not be traced to a licensed retail dealer. This bias effectively excluded the "scofflaw sector." Thus, not all of the possible supply sectors were included in the study.

Third, it proved impossible to trace many guns. Fully one third of the guns were "lost." They could not be traced beyond a certain point. While there is a presumption that these lost guns ended up in criminal activity through the private sector or the black market, we do not really know.

Thus, Project 300 as currently reported is of limited value to our current investigation. We may be able to extend its value by re-analyzing the raw data, but re-analyses will not eliminate the problems introduced by the biases in the selection of the sample or the fact that some guns cannot be traced. Still, since Project 300 is the only current source of information about the final sources of guns to people who use them in crimes, we are bound to rely on it.

Table 5 presents rough estimates of: (1) the final sources of guns submitted for tracing; and (2) the final sources of guns among those arrested with guns as reported in Project 300.<sup>20</sup> Based on these observations adjusted for known biases in the sample, some very rough estimates of the final sources of guns used in crimes are offered.

Table 6 combines the various bits of information in an overview of the entire handgun market. Obviously additional empirical investigation is desperately needed. However, based on both the qualitative and quantitative analysis, the following conclusions seem appropriate.

- First, the illicit demand for guns is very small in terms of both the flow of new guns through the commercial sector and the stock of guns currently in private possession.
- Second, the illicit demand for guns is supported by many sectors in addition to the black market.
- Third, thefts of guns from both commercial and private possession sources constitute a major supply of guns to the illicit sector. Some of these thefts go directly into the hands of offenders, others reach offenders through black market firms.

### III. Gun Control Policies and Instruments

The major objective in the design of gun control policies is to find instruments which are effective in controlling the sources of handguns to people who use them in criminal activity. It is easy to assume that this means nothing more than reducing the supply of handguns to known criminals. Moreover, given existing federal controls over dealers

Table 5  
Rough Estimates of Final Sources  
of Guns Used in Crimes

	Commercial Sector				Private Possession Sector			Black Market
	Federal Licensees		Schofflaws	Sales	Hand to Hand	Theft	Lost	
	Sale	Theft						
I. Guns Submitted for Tracing (N = 300)	50	10	34	38		56	109	
%	17%	3%	11	13%		19%	36%	
II. People Arrested With Guns (N = 134)	50							
%	37%							
III. Rough Estimates	20%	5%		10%	5%	20%	30%	

Source: ATF Project 300

Table 6

Rough Estimates of the Magnitude of Guns  
Flowing From Different Sources for  
Different Kinds of Consumers

Sources of Supply	Commercial Sector				Private Possession Sector			Black Market	TOTAL
	Federal Licensees		Scofflaws	Private Sales	Hand to Hand	Theft			
	Sale	Theft							
I. Legitimate Consumers									
A. Continue Possession		↔ N.A. ↔		↔ 25 to 40 million ↔			?	25 to 40 million	25 to 40 million
B. New Purchasers		0.9 to 1.9 million		?	?	N.A.	N.A.	0.9 to 1.9 million	0.9 to 1.9 million
II. Illicit Demand	20-60 thou- sand	5-15 thou- sand	10 - 30 thousand	10 - 30 thousand	5 - 15 thousand	20 - 30 thousand	30 - 60 thousand	100 to 300 thousand	100 to 300 thousand
III. Black Market	?	?	?	?	?	?	?	30 to 60 thousand	30 to 60 thousand
TOTAL		1 to 2 million			25 to 40 million		30 - 60 thousand	26 to 42 million	26 to 42 million

which prohibit interstate sales of all kinds (except among federal licenses) and even intrastate sales to criminals, drug users, and people less than 21 years old, it might be easy to assume that the problem was really limited to the elimination of interstate black markets in guns. The analysis presented above suggests that the problem is much more complicated than this simple view. Handgun offenses may be committed by individuals who are not "known criminals"; and "known criminals" have opportunities to obtain handguns from many places other than interstate black market firms.

Table 7 illustrates the potential reach of different gun control policy instruments. Arrayed across the top are the different components of illicit demand, and the potential sources of guns. Arrayed down the side are commonly proposed adjustments in our current gun control policy. The alternatives range from inexpensive, marginal adjustments to quite costly, radical changes. Inspection of Table 7 suggests the following observations about the potential of gun control instruments to control handgun crime.

First, some component of the handgun crime problem will result from legitimate purchasers who purchased a handgun many years ago and eventually used it in a criminal offense. This component of handgun crime is out of reach of all policy instruments except confiscation or "buy-back" policies. Consequently, this component of the handgun crime problem is likely to be an irreducible core.

Second, some component of the handgun crime problem will result from legally entitled purchasers buying a gun with the specific intention of committing a crime. Some portion of assaults, murders, and robberies will be of this type. Moreover, no improvement in enforcement of existing rules

Table 7

The Potential Scope of Gun Control  
(Supply Reduction) Instruments

Sources of Guns Used in Crimes	Illicit Demand for Handguns													
	Legally Entitled Consumers							Prohibited Consumers						
	Commercial Sector				Private Possession			Commercial Sector				Private Possession		
Gun Control Policy Instru- ments (Supply Reduction Only)	Licenses Legit Sale	Theft Sale	Scofflaws Ill. Sale	Theft Sale	Hand to Hand	Black Market Sales	Licenses Legit Sale	Ill. Sale	Scofflaws Legit Sale	Ill. Sale	Theft Sale	Hand to Hand	Private Possession Hand to Hand	Black Market Sales
I. Greater Efforts W/in Existing Statutes														
A. Federal Regulatory														
1. Pre-license Investment														
2. Compliance Investment														
3. Patrol Gun Advertisers														
B. Federal Criminal: Under- cover Operations Against Black Markets														
C. State and Local Criminal: Undercover Operations														
II. Requiring New Legislation														
A. Licensing All Dealers														
B. Licensing Owners														
C. Security Requirements: Dealers														
D. Security Requirements: Owners														
E. Quotas and Bans														
F. Confiscation and Buy Back														
III. General Anti-Burglary														

will reduce this activity. Restrictions on ownership or "waiting periods" would be necessary to have an impact on this crime sector, and even these instruments will have a marginal effect.

Third, some component of the handgun crime problem will result from prohibited persons obtaining a handgun from the federally licensed sector through fraudulent purchases or illicit sales. Some stiffening of existing regulatory enforcement efforts might reduce this activity. But there are clear limits to how much this leak can be reduced. And even a very small leak can turn out to be large in terms of the illicit demand for guns.

Fourth, a significant component of handgun crime is likely to be supplied through private sales or the hand to hand market. This source cannot be controlled under existing federal statutes. Insofar as this sector involves sales to persons prohibited from owning guns under state or local laws, state and local agencies may be able to take effective action against this sector.

Fifth, a significant component of handgun crime will be supported by thefts from both commercial and private possession sectors. Under current laws, this sector can be controlled only through general anti-burglary strategies. Theoretically, this sector could also be controlled by imposing security requirements on both commercial and private handlers of handguns.

Sixth, some component of handgun crime will be supported by black markets. Note that the black markets themselves will be supported by the various leaks identified above. Consequently, successful control of these levels may be necessary and sufficient to control black markets as well as direct penetration of legitimate sectors by criminals. However, in addition, black markets can be controlled through federal, state and local criminal enforcement efforts against illegal gun dealers.

Note that in considering which policy instruments ought to be added (or extended) to reduce handgun crime, it is not sufficient to look at the current importance of the different supply sectors. That is, if black markets currently account for 30% of the handguns used in crime, and we develop an instrument which eliminates the black market, we cannot count on a 30% reduction in handgun crime. The reason is that the different supply sectors can substitute for one another. If the black market is reduced in size, other sectors may pick up some of the previous demand. The implication of this observation is that there are important interdependencies among the control instruments. Consequently, in designing a control strategy, one should be thinking of reducing the equilibrium size of the market of handguns through the management of a portfolio of control instruments. One should not be thinking in terms of eliminating a particular source of supply.

Note also that since the existing stock of handguns in private possession can easily be converted into large flows to illicit markets, there is a limit to what can be accomplished with control instruments directed at the flow of guns through commercial sectors. Even if one succeeded in closing leaks from the commercial sector entirely through a complete ban on new production and imports, the existing stock of handguns could support a significant amount of illegal activity for many years until the "working lives" of the guns were entirely consumed. Thus, there are significant limitations not only for existing control instruments, but also for policies that are often considered extreme proposals.

FOOTNOTES

1. Franklin Zimring, "The Medium is the Message: Firearm Caliber as a Determinant of Death from Assault," 1 Journal of Legal Studies 97 (1972).
2. George D. Newton and Franklin Zimring, Firearms and Violence in American Life, National Commission on the Causes and Prevention of Violence, 1969.
3. This situation is analogous to many other areas of social policy such as drug use, driving, gambling, and industrial production. In all these cases, the general activity has some valuable (or at least unobjectionable) aspects. But the activity also has potential for dangerous abuse. We seek to preserve the valuable parts and minimize the costly aspects through a process of "regulation." The regulatory strategy takes the form of establishing rules prohibiting "abuses" or dangerous forms of the activity, or restricting the people who may engage in the activity to those who are judged to be competent and responsible, or "jawboning" and education to encourage greater responsibility in the various activities. I sometimes wonder why these parallels have not been noticed, and why we are not now worried about "car control" in the same way we are worried about "gun control."
4. See below, p. 15.
5. The distinction between expressive violence and contingent violence rests on the value of violence to the offender. It is expressive violence if the violence itself has value to him. It is contingent violence if he is using the threat of violence to extract something of value from his victims. This seems to capture some of the differences between assault and robbery.

6. In the language of economics, we are distinguishing consumers who are currently on the margin of gun ownership from those who are well within the margin.
7. The "working life" of a handgun is defined as the number of criminal offenses in which it was used. This is a key concept for any analysis of gun control instruments since it provides some clue about the potential crime reduction value of reducing the availability of guns. We currently have no good empirical estimates of this number. One might assume that the working life depended primarily on how often the gun was fired rather than how often it was shown. Since guns are usually shown other than fired in armed robberies, and since individual armed robbers are likely to engage in many offenses, I assume a larger working life of a handgun is robbery than is assaults or murders.
8. Note that these numbers look much different if one calculates guns used in crimes as a fraction of the flow of guns (i.e., the total number of guns that change hands each year) rather than the stock of guns. Studies of crime guns by Franklin Zimring indicate that many are relatively new and therefore relatively likely to have been involved in a retail sale. If we assume that half the crime guns were purchased new, and that annual retail sales are about 1.2 million, then one can say that approximately 13% of the guns sold in 1975 were used in a crime. This suggests that even moderately effective control over retail sales could have an important impact on crime. Unfortunately, one should anticipate that if retail sales were slowed, other sources of guns might become available. While there might still be some gains from controlling retail sales, they would be partially offset by adjustments in other sources of supply.

9. Title 18, United States Code, Chapter 44, Section 922.
10. One might think the intrastate sector would represent only a tiny fraction of all gun exchanges. In fact, two pieces of information indicate that this sector is potentially large. First, a report by the House Committee on the Judiciary on the Federal Firearms Act of 1976 presents a map showing the location of manufacturers and wholesale dealers in the United States. Each state has at least several. Consequently, it would be possible for many dealers to obtain a gun without relying on interstate sales. Second, in tracing 11,000 firearms, ATF reported that fully 5,000 had not moved in interstate commerce. Thus, the intrastate sector is potentially large and significant.
11. Annotated U.S. Code.
12. Ibid.
13. Private communication with officials of the Department of Justice and the Bureau of Alcohol, Tobacco, and Firearms (ATF).
14. In F.Y. 1975, ATF completed 11,000 compliance investigations. If the population of licensees remains at above 100,000, the average firm will be investigated about once every 10 years.
15. The estimate of 40 million handguns has been made by Franklin Zimring. The role of the hand to hand sector is highlighted by ATF's Project 300, a detailed tracing of handguns used in crime. About 85% of the second owners of guns who were arrested with the gun received their gun from friends or relatives. See "ATF Fact Sheet: Project 300 Study," p. 2.
16. I am indebted to Philip Cook for the idea of this calculation. The calculation assumes that houses with guns are as likely to be

burglarized as houses without guns, and that the gun will be found. One can obviously make more conservative assumptions in this area. For example, we can assume that houses with guns are only about 50% as likely to be burglarized, and that there is only a 25% chance that the gun will be found. This yields an estimate of \_\_\_\_\_ guns available from burglaries. This still represents \_\_\_\_\_ % of the likely illicit demand for guns.

17. We are currently engaged in a survey of Black Market firms encountered by ATF undercover agents. Preliminary findings suggest that the firms are very small, and supported by combinations of thefts from firms and individuals, legitimate purchases, and private sales.
18. The idea of a "broker" is simply a person who is legally entitled to own a gun and is recruited by someone not legally entitled to purchase a gun and re-sell it to the illegal person. We see this commonly in trying to control legitimate drugs.
19. 40 million estimate made by Franklin Zimring.
20. By final source, I mean the last source prior to the crime.