COUNTERMARKETING AND DEMARKETING AGAINST PRODUCT DIVERSION:
FORENSIC RESEARCH IN THE FIREARMS INDUSTRY

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Few marketing problems in society lead to the tragedy of harm that can result when firearms are
diverted from the legal to the illegal marketplace. Product diversion is itself a serious concern for
marketers, especially marketers of potentially dangerous products such as tobacco, alcohol,
firearms, and pharmaceuticals. These products may be sought and obtained by consumers
occupying illegal markets, or intent on using them for illegal purposes, leading to adverse
consequences for other consumers, marketers and society at large. Drawing on established
marketing principles and accepted methods of forensic research, this paper reports on a large-
scale study of the diversion of handguns in the U.S. and the countermarketing and demarketing
efforts of firearm marketers to safeguard against its occurrence through their distribution
systems. The findings suggest that: (1) significant diversion of handguns to illegal markets
occurred in the U.S. during a recent period, (2) industry marketers varied widely in their use of
safeguards against this diversion, but on average engaged in few countermarketing and
demarketing measures, and (3) the safeguarding efforts engaged in were found to both reduce
diversion and its resultant crimes. The study and its findings help to inform understanding of the
nature and effects of firearm diversion and the use of countermarketing and demarketing
safeguards to reduce its occurrence. The study also demonstrates the use of data and data
collection methodologies from the legal process to inform questions about marketing including
controversial aspects of its practice. Overall, the research adds to extant thinking concerning
countermarketing and demarketing as well as the related areas of social marketing, corporate
responsibility and public health.

INTRODUCTION

Controversy Over Firearm Diversion

Product diversion involves the distribution of products into markets other than originally
intended in violation of a contract, law or regulation. Diversion is also variously known to
marketers as unauthorized and unofficial distribution, parallel distribution or importation, and
involving gray (i.e., legal) and black (i.e., illegal) marketing. Diversion is a concern for
marketers of consumer products (e.g., CD’s, personal computers, cell phones, cameras, designer
clothes, perfumes, watches, foods), durable goods (e.g., construction equipment, automobiles)
and some intangibles (e.g., broadcast signals). Diversion is an especially serious concern for
dangerous or otherwise potentially harmful products such as tobacco, alcohol, firearms and some
pharmaceuticals. These products may be obtained by consumers occupying illegal markets
and/or intent on using them for illegal purposes, thus leading to adverse consequences for consumers, marketers and society at large.

One product that has drawn considerable attention for its diversion is firearms and more particularly, handguns. New guns diverted from lawful channels of distribution have long been known to be an important source of firearms used in crime (Zimring 1975, 1976, BATF 2000a). Surveys of prison inmates reveal a significant portion of the guns they had used were new guns that had been purchased from a retail gun dealer (Scalia 2000, see also Harlow 2001). Newer guns are reportedly sought by criminals to avoid the risk of possessing a gun that could be linked to other crimes, because they are perceived as less likely to malfunction in use, and because some accept high-capacity detachable magazines for enhanced firepower (Webster, Freed, Frattolli, and Wilson 2002; Brady Center 2007). Also, purchases of used guns in the secondary market can have high search costs (Cook et al 2007).

Based upon “trace” studies, significant diversion of handguns has been shown to occur. One major study, for example, found that at least 15% of the handguns produced or imported to the U.S. in 1995 (315,000 of the 2.1 million) were used in a crime within five years (Brady Center 2007, Cook and Braga 2001). In another study, guns manufactured between 1996 and 1998 were found to represent nearly 14 percent of guns in private hands, but account for 34 percent of guns recovered and traced to crimes in 1999 (Pierce et al 2001). Trace studies generally understate the true occurrence of firearm diversion given they reflect only guns that have been recovered and successfully traced, and do not reflect crimes that were not solved, or for which the handguns used were not recovered.

Reduction of Firearm Diversion: A National Goal

The relationship of product diversion to crime has led policymakers to declare the reduction of firearm diversion a national goal. Diversion’s ensuing harms – including violent
crime, injuries, death, fear and anxieties, and associated economic costs – are a major threat to society. For example:

- From 1996 to 2005 nearly 5 million violent crimes were committed with firearms in the U.S. (Brady Center 2007).
- Nearly 30,000 people die from firearms annually (Brady Center 2009).
- In economic terms, the derivative costs of firearm violence are estimated to exceed $100 billion annually (Cook and Ludwig 2001).

It is also the case that violent gun crime is again now increasing, reversing a downward trend from 1997 (Brady Center 2007). Heightened concern for firearm diversion has also been evident during the post 9-11 era, as diverted firearms can provide a handy source of weapons for terrorists on the domestic front (Brady Center 2001). For example, documents seized from a radical Islamic terrorist organization in Afghanistan singled out the U.S. for its easy availability of firearms, providing detailed instructions to al-Qaeda members in the U.S. in how to obtain firearms through diversion without arousing suspicion (Brady Center 2001). Most recently, diverted firearms in the U.S. have been identified as a significant source of weaponry by drug cartels in Mexico, whose members have been obtaining guns in the U.S. and then smuggling them back across the border (Jervis 2009).

Despite important steps, efforts to stop firearm diversion by law enforcement and other governmental entities have been unable to halt its occurrence. In search of solutions, citizen and government stakeholders have increasingly focused on the role firearm manufacturers and distributors could play in safeguarding against diversion occurring in their own retail distribution systems. For example, in the last decade various stakeholders harmed by gun crimes (e.g., cities, municipalities, the NAACP and others) have sought to define and enforce this safeguarding role through a series of high-profile lawsuits in Federal court. Industry trade associations and law enforcement have also collaborated to prevent and discourage diversion
from occurring through specific types of illegal transactions. Most recently, concerned mayors of cities from across the country have formed a working coalition to address firearm diversion, and Federal legislation has also been proposed to address various loopholes in the firearms distribution system through which diversion is known to occur. As well, ongoing efforts by grassroots organizations have increasingly focused on the firearms distribution system, with one organization recently announcing a multi-year effort to reduce diversion occurring through licensed gun dealers.

**A Significant Constraint: A Lack of Information About Marketing Efforts**

To date, however, all of these efforts have been hampered by a lack of information about the actual actions of marketers in relation to the problem (see Adams 2004). A recent review of market-based (including marketers’) efforts to reduce firearm diversion, conducted by the National Research Council (2005), concluded:

“Little is known about the potential effectiveness of a market-based approach to reducing criminal access to firearms. Arguments for and against such an approach are based largely on speculation rather than research evidence. There is very little of an analytic or evaluative nature currently available in the literature on market interventions.”

At a basic level, little information about marketer behavior is available. In addition, access to relevant information has been made difficult through so-called “Tiahrt Amendments” to federal spending bills that restrict the availability of crimegun statistics and other relevant information on the sources of guns used in crime. In this respect, a major element of the cited lawsuits by cities, municipalities and others has been to utilize the court system to gain information and data about marketer practices that has otherwise been unavailable.

As a basis for informing ongoing inquiry into the role of marketing and marketers in addressing the problem of firearm diversion, this paper reports on a large-scale study of the firearms industry. Relying upon data collected through the rigors of the legal “discovery”
process, it provides insights into the safeguarding practices of a national sample of firearms manufacturers and distributors in relation to firearm diversion occurring through their retail distribution systems. These insights will help to inform the various initiatives just described, as well as future actions likely to result in response to the Supreme Court’s 2008 ruling addressing Second Amendment rights concerning firearms (District of Columbia v. Heller 2008). Given that this study provides information not previously available, it should be of substantial interest to a broad range of stakeholders as they strive to balance marketer freedoms, citizen rights and public safety in relation to the problem of firearm diversion. The study is also of significant interest due to its use of data collection methodologies within the legal system to inform questions about marketing, including controversial aspects of its practice. Overall, the study adds to extant thinking concerning countermarketing and demarketing as well as the related areas of social marketing, corporate responsibility and public health.

**PRODUCT DIVERSION OF FIREARMS**

As a form of product diversion involving black markets, firearm diversion is defined by law enforcement to include “any movement of firearms from the legal to the illegal marketplace through an illegal method or for an illegal purpose” (BATF 2000a). Certain classes of consumers compose the illegal marketplace and are prohibited by law from possessing firearms, by sale or transfer. Diversion can also result when an otherwise legal consumer obtains a firearm through an illegal method or with the intention of using it for an illegal purpose.

**The Distribution System for Firearms**

The manufacture and distribution of firearms in the U.S. is federally licensed and typically multi-tiered, with manufacturers selling to wholesale distributors who sell to a far-reaching dealer network who then sell to the public (Paumarck 1992). Firearms distributed and sold through some 55,000 federally licensed dealers (FFLs) constitute the “primary” market
Approximately 4.5 million new firearms, including about 2 million handguns (BATF 2000a), are sold each year. A “secondary” market comprised of transactions by unlicensed persons also exists and involves previously owned (i.e., used) guns. Relying on household survey data, Cook and Ludwig (1997) estimate that approximately 2 million transactions per year occur in the secondary market. Primary and secondary firearms markets are closely linked, given that almost all firearms in the secondary market have their origins in the primary market.

Diversion of handguns from legitimate marketing channels has been shown to be an important source of guns used in crime. According to the Bureau of Alcohol, Tobacco, Firearms and Explosives ("BATF" and "ATF"), “unlike narcotics or other contraband, the criminals’ supply of guns does not begin in clandestine factories or with illegal smuggling” (BATF 2000c).

Studying the sources of guns used in crime, according to one researcher (Wachtel 1998, p. 234):

“Instead of a market predominantly comprising petty criminals selling stolen guns, we encountered a setting rich with licensed and unlicensed entrepreneurs who bought guns directly from licensed sources in order to satisfy their customers’ craving for new, large caliber pistols. Episodes of large scale, commercialized gun diversion seemed commonplace.”

**Role of Retail Firearms Dealers**

Within the primary market, federally licensed retail firearms dealers are known to play an important function in firearm diversion (Brady Center 2007). According to then ATF Director Stephen Higgins (Higgins 1993) in testimony before Congress:

“It is [ATF’s] experience that access to lawful channels of firearms in commerce is overwhelmingly attractive to criminals. Quantity and selection that cannot be provided consistently by house burglaries can only be obtained through the retail markets.”

More recent testimony by the former Chief of ATF’s Crime Gun Analysis Branch confirms these early observations: “The most important single source of firearms for the illegal market is still illegal traffickers who are acquiring firearms from retail outlets” (Vince 2005).
Considerable evidence suggests that a small percentage of dealers are the source of these guns. One ATF study, for example, found that approximately 60 percent of the guns traced to crime had origins with only about 1 percent of the nation’s gun dealers (BATF 2000a). Another report found that 1160 dealers or approximately one percent of the more than 100,000 dealers in 1998 were the source of 34,626 crimeguns -- 45% of the guns used in crime during the year and successfully traced to dealers (Schumer 1999, p. 1, see also Brady Center 2007). Although it has been argued that the number of crimeguns traced to a retailer is influenced by their sales volume and retail gun sales have been shown to be concentrated (Federal Bureau of Investigation 2000), other studies have provided evidence that the number of guns sold is an inadequate predictor of the number of guns subsequently linked to violent and firearm related crimes (See Wintemute et al. 2005; Wintemute 2000).

**Six Primary Pathways of Retail Firearm Diversion**

Recent research, based upon marketing channel and retail management, identifies six primary pathways for retail firearm diversion (Bradford, Gundlach and Wilkie 2005):  

*Unscrupulous/Corrupt Dealers.* Despite reflecting a small proportion of the retail institutions selling firearms, unscrupulous and/or corrupt licensed firearms dealers are considered a major source of diverted firearms. These include dealers that are directly allied with criminals to engage in illegal sales (e.g., Spiegler and Sweeney 1975) or those otherwise willing to sell ‘under the counter’ to prohibited purchasers. A recent study of firearms dealers in the 20 largest U.S. cities, for example, found that more than half were willing to sell a handgun even when it would be illegal to do so (Sorensen and Vittes 2003). Industry associations and executives have also testified as to their awareness and concern for unscrupulous/corrupt dealers. Unscrupulous/corrupt dealers have been shown to be the source of nearly half of all guns that are trafficked (i.e., intentionally diverted from legal to illegal commerce) (BATF 2000c; Wintemute et al. 2005).

*Nonstore/Nonstocking Dealers.* Some licensed firearms dealers sell guns out of their homes, automobiles, in person, and from other nonconventional store venues that do not stock firearms (Wachtel 1998). Known as “car trunk dealers,” “kitchen table dealers,” or “basement bandits,” dealers employing nonstore/nonstocking formats have been shown to be a major pathway for guns used in crime (U.S. General Accounting Office 1996). According to one ATF (BATF 2000a) study involving a random sample of 1530 trafficking investigations, 23 percent involved non-store dealers.
**Gun Shows.** A particular type of nonstore/nonstocking venue, gun shows are also a key pathway for firearms used in crime (U.S. Department of Justice 2001). Over 4000 gun shows are advertised in the U. S. each year, with many extending over several days, drawing 2500–5000 persons, and including both licensed and unlicensed sellers. The atmosphere is casual: sellers rent table space, with 50–2000 tables in use depending on show size. According to an ATF (BATF 2000b) study, 31% of diverted firearms are purchased at gun shows.

**Strawpurchases.** A further pathway for diversion involves transactions conducted as strawpurchases, where a legal buyer illegally purchases a gun on behalf of another person who is legally prohibited from buying the firearm (due to age, criminal record, etc.). The cumulative impact of strawpurchases on crime is substantial, accounting for 31% of diverted firearms, according to an ATF study (BATF 2000c, Cook, Molliconi, and Cole 1995).

**Multiple Sales.** Diversion has also been found to be more likely indicated through lawful transactions involving “multiple sales” and defined as the purchase of two or more handguns by an unlicensed person within a 5 day period. According to a Federal study, multiple sales accounted for 22 percent of handguns that were first sold at retail in 1999, then also traced from a crime that year (U.S. Department of Treasury 1999, U.S. Department of Justice 2000, BATF 1999). A separate ATF tracing study further showed that multiple sales are a significant source of guns for juvenile and youth offenders (BATF 1999).

**Theft.** Finally, theft is also a major pathway for diversion, including guns stolen from firearm dealers, common carriers and vehicles transporting firearms, and from homes and individuals. In addition, at times deliberate diversion may be reported as theft (Brill 1977). Under the 1994 Violent Crime and Law Enforcement Act, firearms dealers are required to report thefts or losses of firearms to enforcement authorities within 48 hours. According to ATF (BATF 2000b) 11% of diverted firearms were found to be obtained by theft.

The six diversion pathways thus include select categories of retail *institutions* (i.e., unscrupulous/corrupt dealers), specific retail *venues* (i.e., gun shows, nonstore/nonstocking dealers), particular kinds of *transactions* (i.e., strawpurchases and multiple sales) and *nonmarketing exchanges* (i.e., theft). These pathways can include both lawful and unlawful transactions of firearms and, as noted, are also combinable in different ways.

**Special Problem of “Junk” Guns**
Some types of firearms are more likely to be involved in crime and therefore a special target of diversion. These include handguns generally (versus longguns), and even more so, those handguns known as “junk” guns (a.k.a., “Saturday Night Specials”). Handguns include revolvers and pistols designed to be held and fired with one hand. Junk guns are small handguns that are easily concealable and inexpensive, but often unreliable, inaccurate and poorly made (Vernick, Webster, and Hepburn 1999). In the 1990s these guns were produced in quantity by a small group of manufacturers near Los Angeles, California known as the “Ring of Fire” (Wintermute 1994). According to studies conducted in association with the National Firearms Trafficking Strategy (BATF 1997) handguns are preferred over other types of firearms for use in crime. The top 3 makes of firearms traced from crimes in 1997 were junk guns.

COUNTERMARKETING AND DEMARKETING AGAINST FIREARM DIVERSION

Management of “Unwholesome” Demand

Efforts to address firearm diversion have recently drawn on the marketing principles of countermarketing and demarketing. Advanced over 35 years ago Kotler and Levy’s (1971) conception of marketing management as “demand” management provides the foundation for these concepts. As described by Kotler (1973) and others, in addition creating and maintaining demand marketers may also be at times confronted with “unwanted” demand. This can include too much demand for a firm’s capacity (e.g., a sold-out hotel or airplane, etc.), but also what Kotler calls “unwholesome” demand. Classic examples involve “vice” products -- alcohol, cigarettes, drugs -- where some consumers desire products they are prohibited by law from purchasing, possessing, or using (Kinnear and Frey 1979).

Countermarketing and demarketing

When confronted with unwholesome demand the marketer’s managerial “task” is to engage in countermarketing or demarketing. Demarketing involves discouraging demand in
general or on the part of a certain class of customers, either temporarily or on a continuing basis. Countermarketing, a stronger strategy, involves total repudiation of the relevant demand, as by getting rid of undesirable customers, or preventing certain types of transactions. According to Kotler (1973, p. 56) “unselling [a form of countermarketing and demarketing] has as much social justification in a democracy as does selling.”

**Strategies.** Various strategies for countermarketing and demarketing are proposed -- prices may be raised, product quality, service and promotion reduced and/or convenience altered (Gautier 2001; Gerstner, Hess, and Chu 1993; Harvey and Kerin 1977, Kotler and Levy 1971). Selectivity is a hallmark of these efforts, as they are geared to only portions of the customer base (e.g., Cullwick 1975, Dadzie 1989, Frisbie 1980, Lepisto 1983). Characterizing the types of customers to which countermarketing and demarketing strategies may be directed, Frisbie (1980) and Dadzie (1989), for example, refer to selective demarketing as the strategy of discouraging demand by certain consumers because of their undesirable effects on demand by other consumers. Focusing on the temporary or permanent nature of those strategies that are deployed, Harvey and Kerin (1977, p. 327) classify demarketing as “that aspect of marketing that deals with discouraging customers in general or a certain class of customers in particular on either a temporary or permanent basis.”

**Countermarketing and Demarketing in Action**

Since originally proposed, accounts of countermarketing and demarketing have been widely documented in the literature. It is notable that this work has generally focused on applications directed at consumers, rather than at business channel partners. The prior literature discusses, for example, countermarketing and demarketing strategies to encourage smoking cessation (Messeri et. al. 2006), reduced consumption of alcohol (Beeton and Benifield 2002), energy conservation (Harvey and Kerin 1977), and the management of dysfunctional demand for
healthcare services (Mark and Elliot 1997) and unprofitable demand for banking services (Seymour 1983) among others. Assessments of the effectiveness of these efforts are also specified: these include a “profound impact” on smoking behavior over time (Moore 2005 pp. 703-704) as well as a lack of agreement among executives as to their effects for energy conservation (Harvey and Kerin 1977). Factors influencing the successful application of countermarketing and demarketing include the held strength of values, attitudes and behaviors by those targeted by them (Wall 2007; Mark and Elliott 1977; Frisbie 1980), the credibility of those applying them (Harvey and Kerin 1977), how they are applied (Seymour 1983), if substitutes or alternatives are available (Wall 2007) and whether counter influences are present (Wall 2007).

Countermarketing and Demarketing Against Illegal Demand for Firearms

Consumer-directed strategies to reduce or eliminate illegal demand for firearms have been a hallmark of gun control legislation, law enforcement and other efforts over time. However, as described, despite important steps these efforts have been unable to halt the occurrence of firearm diversion. In search of solutions, stakeholders have expanded their scope to include consideration of the role that firearm manufacturers and distributors could play in safeguarding against diversion occurring through their retail distribution systems. Rather than strategies directed toward consumers, these efforts contemplate the application of countermarketing and demarketing principles to the design and management of a manufacturers’ or distributors’ retail distribution system. As concluded by Bradford, Gundlach and Wilkie (2005, p. 290):

“Given that the problems of firearms diversion involve unwholesome demand arising in various ways within the distribution channels of the firearm industry, the concepts of demand management, countermarketing and demarketing can provide important insights…. [T]he basic elements of channel management … have application because the distribution channel represents a key marketing function through which these concepts could be implemented”
Proposals by Industry Stakeholders

Safeguards against firearm diversion incorporating elements of countermarketing and demarketing applied to the design and management of the retail distribution system for firearms have been proposed by policymakers, industry stakeholders and marketing experts over time. As early as 1975 the ATF Director opined that handgun control should be approached by looking at the source of the guns and how they enter into and remain in circulation; asserting the need to focus on sales transactions (Davis 1975, p. 150). Following on this strategy, during the 1990s, various ATF studies (e.g., BATF 1993) identified the key sources of firearm diversion. Drawing from these studies, “tactics” and “steps” for addressing firearm diversion were identified by others. A 1996 editorial in the Journal of the American Medical Association, for example, commented on emerging findings on firearm diversion opining that “[t]his analysis suggest a variety of possible tactics for reducing availability” and asserting that to “slow the flow of guns into the illicit section, it seems important to put the scofflaw dealers out of business and reduce gun theft” (JAMA 1996, p. 1765). In furtherance of its ongoing efforts, in 2001 the Department of Justice (2001, p. 34) took steps to specifically outline what gun manufacturers and importers could do to limit the risk of diversion within their distribution systems, including to:

“...identify and refuse to supply dealers and distributors that have a pattern of selling guns to criminals and strawpurchases; develop a continual training program for dealers and distributors covering compliance with firearm laws, identifying strawpurchase scenarios and securing inventory; and develop a code of conduct for dealers and distributors, requiring them to implement inventory, store security, policy and record keeping measures to keep guns out of the wrong hands, including policies and postpone all gun transfers until NICS [background] checks are completed.”

At the same time, members of the industry also contemplated how firearm diversion could be addressed. Discussing the ATF report Operation Snapshot (BATF 1993), in a now widely publicized 1993 memo the Marketing Director of a leading shooting sports foundation wrote that, “In our opinion, the new study ‘Operation Snapshot’ can provide not only the thesis
for a constructive proactive position, but also an appropriate and timely framework for industry response” (Painter 1993)  Although now defunct, a 2000 agreement involving Smith and Wesson and various governmental agencies also included agreements on specific distribution and sales controls to limit firearm diversion (U.S. Department of Treasury (2000).  According to the DOJ, the agreement represented that common sense distribution and safety measures were practical and could be embraced by the gun industry as a matter of responsible business practices.  A joint effort of the ATF and the National Shooting Sports Foundation: “Don’t Lie for the Other Guy” also demonstrates the nature of countermarketing and demarketing strategies contemplated within the firearms industry.  Launched in July 2000, the voluntary dealer educational program to deter strawpurchases includes posters, a counter card and mats for retailers, as well as an 8-page brochure educating retailers on what retailers should do (National Shooting Sports Foundation 2009).  As previously identified, Coalitions like the Mayors Against Illegal Guns, advocacy organizations like the Brady Center, the Educational Foundation Against Gun Violence, and academics in public health and related disciplines have also been especially active in identifying and advocating safeguards against firearm diversion.

Proposals From Marketing

The marketing basis for safeguards against firearm diversion, the identification of specific safeguards from other industries and their prospective application within the firearm industry was first identified by Professor David Stewart in Hamilton v. Accu-Tek (1998).  Formal introduction of countermarketing and demarketing to the issue of firearm diversion and the role of firearms’ marketers in safeguarding against its occurrence first occurred in the NAACP’s case against members of the firearm industry (NAACP v. AcuSport, Inc., et. al., 2003).  In their work, grounded in marketing channel theory and information from the firearms industry, Bradford, Gundlach and Wilkie (2005) integrate the principles of countermarketing and demarketing with
key elements of channel management to propose a framework for application against firearm diversion. Despite these efforts, however, to date little empirical evidence has been available that formally describes the application of countermarketing and demarketing principles and safeguarding strategies proposed by policymakers, industry stakeholders and marketing academics over time.

**EMPIRICAL STUDY OF FIREARM DIVERSION AND COUNTERMARKETING AND DEMARKETING IN THE FIREARM INDUSTRY**

To more formally examine countermarketing and demarketing principles and safeguarding strategies in relation to the problem of firearm diversion we report on a major empirical study of their application by members of the firearms industry. Focusing on issues at the center of the ongoing discourse concerning the safeguarding role of firearms marketers, we investigate and provide insights into questions relating to (1) the occurrence of product diversion within the U.S. firearms industry, (2) the use of countermarketing and demarketing safeguards by industry members, (3) the effect of these safeguards on diversion and (4) the relevance of other factors in explaining the use and effect of the safeguards. These questions are studied in relation to handguns and where applicable in relation to junk gun manufacturers. The study is unique in its nearly industry-wide sample and its reliance on information obtained through the rigors of the legal “discovery” process.

**Population and Sample**

Manufacturers that produced or imported firearms for sale and distributors who marketed handguns in the U.S. during 1996 - 2000 comprised the population and period of interest. For the study, 60 manufacturers and 36 distributors were initially identified based upon available data and/or their involvement in the recent Federal case, *NAACP v. AcuSport et al.* (2003), in which diversion was a pivotal issue. The case, which involved manufacturers and distributors of
handguns in the U.S., was the culmination of a series of prior legal actions in which cities, municipalities and others had sought restitution for damages alleged to have been incurred as the result of firearm diversion. Based on reported market shares, the sample represented over 97% of both manufacturer and distributor handgun sales during the period of interest. In the analyses conducted here various subsamples of firms were employed. In every case except for specialty segments analyses, the handgun sales represented in these subsamples exceeded 79% and 93% of the manufacturer and distributor markets, respectively.

Data and Data Collection

Overview of Primary and Secondary Data

Both primary and secondary sources of data were employed for the study. Although, as previously described, tracing information identifying the distribution path that was followed by a firearm recovered from a crime scene (e.g., manufacturer, year, plant, distributor, retail dealer and time of sale) is gathered by law enforcement, this information is generally not available to the public. In the present case, however, aggregate tracing statistics by manufacturer were disclosed and later made public through the Judge’s case order (NAACP v. AcuSport et al. 2003, Appendices). These data provided the basis for analysis of the extent of diversion occurring overall. Market share data for manufacturers and distributors during the relevant period and made public in the case were also relied upon in the analyses. In addition, data describing annual handgun production and reported by manufacturers to the ATF was obtained and used in the analysis (BATF Annual Firearms Manufacturing and Export Reports 1996). Finally, manufacturers of so-called junk guns were identified based on both established criteria and published information (Gun Digest 1996) with the identified firms used in some analyses. Measures for these secondary data are subsequently described in greater detail.

Beyond secondary data, primary data describing manufacturer and distributor use of
selected countermarketing and demarketing safeguards and other information concerning each firm’s distribution infrastructure and/or management policies was also gathered and relied upon to the extent made public in the case (NAACP v. AcuSport et al. 2003, Appendices and related materials). Countermarketing and demarketing safeguards were identified relative to the six primary pathways of diversion. Selection and operationalization of the specific safeguards investigated was guided by a previously developed framework integrating the concepts of countermarketing and demarketing with theory and research on channels of distribution and applied against the firearms trade and law enforcement literature (See Bradford, Gundlach and Wilkie 2005). These data and their collection are described subsequently.

Primary Data and Data Collection Procedures

For gathering the primary data, forensic sources of data and data collection procedures identified and controlled by the Federal Civil Rules of Procedure (2008) were employed. The “discovery” process is designed to compel testimony under the penalty of sanction, thereby providing access to information otherwise difficult to obtain. Rules of discovery permit parties to obtain information through various methods. For the study, data were obtained from three sources:

Documents. Information was obtained from documents and other archival materials in the possession of manufacturers, distributors and others. The research team provided guidance and instructions for the identification of relevant documents and materials including analysis and planning reports, promotional materials, correspondence, and other written instruments addressing marketing, marketing channel management and other relevant areas for the period of interest. These were formally identified, requested and their disclosure provided for following the rules of discovery.

Depositions. Information was also obtained from the oral testimony of executives and business managers of the firearm manufacturers and distributors. The research team provided guidance as well as specific questions to be used in oral depositions of identified individuals who, under oath, were sworn to provide true information regarding their firm’s practices with respect to diversion and safeguarding. Depositions of manufacturer and distributor executives and managers were transcribed for analysis.
**Interrogatories.** In addition to the oral testimony of individual executives and managers, written requests for further information and clarification were provided to firearm manufacturers and distributors. These interrogatories contained written questions requesting specific information through written responses, again provided under oath, required to be answered, and certified to be accurate in their content and representations.

Given the iterative nature of the discovery process, throughout its course those administering the data collection (i.e., legal counsel) were provided guidance and instructions for obtaining relevant documents and materials, guiding oral questioning through depositions, and scripting written questions for interrogatories. In total, over 15,000 document pages, 87 depositions containing over 13,000 pages of testimony and extensive interrogatories for manufacturers and distributors were collected and organized for analysis of their content.

**Content Analysis**

The data contained in the documents, depositions and interrogatories and describing manufacturer and distributor use of the identified safeguards was coded employing standard content analysis (Kassarjian 1977; Kolbe and Burnett 1991). Two coders participated in the coding task. Each held an MBA degree from an accredited institution and both were familiar with the firearms industry and diversion based upon previous experience. Coders were given written protocols containing instructions and questions for their coding task. Each was familiarized with the procedures and then trained in their use through data obtained in a prior case. Each worked independently, analyzing and coding information from the three sources of data. For the coding task, coders determined instances where each safeguard was employed by a given firm. For each safeguard, coders consulted documents and depositions and then where necessary the interrogatory responses. The availability of three data sources and their order of consultation helped to maximize the measurement and evidentiary value of the data. Coding differences were resolved employing a modified Delphi process. The resolved data was combined with the original coded data and retained for analysis.6
Intercoder reliability

Upon completion of the coding task and before resolution of any differences, intercoder reliability was calculated following the Proportional Reduction in Loss (PRL) approach (Rust and Cooil 1994). Their approach provides advantages over past approaches and given the use of two coders in the current application is analytically consistent with that recommended by Perreault and Leigh (1989). The calculated PRL reliability measures for manufacturer and distributor data were .95 and .95, respectively, each exceeding the recommended standard “in those applied settings where important decisions are made” of .90 advanced by Nunnally (1978, pp. 245-6) and reported by Rust and Cooil (1994, p. 9). The high degree of intercoder reliability is likely due to the narrow response categories, specific questions and apriori coder training.

Analysis and Findings

To What Extent Are Handguns Diverted to Crime?

In order to better understand the problem of firearm diversion, analyses were first conducted to determine to what extent handguns are diverted from legitimate channels of distribution to the illegal marketplace. Focusing on firearms manufacturers, diversion was studied using the “time to crime” approach and measured through a firm’s crimegun performance. This approach provides a conservative measure of diversion in that it captures the percentage of its guns sold in the primary market at a point in time and subsequently recovered from crimes (with a short time period suggestive of diversion). The approach also adjusts for differential sales volume across manufacturers. For the analysis, the approach was circumscribed to focus on violent crimes versus all crimes including those of a nonviolent nature. Crimegun performance was operationalized as the percentage of a manufacturer’s handguns distributed into the primary market in 1996 that were later recovered from a violent crime and
traced back to the manufacturer by the year 2000. Of the initial sample, data for 29 manufacturers were available for this analysis.

In addition, special attention was given to the analysis of diversion occurring from manufacturers of junk guns. As previously described these include small handguns that are easily concealable and inexpensive, but often unreliable, inaccurate and poorly made (Vernick, Webster, and Hepburn 1999). Our identification of junk gun manufacturers included: (1) guns produced in quantity by a small group of manufacturers near Los Angeles, California known as the “Ring of Fire” (Wintermute 1994) and (2) through examination of Gun Digest (1996) reports identifying suppliers of inexpensive handguns ($150 or less), low in caliber (i.e., .22, .25, and .32) and barrel lengths of less than 3 inches (Wintemute et al 1998; Vernick, Webster, and Hepburn 1999). This led to the identification of 9 junk gun manufacturers among the 29 manufacturers for which data were available for analysis.

**Findings**

**Handguns.** Figure 1 depicts the crimegun performance of the studied handgun manufacturers. Production data from BATF’s Annual Firearms Production and Export Reports were available for 21 of the 29 manufacturers. Together with the reported percentages for crimegun performance the data indicate that overall, 10.1% of the handguns distributed into the primary market in 1996 were found to have been used in a violent crime by the year 2000. This represents more than 135,000 handguns, or one in every 10 sold in 1996. As shown in the Figure, it was also found that crimegun performance varied widely across manufacturers, with some firms having less than 1 percent of their handguns traced to violent crimes in the ensuing four years, and another firm with over half of its handguns sold (55%) in 1996 having been recovered and traced to violent crimes by 2000.
**Junk Guns.** The overall rate of diversion for the nine junk gun firms (depicted in the Figure with solid bars) was 25.7%, significantly higher than the average of 9.1% for the other 20 manufacturers ($t=2.76, p = .019$). The individual crimegun rates for junk gun firms showed a similarly wide range, from 2% to 55%, though concentrated in the higher crime levels. Deriving an estimate of the number of junk guns reflected in these data, this calculation indicates that of the over 293,000 handguns produced in 1996 by the 9 junk gun manufacturers, over 75,000 were found to have been used in violent crimes by 2000.

**Are Firms Countermarketing and Demarketing Against This Diversion?**

Given an understanding of the extent to which firearms were diverted to violent crime, analyses were also conducted to determine whether and to what extent firms employed *countermarketing and demarketing safeguards* to address this diversion during the relevant period (1996-2000). The analysis focused on the six primary pathways of diversion (see Bradford, Gundlach and Wilkie 2005). Organized around these pathways (see Table 2) this process yielded a measurement set composed of 13 channel safeguards for manufacturers and 10 channel safeguards for distributors. A hallmark of each safeguard is its previous identification, articulation and advancement by stakeholders within the firearms industry. Examination of the countermarketing and demarketing safeguards also reveals they are generally consistent with extant understanding in the academic marketing literature and as well as safeguards that may be found in other industries involved with dangerous or potentially harmful products.

Of the initial sample, information was sought through the discovery process for the 53 manufacturers and 36 distributors involved in the case (*NAACP v. AcuSport et al. 2003*). However, due to legal “default” by some firms (i.e., a failure to respond to a summons by the law, leading to the termination of rights to defend the case), safeguarding data was available for a
reduced set of 32 manufacturers and 30 distributors (including 4 of the previously identified 9 junk gun manufacturers).

Findings

Number of Safeguards. Table 1 contains summary statistics for the number of safeguards participated in by all firms, by manufacturers and distributors separately, and by type of gun produced (junk guns versus others). As shown in the Table the average number of safeguards across the studied firms is very low, averaging together only about one (1.11) safeguard per firm. Manufacturers averaged 1.31 safeguards and distributor .90 safeguards. Manufacturers of junk guns participated in an average level of safeguards (1.25).

Type of Safeguard. Organized by the six major pathways of diversion, Table 2 reports the percentage of manufacturers and distributors employing each type of safeguard. It can be seen that, of the 23 safeguards examined (13 manufacturer and 10 distributor safeguards), only six exceed a participation rate of 15%. For manufacturers, as shown in the Table, the more heavily adopted safeguards involved diversion occurring through nonstore/nonstocking dealers (25.0% chose to “[r]equire direct dealers or program dealers to have a storefront place of business” and 21.8% chose to “[r]equire that distributors sell to dealers who, in turn, only sell to storefront places of businesses”), In addition, 18.7% “disseminated materials on strawpurchases to others in their distribution system” and 15.6% “[r]estrict their distributors from selling at gun shows.” For distributors, to safeguard against diversion occurring through unscrupulous/corrupt dealers, 23.3% “[h]as stopped, would not sell or would stop selling to indicted dealers” and to safeguard against diversion occurring through nonstore/nonstocking dealers, 23.3% “[r]equire their dealers operate from a storefront place of business.” The participation rate for the other safeguards is at or below 15% with many below 10% (9 manufacturer safeguards and 5 distributor safeguards).
In sum, these results suggest there is some channel safeguarding activity occurring, but at an overall low average level. Only 18 of the 32 manufacturers (57%) participated in any type of channel safeguards, while 14 manufacturers (43%) did not participate in any of the safeguards. Coincidentally, 17 of the 30 distributors (57%) participated in any type of channel safeguards, while 13 distributors (43%) did not participate in any of the safeguards. Finally, as just indicated above, the percentage of firms adopting each type of safeguard is also low.

**Are These Safeguards Effective in Lowering Diversion?**

Beyond the extent of countermarketing and demarketing occurring against diversion, a critical question regards the efficacy of the safeguards.\(^{11}\) To examine the effect of manufacturer channel safeguarding practices on diversion as measured through crimegun performance, data from the judge’s report on violent crimegun rates were merged with data on manufacturer safeguarding activity. This yielded a subsample for analysis of 25 manufacturers. Included here were 8 firms in which a default judgment had been entered by the court. As a result, no information was available as to the level of their safeguarding activity. Considering these facts, together with sample size constraints, the study followed accepted procedures for the treatment of missing data (Hair, Black, Babin, Anderson, and Tatham 2006) with a set of reasonable assumptions used for treatment of the firms in default:

**Assumption 1: No safeguards.** In law, as described earlier, default is interpreted as the lack of an affirmative defense against a plaintiff’s allegations based upon the failure to respond to a legal summons or appear before the court of jurisdiction. Following this logic defaulting firms (“defaults”) were treated as engaged in none of the safeguards, retaining all 25 firms.

**Assumption 2: Average safeguards.** Apart from the standards of law, accepted procedures in social science for the treatment of missing data include their substitution. Following this approach defaults were treated as engaging in safeguarding activity at the same rate of all manufacturers whose safeguarding activities had been measured. Each defaulting firm here was thus assigned an assumed safeguarding rate of 1.31 (the average safeguard rate for manufacturers) thus again retaining all 25 firms.
Assumption 3: Deletion of defaults. Accepted procedures in the social sciences also include the deletion of sample members containing missing data. Following this approach defaulting firms were deleted from the sample, leaving a subsample of 17 manufacturers.

Applying these assumptions, the effect of number of safeguards by a manufacturer on its crimegun performance was investigated. These effects were also investigated for individual type of safeguard on crimegun performance. Given theory suggests that safeguards will deter diversion, directional one-tailed tests were deemed appropriate, and given the significance of this issue, a critical level of .10 was decided on. Also, in that in its original form crimegun performance is a proportion bounded by 0 and 1.00, a logit transformation was performed with the derived variable used in the analysis (Gujarati 1988).

Findings

Number of Safeguards. Applying the three assumptions for treatment of defaulting firms, Table 3 provides the summary statistics for regression models investigating the relationship of number of safeguards and diversion as measured through crimegun performance. Note that significant relationships emerge under all three assumptions. Applying Assumption 1, a significant negative relationship (b=-.425, p = .017) is found between number of safeguards and crimegun performance – the more safeguards participated in by a manufacturer, the lower the incidence of their guns being later recovered from violent crime. Applying Assumption 2, a significant negative relationship is also indicated (b=-.308, p = .067). Applying Assumption 3, when defaults were deleted and the sample size reduced, the results are also in accord with the hypothesis of safeguard efficacy (b=-.347, p = .086).

Further analyses were then conducted to follow up on the distinction in results depending on the treatment of defaulting firms. It was noted that Assumption 3, deleting defaults from the analysis, not only reduces the relatively small sample size, but also ignores other information
regarding these defaulting firms. Thus, more specific analysis of the eight defaulting firms was first conducted. For these analyses, a natural discontinuity in the crimegun performance data near the median was identified (between 8% and 11%, see Figure 1). Manufacturers (11 firms) with crimegun performance of 11% or more were subsequently assigned to the “Higher Crimegun Group.” Manufacturers (14 firms) with crimegun performance of 8% or less were assigned to the “Lower or Moderate Crimegun Group.” Observing the resulting membership of the defaulting firms, it was discovered that only 1 was in the Lower or Moderate Crimegun Group (representing 7.1% of this group), while 7 were in the Higher Crimegun Group (representing 63.6% of this group), a strongly statistically significant difference (t = 3.36, p = .003).

In addition, a test of crimegun performance between defaults and nondefaults was conducted. This analysis showed that the average crimegun performance of 20.5% for defaulting firms was significantly higher than the crimegun rate of 10.3% for nondefaulting firms (t = 1.85, p = .043). As a result, an additional test that also applied Assumption 3 (i.e., deleting defaults) was undertaken. Here differences in the number of safeguards by those firms in the Lower or Moderate Crimegun Group versus the Higher Crimegun Group were tested, and found to be significant. Firms in the Higher Crimegun Group employed an average of only 0.50 safeguards compared to 2.08 safeguards on average in the Lower or Moderate Crimegun Group (t = 2.79, p = .014).

In the Higher Crimegun Group, across all firms very little safeguarding activity is apparent: of 52 possible actions this group reported only two, for an approximate rate of 4%. In contrast, the Lower or Moderate Crimegun Group participated in 15.9% of 169 possible safeguarding activities. Nine of these 13 manufacturers (~70%) engaged in at least one countermarketing or demarketing safeguard activity, with six of these firms engaged in three or
more activities. In conclusion, based on this analysis it appears that manufacturing firms that implement countermarketing and demarketing safeguards against diversion are likely to have fewer of their guns used in violent crime (or vice-versa).

**Type of Safeguard.** Which types of safeguards are particularly associated with lower firm crimegun rates? Given the low levels of safeguarding found to be undertaken overall and the relatively small sample size an overall analysis with each safeguard included was precluded.\(^\text{12}\) However, as shown in Table 3 individual simple regressions were undertaken to investigate the relationship of each individual safeguard and diversion as measured through crimegun performance. Applying Assumption 1, significant negative effects for safeguards involving diversion through (1) nonstorefront/nonstocking dealers \((b=-.447, p = .013)\), (2) gun shows \((b=-.341, p = .048)\), and (3) strawpurchases \((b=-.276, p = .091)\) were found suggesting their individual utility.\(^\text{13}\) We note that these are in fact those safeguards that were being employed at higher levels in the industry.\(^\text{14}\) Similarly, applying both Assumptions 2 and 3, significant negative effects for safeguards involving diversion through nonstorefront/nonstocking dealers were also found \((b=-.302, p = .071; b=-.341, p = .051\text{ respectively})\).

In summary, the set of findings provides evidence that countermarketing and demarketing safeguards by manufacturers are associated with reduced levels of firearm diversion overall, and that manufacturers with higher crimegun rates are currently engaging in lower levels of safeguarding. These findings are further bolstered by the results for safeguards against diversion occurring through nonstorefront/nonstocking dealers, gun shows, and strawpurchases.

**Are Other Factors Relevant For Understanding These Findings?**

A further question centers on the nature and impact of various factors (and particularly barriers) to the use of countermarketing and demarketing safeguards by manufacturers and distributors. As noted in the analysis above, despite evidence suggestive of their positive effect
for reducing the occurrence of diversion almost half of the studied firms engaged in none of the investigated safeguards, others in only one, and a few firms in higher numbers (with numerous additional firms providing no information). Are there differences extending from available resources across firms that help to explain these findings? Are there differences extending from each firm’s distribution infrastructure and management policies that help to explain these findings? Finally, are there qualities inherent to the countermarketing and demarketing safeguards themselves that help to explain these findings? To investigate these questions a number of analyses were conducted.

For assessing the impact of resources available for implementing safeguards a surrogate measure, average market share from 1996 to 2000, for manufacturers and distributors was obtained from published information in the case (NAACP v. AcuSport et al. 2003, Appendices). These data were merged with data describing each firm’s safeguarding activity, yielding a sample of 17 manufacturers and 29 distributors. Regression analysis was then employed to assess the relationship between market share and the number of safeguards employed.

For examining the impact of each firm’s distribution infrastructure and management policies on countermarketing and demarketing safeguards, theoretically suggested variables representing 25 manufacturer and 22 distributor firm characteristics across four areas (i.e., information and information systems, distribution structure, relationship management and governance), were identified based upon published information in the case and analyzed (NAACP v. AcuSport et al. 2003, Appendices). The analysis compared the 18 manufacturers and 17 distributors employing at least one safeguard against those for the 14 and 13 non-safeguarding manufacturers and distributors.

For examining the impact of the countermarketing and demarketing safeguards themselves on safeguarding, patterns in the adoption of each of the countermarketig and
demarketing safeguards across firms was investigated. Given that each safeguard possesses certain attributes (costs, requirements, risks, etc.), the expectation was that, if safeguards were being used at all, their underlying properties would lead to some (i.e., those whose costs/risks are low and benefits high) being favored and others (with benefits lower, costs higher) being avoided across the industry. The analysis relied upon prior data for the 32 manufacturers and 30 distributors for which safeguarding data was available (see infra).

**Findings**

**Resources.** Regression analysis was used to assess the impact of resources (i.e., market share) on countermarketing and demarketing safeguards. For manufacturers, the relationship of market share and the number of safeguards was significant and positive (b=.427 p = .087), suggesting that firms with larger market share tend to employ more safeguards. For distributors, the relationship was not significant (b=.240, p = .211) indicating that market share was not related to differences in safeguarding. Together, these findings present a contrasting view of the impact of resources on safeguarding.

**Distribution infrastructure and management policies.** For both manufacturers and distributors, comparisons of safeguarding and nonsafeguarding firms were made across variables describing their distribution infrastructure and management policies. Comparisons of safeguarding and nonsafeguarding manufacturers made across 25 variables revealed few differences. For 22 variables (88%), the two groups’ proportions were found to be either identical or similar. Three significant (p < .10) differences were observed reflecting policies concerning “minimum order volume” “recommended prices” and the presence of “formal distributor agreements.” Comparisons of safeguarding and nonsafeguarding distributors made across 22 variables describing their distribution infrastructure and management policies also revealed few differences. For 21 variables (95%), the two groups’ proportions were either identical or similar.
Only one significant (p < .10) difference was observed (use of “formal application forms”). Together, these findings suggest few differences across safeguarding and nonsafeguarding firms on variables of distribution infrastructure and management policies considered relevant for engaging in countermarketing and demarketing.

Countermarketing and demarketing safeguards. Turning to the impact of the countermarketing and demarketing safeguards themselves on safeguarding, examination of the adoption pattern for safeguards across manufacturers revealed considerable dispersion, with 11 of the 13 safeguards (84.6%) being adopted by at least one manufacturer. Looking more specifically at individual safeguards, 21.8% and 25.0% of the manufacturers were found to have adopted the two safeguards for diversion occurring through nonstore/nonstocking dealers. For distributors, less dispersion was found with 6 of the 10 safeguards (60%) being adopted by at least one firm. For individual safeguards, 23.3% of the distributors were found to have adopted both the safeguard against nonstore/nonstocking dealers and one of the safeguards against diversion occurring through unscrupulous/corrupt dealers. None of the distributors were found to have adopted the two safeguards each for multiple sales and thefts. Together, although it is difficult to make definitive conclusions from these analyses, the extent of observed dispersion in the patterns of adoption studied is contrary to the apriori expectation that the underlying properties of the safeguards would lead to more systemic patterns of adoption (i.e., some safeguards being systematically favored and others being systematically avoided). We shall take up this finding again in the paper’s concluding discussion.

Alternative Explanations

As a basis for further understanding findings relating to the efficacy of countermarketing and demarketing safeguards against firearm diversion, other potential explanations that could account for the results observed were also investigated. Could it be, for example, that junk guns
and the conduct of junk gun manufacturers relative to their counterparts account for this finding? As noted earlier and shown in Figure 1, junk guns are more likely to be involved in crime and therefore the target of diversion. Could it be that these manufacturers are also choosing to engage in fewer safeguards relative to other firms, thus making this alternative explanation plausible? This possibility was investigated in several ways.

Our analysis first showed that, while junk guns are a very serious problem, they only make up a slight majority of handguns diverted to crime - according to our data junk guns accounted for some 55% of crimeguns in the period. Thus, 45% of the actual phenomenon is not being explained by a focus on junk guns. Further empirical tests also failed to support the alternative explanation: apart from their products, junk gun manufacturers are not sufficiently different from other firms to suggest a pattern of distinction.18

Because the sample of junk gun firms is very small and might make statistical tests suspect, we also conducted a qualitative analysis of these data. This supported the study’s main finding of the inverse association of channel safeguards and diversion. Specifically, within the set of junk gun manufacturers there is a single firm (we’ll term it Firm A here) that is exhibiting outlier behavior in the group. Firm A reports implementation of a relatively high level of safeguards (3 safeguards), in comparison to the average of only 0.33 by other junk gun makers). As shown in Figure 1, Firm A’s crime gun rate is only 2% -- this in comparison to an average crime rate of 26% for the other junk gun manufacturers. This result not only clearly supports the general finding of the efficacy of channel safeguards, but also extends their applicability to the segment of greatest concern with respect to the diversion of firearms to crime. Thus, while concerns about the behavior and performance of junk gun firms are warranted, the junk gun manufacturers are not the singular cause of the observed inverse association of safeguards and diversion as suggested by the alternative explanation.
Limitations

Prior to discussing the implications of the study’s findings, it is important that interpretation and application of these findings be considered within the context of the study’s parameters. Although the study’s sample was representative of a very large portion of U.S. handgun sales, not every manufacturer and distributor was represented. In addition, despite three distinct sources data and rigorous methods of data collection, the legal discovery process is not infallible in uncovering all true and accurate information. Complexity in the setting could also have resulted in missing data. This potential is mitigated however, in part, through the nature of inquiry permitted through discovery and the multiple sources and methods of data and data collection relied upon. In relation to our measures, it is important to note that our operationalization for a diverted handgun is based on a handgun’s “time to crime.” Although employed by others, such a measure cannot discount that a handgun may have traveled through the secondary market prior to being recovered at a crime. In addition, given our reliance on tracing data involving violent crimes it is appropriate to disclose that while employed by law enforcement studies of firearm diversion, as noted the use of these data is not uncontroversial. Further, despite focusing on safeguards previously identified by industry stakeholders and investigating their use by a large majority of manufacturers and distributors, not all possible safeguards were investigated nor could all firms in the industry be studied due to those focused upon and defaults by some firms. As well, notwithstanding the representativeness of our sample, the limitations in analysis inherent to small sample sizes are acknowledged.

DISCUSSION

Motivated by the tragedy of harm associated with the marketing problem presented by firearm diversion, the current study addressed the need for research on market-based efforts to reduce its occurrence. Examining the principles of countermarketing and demarketing and their
application and effects within the firearms industry and drawing on multiple sources of data collected in the context of the legal process, it investigated a number of important questions at the core of the debate over firearm diversion. Its findings provide important insights heretofore unavailable for understanding and addressing firearm diversion and the role of firearms marketers in safeguarding against diversion occurring in their retail distribution systems. In addition, the study also illustrates the use of forensic research in marketing and how it may be applied to investigate questions about marketing practices that prove difficult or otherwise inaccessible through more conventional data and methods of data collection. Discussion of these findings (and illustrations) and their implications are discussed subsequently.

Understanding and Addressing Firearm Diversion

Overview of Key Findings

**How significant is the firearm diversion problem?** It was discovered that a significant portion of handguns (at least 1 of every 10) distributed into the primary market in 1996 were used in violent crimes by the year 2000, thus documenting the problem of firearm diversion. That this diversion was found to vary widely across manufacturers generally and in addition, as a proportion of sales more so on the part of junk gun manufacturers, suggests that the existence of the problem depends on the individual firm and the nature of products sold. *Thus it may not be useful or appropriate to consider the industry “as a whole” in dealing with this issue – a focus on individual manufacturers and products is more likely called for.*

**Do firearms marketers countermarket and demarket against this diversion?** Our findings that reveal a low level of safeguarding practices across most firms is important information that has not previously been available. Viewed in isolation this finding contrasts markedly with concepts and principles in marketing that call for countermarketing and demarketing against the type of demand (i.e., illegal) known to fuel firearm diversion. *Although various factors may account for the lack of safeguards by firms, at a minimum these findings suggest that there exists considerable opportunity for additional safeguarding efforts by firearms manufacturers and distributors.*

**Are marketers’ safeguards effective in lowering diversion?** Given the statistical implications of the overall low level of safeguarding, it is particularly suggestive that we found that in general more safeguarding, and particularly higher levels of safeguarding against diversion through nonstore/nonstocking dealers, gun shows and strawpurchases, are associated with reductions in the proportions of handguns diverted to crime. *These findings provide initial: (1) insights into the potential role of firearms marketers in*
safeguarding against diversion occurring through their distribution system, (2) evidence that suggests efforts to countermarket and demarket against firearm diversion can work to reduce its occurrence and (3) guidance for understanding the individual potential of particular safeguards.

Do differences across firms account for these findings and effects? Our analyses showed that manufacturers and distributors who employed at least one safeguard did not generally differ from non-safeguarding firms on key distribution infrastructure elements and management policies. However, larger manufacturers undertook higher levels of safeguards (this result did not extend to distributors). Given resources as captured by market share may reflect either the financial means to engage in safeguards or the influence necessary to obtain the cooperation of others to do so, this finding merits future study. These analyses provide some evidence that non-safeguarding firms differ little from their safeguarding counterparts on a number of relevant factors. Together, they suggest at least the prospect that firearms manufacturers and distributors may be capable of implementing many of the safeguards.

Do qualities inherent to the safeguards account for these findings and effects? We also found that a large number of the safeguards had already been voluntarily adopted by at least one firm. Only a few industry-wide patterns of nonadoption were present (these included safeguards for multiple sales by both manufacturers and distributors and thefts for distributors). With these noted exceptions, the analyses suggest at least the possibility that many of the safeguards possess acceptable properties for adoption by industry members.

Do other explanations account for the observed efficacy of the safeguards? In particular, is it possible that junk guns and the conduct of junk gun manufacturers are responsible for the observed relationship between the use of safeguards and lower levels of diversion? Although, based on our findings concern for the behavior and performance of junk gun manufacturers is warranted, our investigation strongly suggests this is likely not the case.

Related Research for Understanding

A question not directly investigated through our research but important for understanding and addressing firearm diversion may be characterized as: “Won’t criminals just avoid the safeguarded pathways for diversion and get their guns elsewhere?” Recent evidence suggests that this is not entirely likely, and that the beneficial effects of safeguards in the primary (i.e., retail) market may extend to the secondary (i.e., used) market, such that overall crime rates decrease. In particular, a recently published case study reports on the impacts of a decision by a major Milwaukee gun dealer (whose sales accounted for about one-fifth of the city’s crimeguns)
to discontinue sales of Saturday Night Specials (Webster, Vernick and Bulzacchelli 2006). The research traced the effects of this decision to the subsequent number of new crimeguns found in the city and discovered a 44% decline in this important statistic (a comparison to trends in three other Midwest cities showed that it was unlikely that the decline was due to other factors). Thus, while some substitution will undoubtedly occur, the findings of this case study suggest that the overall volume of guns diverted to crime is reduced where safeguards are implemented in the primary market. As of the time of this submission, additional studies investigating these and related effects are currently underway.

Factors Affecting the Adoption of Safeguards

An important finding in the study is that despite results that suggest their capacity to reduce diversion, few of the studied countermarketing and demarketing safeguards (see Table 2) were adopted by firearms marketers. Given these safeguards involve those specifically identified by industry stakeholders, what factors may account for this finding? Our results examining the resources of firms for supporting safeguards and the presence of infrastructure and management policies for their implementation provided some insights, but a more comprehensive examination of this question is warranted. To this end, research in marketing has extensively examined factors that influence the adoption of countermarketing and demarketing in practice. According to this research, such measures are less likely to be engaged in where there exist perceptions (1) that they may yield unintended (Messerie et al 2006) or opposite effects (Farrelly et al 2002) on those targeted or may negatively impact others (Gallagher 2001), (2) where they may undermine economies of scale (Gallagher 2001), create competitive disadvantages (MacStravic 1995) or result in negative effects for long run profitability (Gautier 2001) and (3) where they may create ethical questions (Beeton and Pinge 2003) or unintended policy effects (MacStravic 1995). Alternately, countermarketing and demarketing measures are more likely to be embraced where
(1) they are required by law or there exists a risk of prosecution or litigation where not embraced,
(2) ethical considerations and social responsibility govern managerial decisions, and (3)
reputational concerns and economic/strategy calculations advise their use. Applying this
research to the study’s findings suggests a number of insights for understanding and addressing
firearm diversion as well as avenues for future inquiry.

**Economics.** Some safeguards, including restricting sales at gun shows and limiting
multiple sales, hold direct economic implications for the marketer. For example, gun
shows are considered by some members of the industry to be an important outlet for the
sale of firearms. Multiple sales are also not infrequent and can involve volume purchases
(Siebel 1999). Identifying safeguards that do not result in these economic effects or
otherwise mitigate their adverse consequences could help to increase the use of
safeguards overall.

**Distribution strategy.** The most widely adopted safeguards were requirements for the
channel to consist only of storefront and stocking dealers and these safeguards were
found to be associated with lower levels of diversion. In addition to being helpful for
safeguarding against diversion, these strategies can also provide marketing benefits.
Storefront and stocking requirements have been theorized to create incentives for a dealer
to support a manufacturer's (or distributor's) products and help to avoid conflicts that
could result between retailers who invest in such resources and those that do not. Given
their use, the identification of safeguards possessing the prospect of similar “dual”
benefits appears promising as a method for motivating increase use of safeguards in the
future.

**Power relations.** Requiring dealers to allocate resources to theft prevention and
strawpurchase training necessitates sufficient power to gain their cooperation. Perceived
power limitations by some manufacturers or distributors relative to dealers may account
for the lack of these safeguards in some instances. Understanding these dynamics may
help to increase the use of safeguards into the future.

**Values and norms.** Some firms may view that certain safeguards run counter to deeply
held values. For example, a policy such as not selling to an indicted distributor or dealer
may be seen by some as counter to the common law tradition that a person is “innocent of
a crime until proven guilty” (Coffin, F.A. and Percival B. Coffin v. U. S. 1895). Others
may find any safeguard limiting the distribution of firearms to be an affront to the Second
Amendment’s right of the people to keep and bear arms. Acknowledging these concerns
and addressing them through careful selection of safeguards and education could help to
increase the use of safeguards by these firms.

**Other factors and explanations.** Time, effort, complexity, and unawareness may also
explain the low levels of safeguarding. This may apply to the lack of information-based
safeguards, including analyzing ATF tracing information to identify problem distributors
and dealers, and/or determining instances of multiple sales. *Given the confidentiality common to private business, some firms may have been unaware and simply not considered instituting certain possible safeguards. The surprisingly wide variation in choice of specific safeguards to employ suggests this could be the case.*

**Efforts to Reduce Firearm Diversion**

This research contributes significant information potentially helpful to a broad range of efforts to address diversion and reduce its occurrence:

**Individual efforts.** As described, various lawsuits by institutions and individuals have sought to define and enforce the role of firearms marketers drawing on standards from common law including negligence and nuisance. These industry-wide lawsuits have had mixed success. Individual lawsuits have also been filed with some ultimately successful (Siebel 2003). Vigorously defending against these lawsuits members of the industry together with others have lobbied successfully for enactment of the Protection of Lawful Commerce in Arms Act (2005) to limit legal actions against them. The Act greatly limits legal actions against members of the industry for among other things, marketing practices that might be challenged as negligent or causing a nuisance. Constitutional challenges to this law have been mounted and a number of the prior lawsuits continue to advance due to exceptions in the law. *The results of this research are directly relevant to future determinations in this public policy sphere.*

**Industry efforts.** In July 2000, as previously described, The National Shooting Sports Foundation (NSSF), the trade association for the firearms industry, in coordination with the ATF, launched “Don't Lie for the Other Guy,” a national campaign to prevent and discourage illegal strawman purchases of firearms. The program educates firearms dealers and their employees on how to recognize and deter the illegal purchase of firearms through strawpurchases. According to the NSSF, since its inception, “firearms retailers in more than a dozen states have learned how to better identify potential straw purchasers, and the public has learned the very severe consequences of purchasing a firearm for someone who cannot legally possess one.” In addition to the study’s other results, its finding that as of 2000 relatively few manufacturers and distributors had disseminated materials to or trained others in their distribution system on strawpurchases demonstrates the opportunity for industry sourced programs against diversion.

**Governmental efforts.** Mayors Against Illegal Guns is a coalition of over 250 mayors from more than 40 states that is working to prevent criminals from illegally obtaining guns and preventing those who do get them from using them. The coalition is active in addressing issues surrounding all aspects of firearm diversion. Their activities include: targeting and holding accountable irresponsible gun dealers, collaborative efforts with gun dealers to deter the occurrence of diversion through its various pathways, support of federal, state and local legislation that targets access to illegal guns, and opposing efforts to restrict cities rights to access, use and share trace data helpful to these efforts.
Findings from the study help to inform these and other activities by the coalition against firearm diversion.

Legislative efforts. Although various legislation addresses firearm diversion, legislation recently reintroduced in the U.S. Senate (S.2577) proposes to address the so-called “gun show loophole.” Federal law currently permits individuals who sell guns to avoid running background checks or keeping records by calling themselves occasional sellers, and these sellers often congregate at gun shows. The loophole provides criminals with easy access to firearms through occasional sellers without having to worry about any background checks. The legislation proposes to require background checks to include occasional sellers. It also toughens federal laws that apply to straw purchase sales and other crimes by dealers. Similar legislation is pending in the House (H.R. 96). As with the above governmental actions, the study’s findings provide information and findings that should help to inform this and other legislation attempting to address firearm diversion.

Enforcement efforts. Although laudable, efforts by law enforcement are challenged in part by the large number of licensed firearms dealers and volume of guns sold compared to the limited resources available to enforcement officials charged with overseeing firearms retailers and their sales. Law enforcement responsibilities have also expanded over time. Other challenges include changes to the laws over time that limit dealer inspections, provide for less severe penalties and restrict access to information about members of the industry and consumers. The current study’s findings demonstrate the benefits that may derive from supplementing law enforcement efforts with those of industry members to yield a comprehensive solution to the problem of firearm diversion.

Advocacy efforts. Organizations like the Brady Center to Prevent Gun Violence and the Educational Fund Against Gun Violence are groups whose activities address firearm diversion. The Brady Center is the nation's largest, non-partisan, grassroots organization whose objectives are to prevent gun violence. Both organizations have been actively involved in addressing firearm diversion. The Brady Center recently launched Campaign Against Illegal Guns, a multi-year effort to stem the trafficking of guns from licensed gun dealers into the hands of criminals, minors, and other prohibited purchasers. The Educational Fund Against Gun Violence is reportedly working to understand how municipalities and other large scale purchasers may employ their buying power to motivate manufacturer’s use of safeguards against diversion. Results from the current study provide information that should be of help to inform both present and future efforts by such groups.

Countermarketing and Demarketing

In both public policy and marketing, efforts to influence lawful and socially desirable behavior have traditionally emphasized communications to final consumers (Andreasen 1995). With some exceptions applications of countermarketing and demarketing, for example, have traditionally focused on the use of advertising and other forms of communication directed to
consumers (e.g., smoking cessation, responsible alcohol consumption, energy consumption, etc.). Some scholars contend that adopting a wider focus through consideration of added approaches and additional targets will lead to increased success in these efforts (Rothschild 1999). To this end, the current research illustrates the application of countermarketing and demarketing to portions of the marketing mix not previously emphasized nor extensively documented through research. The research also illustrates the application of these principles to members of the distribution system (versus consumers) as the target of countermarketing and demarketing. Beyond its more specific implications for understanding and addressing firearm diversion, therefore, the research adds to extant thinking concerning countermarketing and demarketing as well as the related areas of social marketing, corporate responsibility and public health.

**Forensic Research in Marketing**

Apart from the study’s findings and implications for firearm diversion and its contributions to the marketing principles of countermarketing and demarketing, an important contribution is also its demonstration of the use of forensic data and procedures to uncover information about marketing and in particular controversial aspects of its practice. The rules and procedures of the legal discovery process permit widespread access to relevant sources of information and provide for in-depth procedures to obtain different forms of information. Data collected through the rigors of the legal discovery process also possess the virtues of being “truthful” given they are collected under oath and against the penalty of legal sanction. With few exceptions, the nature and use of such data has not been widely reported in the marketing literature. The study contributes to this understanding through its description of the nature and procedures associated with such data.

**CONCLUSION**

Few marketing problems in society lead to the tragedy of harm that can result when
firearms are diverted from the legal to the illegal marketplace. Handguns diverted from lawful channels of distribution are a significant source of guns used in crime. The reduction of firearm diversion has been identified as a national goal. Drawing on the credibility of well-established principles from the field of marketing and employing a novel set of data collected under oath and through the rigors of the legal process, this study provides a new perspective and information not before available to aid in reducing the occurrence of firearm diversion. The field of marketing is encouraged to engage in further steps to assist in addressing this important goal.
FIGURE 1
CRIMEGUN PERFORMANCE
PERCENTAGE OF HANDGUNS DISTRIBUTED INTO THE PRIMARY MARKET IN 1996 AND USED IN VIOLENT CRIMES BY 2000

Legend: Black bars denote manufacturers of Junk Guns.
## TABLE 1
COUNTERMARKETING AND DEMARKETING SAFEGUARDS

NUMBER OF SAFEGUARDS

<table>
<thead>
<tr>
<th>Safeguards</th>
<th>Participation Rate</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td># of Possible Safeguards</td>
<td>Range</td>
<td></td>
</tr>
<tr>
<td><strong>Industry</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>1.11(^1)</td>
<td>13/10</td>
<td>0 to 5</td>
<td></td>
</tr>
<tr>
<td><strong>Channel Member</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturer</td>
<td>1.31</td>
<td>13</td>
<td>0 to 5</td>
<td></td>
</tr>
<tr>
<td>Distributor</td>
<td>.90</td>
<td>10</td>
<td>0 to 4</td>
<td></td>
</tr>
<tr>
<td><strong>Type of Gun (Mfrs. only)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Junk Gun</td>
<td>1.25</td>
<td>13</td>
<td>0 to 3</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>1.32</td>
<td>13</td>
<td>0 to 5</td>
<td></td>
</tr>
</tbody>
</table>

\(^1\)The industry statistics were derived by determining the total number of safeguards implemented by both manufacturers and distributors and dividing by the total number of manufacturer and distributor firms.
<table>
<thead>
<tr>
<th>Pathway of Diversion/Safeguard</th>
<th>Participation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unscrupulous/Corrupt Dealers</strong></td>
<td></td>
</tr>
<tr>
<td>Manufacturer...</td>
<td></td>
</tr>
<tr>
<td>Analyzes trace information to identify in any way problem distributors or dealers</td>
<td>9.4%</td>
</tr>
<tr>
<td>Has stopped, would not sell or would stop selling to indicted dealers</td>
<td>6.3%</td>
</tr>
<tr>
<td>Distributor...</td>
<td></td>
</tr>
<tr>
<td>Analyzes trace information to identify in any way problem distributors or dealers</td>
<td>13.3%</td>
</tr>
<tr>
<td>Has stopped, would not sell or would stop selling to indicted dealers</td>
<td>23.3%</td>
</tr>
<tr>
<td><strong>Nonstore/Nonstocking Dealers</strong></td>
<td></td>
</tr>
<tr>
<td>Manufacturer...</td>
<td></td>
</tr>
<tr>
<td>Requires that distributors sell to dealers who, in turn, only sell to storefront place of business</td>
<td>21.8%</td>
</tr>
<tr>
<td>Requires direct dealers or program dealers to have storefront place of business</td>
<td>25.0%</td>
</tr>
<tr>
<td>Distributor...</td>
<td></td>
</tr>
<tr>
<td>Requires their dealers operate from a storefront place of business</td>
<td>23.3%</td>
</tr>
<tr>
<td><strong>Gun Shows</strong></td>
<td></td>
</tr>
<tr>
<td>Manufacturer...</td>
<td></td>
</tr>
<tr>
<td>Restricts their distributors from selling at gun shows</td>
<td>15.6%</td>
</tr>
<tr>
<td>Restricts their distributors from selling to dealers who, in turn, sell at gun shows</td>
<td>6.3%</td>
</tr>
<tr>
<td>Restricts their direct or program dealers from selling at gun shows</td>
<td>9.4%</td>
</tr>
<tr>
<td>Distributor...</td>
<td></td>
</tr>
<tr>
<td>Restricts their dealers from selling at gun shows</td>
<td>3.3%</td>
</tr>
<tr>
<td><strong>Strawpurchases</strong></td>
<td></td>
</tr>
<tr>
<td>Manufacturer...</td>
<td></td>
</tr>
<tr>
<td>Has disseminated materials on straw purchase to others in their distribution system</td>
<td>18.7%</td>
</tr>
<tr>
<td>Has trained others in their distribution system on strawpurchases</td>
<td>9.4%</td>
</tr>
<tr>
<td>Distributor...</td>
<td></td>
</tr>
<tr>
<td>Has disseminated materials on straw purchase to dealers</td>
<td>13.3%</td>
</tr>
<tr>
<td>Has trained dealer on strawpurchases</td>
<td>13.3%</td>
</tr>
<tr>
<td><strong>Multiple Sales</strong></td>
<td></td>
</tr>
<tr>
<td>Manufacturer...</td>
<td></td>
</tr>
<tr>
<td>Limits multiple sales in their distribution system</td>
<td>0.0%</td>
</tr>
<tr>
<td>Attempts to obtain information from members in their distribution system about multiple sales</td>
<td>0.0%</td>
</tr>
<tr>
<td>Distributor...</td>
<td></td>
</tr>
<tr>
<td>Limits dealer multiple sales</td>
<td>0.0%</td>
</tr>
<tr>
<td>Attempts to obtain information from dealers about multiple sales</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Thefts</strong></td>
<td></td>
</tr>
<tr>
<td>Manufacturer...</td>
<td></td>
</tr>
<tr>
<td>Requires members in their distribution system to take measures to prevent theft</td>
<td>6.3%</td>
</tr>
<tr>
<td>Requires that members in their distribution system report incident of thefts to them</td>
<td>3.1%</td>
</tr>
<tr>
<td>Distributor...</td>
<td></td>
</tr>
<tr>
<td>Requires dealers to take measures to prevent theft</td>
<td>0.0%</td>
</tr>
<tr>
<td>Requires that dealers report incident of thefts to them</td>
<td>0.0%</td>
</tr>
</tbody>
</table>
# TABLE 3

## MANUFACTURER SAFEGUARDING PRACTICES AND CRIMEGUN PERFORMANCE

### REGRESSION STATISTICS

<table>
<thead>
<tr>
<th>Individual Safeguards</th>
<th>Assumption Description</th>
<th>Regression Statistics</th>
<th>All Safeguards</th>
<th>Non-Store</th>
<th>Gunshow</th>
<th>Strawpurchase</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Standardized Regression Coefficient</td>
<td>-.425</td>
<td>-.447</td>
<td>-.341</td>
<td>-.276</td>
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<tr>
<td></td>
<td></td>
<td>Significance</td>
<td>.017</td>
<td>.0125</td>
<td>.0475</td>
<td>.091</td>
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<tr>
<td></td>
<td></td>
<td>R-Square</td>
<td>0.180</td>
<td>.199</td>
<td>.116</td>
<td>.076</td>
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<tr>
<td></td>
<td></td>
<td>F-Test</td>
<td>5.059</td>
<td>5.727</td>
<td>3.027</td>
<td>1.897</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Df</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Defaulting Firms</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Implement “0” safeguards</td>
<td>Standardized Regression Coefficient</td>
<td>-.308</td>
<td>-.302</td>
<td>-.224</td>
<td>-.147</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Significance</td>
<td>.067</td>
<td>.071</td>
<td>.141</td>
<td>.242</td>
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<tr>
<td></td>
<td></td>
<td>R-Square</td>
<td>.095</td>
<td>.091</td>
<td>.050</td>
<td>.022</td>
</tr>
<tr>
<td></td>
<td></td>
<td>F-Test</td>
<td>2.413</td>
<td>2.31</td>
<td>1.22</td>
<td>.509</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Df</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Defaulting Firms</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Implement the Average Number of Safeguards</td>
<td>Standardized Regression Coefficient</td>
<td>-.347</td>
<td>-.341</td>
<td>-.304</td>
<td>-.200</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Significance</td>
<td>.086</td>
<td>.051</td>
<td>.118</td>
<td>.222</td>
</tr>
<tr>
<td></td>
<td></td>
<td>R-Square</td>
<td>.121</td>
<td>.168</td>
<td>.093</td>
<td>.04</td>
</tr>
<tr>
<td></td>
<td></td>
<td>F-Test</td>
<td>2.056</td>
<td>3.026</td>
<td>1.532</td>
<td>.622</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Df</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
</tr>
</tbody>
</table>
REFERENCES


Protection of Lawful Commerce in Arms Act, (2005), H.R. 800.


1 The Bureau of Alcohol, Tobacco and Firearms (ATF) operates an ongoing “tracing” system to identify guns used in crimes. The tracing process begins when a law enforcement official recovers a firearm, usually from a crime scene or from the possession of a suspect, felon, or other prohibited person, and the law enforcement agency submits a trace request to ATF’s National Tracing Center. The trace information identifies the firearm (serial number, firearm type, manufacturer or importer, and caliber), the individual possessing the firearm, recovery location, and the criminal offense (BATF 2000b). Tracing data are then used for linking suspects to a firearm in a criminal investigation, identifying potential traffickers, determining whether sellers of crime guns are licensed, and detecting in-state and interstate patterns in the sources and kinds of crime guns.

2 Law enforcement efforts are challenged in part by the large number of licensed firearms dealers and volume of guns sold compared to the limited resources available to law enforcement charged with overseeing firearms retailers and their sales. Law enforcement responsibilities have also expanded over time. Other challenges include changes to the laws over time that limit dealer inspections, provide for less severe penalties and restrict access to information about members of the industry and consumers.

3 These lawsuits have sought to define and enforce the role of firearms marketers drawing on standards from common law including negligence and nuisance.

4 These include fugitives from justice, users of controlled substances, illegal aliens, those under court order for threats to intimate partners, those underage, those with dishonorable discharges, and those committed to mental hospitals.

5 The percentage estimates in these pathways sum to over 100% as certain sales involve combined pathways (e.g., a diverted purchase from a nonstore/nonstocking dealer might also reflect a unscrupulous/corrupt dealer, and could also reflect a gun show sale.

6 In total, coders made 448 determinations in relation to manufacturer safeguards (32 manufacturers and 14 safeguards) and 330 in relation to distributor safeguards (30 distributors and 11 safeguards).

7 As producers or importers, manufacturers are the source of supply for firearms in the primary market. Information concerning diversion in relation to distributors was not available for analysis.

8 Published annually since 1946, Gun Digest is described as “The complete gun book…” and provides technical data on firearms.

9 One manufacturer safeguard and one distributor safeguard were dropped from the analysis after it was determined that the safeguard was available for use during only a portion of the period of interest. This safeguard involved participation in the earlier reported “Don’t Lie for the Other Guy” program against strawpurchases. Although earlier versions of the program were available, the program was not formally implemented until 2000.

10 Default involves a party’s failure to respond to a summons and complaint served on them in the time required by law and amounts to their failure to defend against a claim in court. If a legal answer or other response is not filed, the suing party (plaintiff) can request a default be entered in the record, which terminates the rights of the defaulting party to defend the case.

11 As to the direction of this posited relationship, as previously described, the years reflected in the safeguard data capture safeguards in place during 1996-2000, the period of diversion.

12 Small samples, usually characterized as having fewer than 20 observations, are considered appropriate for analysis only by simple regression with a single independent variable and relationships in the data can only be detected for very strong relationships (Hair, et. al. 2006).

13 A lack of safeguards addressing multiple sales precluded their inclusion in these analyses.

14 The data for illegal sales (used by only 4 firms), thefts (used by only 2 firms), and multiple sales (not used by any firm) were not expected to yield significant differences, due to their lack of variation, and they did not.
Although an imperfect measure of a firm’s resources given it overlooks costs, financial data concerning members of the firearm industry is not widely available given their often privately held status.

For these analyses, assumption 3 was employed for manufacturers and extended to distributors.

This included items describing elements of a firm’s information and information systems that could be employed to identify instances of firearm diversion and for facilitating coordination among channel members to help to limit it, features of a firm’s distribution structure that would be instrumental in limiting diversion, aspects of relationship management that could be used to select and coordinate intermediary relationships within the system to aid in the reduction of diversion, and approaches to channel governance that could be deployed and relied upon to administer such safeguarding efforts.

First, neither the mean nor the median market share of firms that manufacture junk guns (2% and 2% respectively) significantly differ from those that do not (4% and 2% respectively) (means test t = .971, df = 25, p = .341, ns). Second, the mean number of safeguards employed does not differ between junk gun manufacturers (0.75) and non junk gun manufacturers (0.54), and is directionally opposed to expectations (t = -.800, df = 30, p = .469, ns) (this relationship did not change if defaulting firms are added to the analysis with an assumption of no safeguarding activity [t=-.525, df=51, p = .602]). Finally, the average number of safeguards implemented by those junk gun manufacturers using safeguards (1.25) does not differ from the number implemented by non junk gun manufacturers (1.32) (t = .083, df = 30, p = .934), and this finding also does not change if defaulting firms are added with the assumption of no safeguarding (t = .160, df = 51, p = .874).