

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 who occupy illegal markets or are 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 article reports on a large-scale study of the diversion of handguns in the United States 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 United States 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 reduce both diversion and its resultant crimes. The study and its findings provide an 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 on countermarketing and demarketing as well as the related areas of social marketing, corporate responsibility, and public health.

Keywords: diversion, firearms, black market, countermarketing, demarketing, channels of distribution

Product diversion involves the distribution of products into markets other than those 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., compact discs, 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 who occupy illegal markets and/or are intent on using them for illegal purposes, thus leading to adverse consequences for consumers, marketers, and society at large.

A product that has drawn considerable attention for its diversion is firearms and, in particular, handguns. New guns diverted from lawful channels of distribution have long been known to be an important source of firearms used in crime (Bureau of Alcohol, Tobacco and Firearms [BATF] 2000a; Zimring 1975, 1976). Surveys of prison inmates reveal that 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).

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Newer guns are reportedly sought by criminals to avoid the risk of possessing a gun that could be linked to other crimes because new guns are perceived as less likely to malfunction in use and because some guns accept high-capacity detachable magazines for enhanced firepower (Brady Center 2007; Webster et al. 2002). In addition, purchases of used guns in the secondary market can have high search costs (Cook et al. 2007).

According to “trace” studies, significant diversion of handguns has been shown to occur.¹ For example, a major study found that at least 15% of the handguns produced in or imported to the United States 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% of guns in private hands but account for 34% of guns recovered and traced to crimes in 1999 (Pierce et al. 2001). In general, trace studies understate the true occurrence of firearm diversion given that 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.

The relationship of product diversion to crime has led policy makers to declare the reduction of firearm diversion a national goal. Diversion’s ensuing harms, including violent crime, injuries, death, fear, and anxieties, as well as the associated economic costs, are a major threat to society. Consider the following examples:

- From 1996 to 2005, nearly 5 million violent crimes were committed with firearms in the United States (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 currently increasing, reversing a downward trend from 1997 (Brady Center 2007). Heightened concern with firearm diversion has also been evident during the post–September 11 era because diverted firearms can provide a 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 United States for its easy availability of firearms, providing detailed instructions to Al-Qaeda members in the United States regarding how to obtain firearms through diversion without arousing suspicion (Brady Center 2001). More recently, diverted firearms in the United States have been identified as a significant source of weaponry used by drug cartels in

¹The 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 the 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, the 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.

Mexico, whose members have been obtaining guns in the United States 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.² In search of solutions, citizen and government stakeholders have increasingly focused on the potential role of firearm manufacturers and distributors 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 National Association for the Advancement of Colored People [NAACP]) have attempted to define and enforce this safeguarding role through a series of high-profile lawsuits in federal court.³ Industry trade associations and law enforcement have also collaborated to prevent and discourage diversion from occurring through specific types of illegal transactions. More recently, concerned mayors of cities from across the country have formed a working coalition to address firearm diversion, and federal legislation has been proposed to address various loopholes in the firearms distribution system through which diversion is known to occur. In addition, ongoing efforts by grassroots organizations have increasingly focused on the firearms distribution system, with one organization recently announcing a multiyear effort to reduce diversion occurring through licensed gun dealers.

To date, however, efforts have been hampered by a lack of information about the actual actions of marketers in relation to the problem (see Adams 2004). A review of market-based (including marketers’) efforts to reduce firearm diversion, conducted by the National Research Council (2005, p. 73), concluded the following:

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 crime gun 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 use the court system to gain information and data about marketer practices that have otherwise been unavailable.

As a basis for informing ongoing inquiry into the role of marketing and marketers in addressing the problem of

²Law enforcement efforts are challenged in part by the large number of licensed firearms dealers and volume of guns sold compared with 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, impose less severe penalties, and restrict access to information about members of the industry and consumers.

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

firearm diversion, this article reports on a large-scale study of the firearms industry. Relying on 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 inform the various initiatives described previously, as well as future actions that are likely to result in response to the Supreme Court’s 2008 ruling addressing Second Amendment rights pertaining to firearms (*District of Columbia, et al. 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 because of 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 about countermarketing and demarketing as well as the related areas of social marketing, corporate responsibility, and public health.

Product Diversion of Firearms

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.⁴ 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 United States is federally licensed and typically multitiered, with manufacturers selling to wholesale distributors that then sell to a far-reaching dealer network that in turn sell to the public (Paumarck Publications Industrial Research Center 1992). Firearms distributed and sold through some 55,000 federally licensed dealers constitute the “primary” market (Violence Policy Center 2006). Approximately 4.5 million new firearms, including approximately 2 million handguns (BATF 2000a), are sold each year. A “secondary” market comprising transactions by unlicensed people also exists and involves previously owned (i.e., used) guns. Relying on household survey data, Cook and Ludwig (1997) estimate that approximately two 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 (cited as BATF, and hereinafter referred to in text simply as ATF), “unlike narcotics or other contraband, the criminals’ supply of guns does not begin in clandestine factories or with illegal smuggling” (BATF 2000c). In a study of the sources of guns used in crime, Wachtel (1998, p. 234) notes of the following:

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 (1993) in testimony before Congress,

It is [the 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 the 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. For example, one ATF study found that approximately 60% of the guns traced to crime had origins with only approximately 1% of the nation’s gun dealers (BATF 2000a). Another report found that 1160 dealers, or approximately 1% of the more than 100,000 dealers in 1998, were the source of 34,626 crime guns—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 crime guns 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 2000; Wintemute et al. 2005).

Six Primary Pathways of Retail Firearm Diversion

Recent research, based on marketing channel and retail management, has identified six primary pathways for retail firearm diversion (Bradford, Gundlach, and Wilkie 2005).⁵ We describe each in turn.

⁴These 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.

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

Unscrupulous/Corrupt Dealers

Despite reflecting a small proportion of the retail institutions that sell 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 of and concern about 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, out of their automobiles, in person, and from other non-conventional 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 Accountability Office 1996). According to one ATF (BATF 2000a) study involving a random sample of 1530 trafficking investigations, 23% involved nonstore 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). More than 4000 gun shows are advertised in the United States each year, with many extending over several days, drawing 2500–5000 people 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.

Straw Purchases

A further pathway for diversion involves transactions conducted as straw purchases, in which a legal buyer illegally purchases a gun on behalf of another person who is legally prohibited from buying the firearm (because of age, criminal record, and so forth). The cumulative impact of straw purchases 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 through lawful transactions involving “multiple sales,” defined as the purchase of two or more handguns by an unlicensed person within a five-day period. According to a federal study, multiple sales accounted for 22% of handguns that were first sold at retail in 1999 and then traced to a crime that year (BATF 1999). A separate ATF tracing study fur-

ther shows that multiple sales are a significant source of guns for juvenile and youth offenders (BATF 1999).

Theft

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

Summary

These six diversion pathways 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., straw purchases 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 are a special target of diversion. In general, these include handguns (versus long guns)—in particular, “junk” guns (i.e., “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 known as the “Ring of Fire” (Wintemute 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 three 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 more than 35 years ago, Kotler and Levy’s (1971) conception of marketing management as “demand” management provides the foundation for these concepts. As Kotler (1973) and others describe, in addition to creating and maintaining demand, marketers may at times be confronted with “unwanted” demand. This can include not only too much demand for a firm’s capacity (e.g., a sold-out hotel or airplane) but also what Kotler calls “unwholesome” demand. Classic examples involve “vice” products (e.g., alcohol, cigarettes, drugs)—that is, when

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 in 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. For example, prices can be raised; product quality, service, and promotion can be reduced; and convenience can be altered (Gautier 2001; Gerstner, Hess, and Chu 1993; Harvey and Kerin 1977; Kotler and Levy 1971). Selectivity is a hallmark of these efforts because 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 whom 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 the undesirable effects on demand by other consumers. Focusing on the temporary or permanent nature of the various strategies 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. In general, this work has focused on applications directed at consumers rather than at business channel partners. For example, the prior literature has discussed countermarketing and demarketing strategies to encourage smoking cessation (Messerli et al. 2006), reduced consumption of alcohol (Beeton and Benefield 2002), energy conservation (Harvey and Kerin 1977), the management of dysfunctional demand for health care services (Mark and Elliott 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), though there is a lack of agreement among executives as to their effects on energy conservation (Harvey and Kerin 1977). Factors influencing the successful application of countermarketing and demarketing include the strength of values, attitudes, and behaviors of the targeted population (Frisbie 1980; Mark and Elliott 1977; Wall 2007); the credibility of those who apply them (Harvey and Kerin 1977); how they are applied (Seymour 1983); whether sub-

stitutes or alternatives are available (Wall 2007); and whether counterinfluences 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 we 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 possible role of firearm manufacturers and distributors in safeguarding against diversion that occurs 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 manufacturer's or distributor's retail distribution system. As Bradford, Gundlach, and Wilkie (2005, p. 290) conclude,

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

Over time, policy makers, industry stakeholders, and marketing experts have proposed safeguards against firearm diversion incorporating elements of countermarketing and demarketing applied to the design and management of the retail distribution system for firearms. As early as 1975, the ATF director opined that handgun control should be approached by examining 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). In line with this strategy, during the 1990s, various ATF studies identified the key sources of firearm diversion (e.g., BATF 1993). Drawing from these studies, others identified "tactics" and "steps" for addressing firearm diversion. For example, a 1996 editorial in the *Journal of the American Medical Association* 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 scowflaw dealers out of business and reduce gun theft" (Cole and Cook 1996, p. 1765). Furthering its ongoing efforts, in 2001, the U.S. 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 the following:

[I]dentify and refuse to supply dealers and distributors that have a pattern of selling guns to criminals and straw purchases; develop a continual training program for dealers and distributors covering compliance with firearm laws, identifying straw purchase 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 [National Instant Background Check Systems] are completed.

At the same time, members of the industry 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, “In our opinion, the new study ... can provide not only the thesis for a constructive proactive position, but also an appropriate and timely framework for industry response” (Painter 1993). Though now defunct, in 2000, an agreement involving Smith & 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 Department of Justice, the agreement represented that commonsense 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, the “Don’t Lie for the Other Guy” program, 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 straw purchases includes posters, a counter card, and mats for retailers, as well as an eight-page brochure educating retailers on what they should do (National Shooting Sports Foundation 2009). As previously identified, coalitions, such as Mayors Against Illegal Guns; advocacy organizations, such as the Brady Center and 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 firearms industry was first identified by 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 firearms 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. However, despite these efforts, to date, little empirical evidence has been available that formally describes the application of countermarketing and demarketing principles and safeguarding strategies proposed by policy makers, industry stakeholders, and marketing academics over time.

Empirical Study of Firearm Diversion and Countermarketing and Demarketing in the Firearms 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 about the safeguarding role of firearms marketers, we investigate and provide insights into questions related 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, when applicable, in relation to junk gun manufacturers. The study is unique in its nearly industrywide 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 that marketed handguns in the United States during 1996–2000 constituted the population and period of interest. For the study, 60 manufacturers and 36 distributors were initially identified using available data and/or their involvement in the federal case *NAACP v. AcuSport, Inc., et al.* (2003), in which diversion was a pivotal issue. The case, which involved manufacturers and distributors of handguns in the United States, 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 a result of firearm diversion. Based on reported market shares, the sample represented more than 97% of both manufacturer and distributor handgun sales during the period of interest. In the current analyses, we employed various subsamples of firms. 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

We employed both primary and secondary sources of data for the study. As previously described, tracing information identifying the distribution path that was followed for a firearm recovered from a crime scene (e.g., manufacturer, year, plant, distributor, retail dealer, time of sale) is gathered by law enforcement; in general, this information is not available to the public. In the current case, however, aggregate tracing statistics by the manufacturer were disclosed and later made public through the judge’s case order (*NAACP v. AcuSport, Inc., et al.* 2003, Appendixes). These data provided the basis for analysis of the extent of diversion occurring overall. We also relied on market share data for manufacturers and distributors during the relevant

period and made public in the case. In addition, we obtained data describing annual handgun production, as reported by manufacturers to the ATF (BATF 1996). Finally, manufacturers of so-called junk guns were identified on the basis of both established criteria and published information (Warner 1996) with the subsequently identified firms used in some analyses.

Beyond secondary data, we also relied on primary data describing manufacturer and distributor use of selected countermarketing and demarketing safeguards and other information pertaining to each firm's distribution infrastructure and/or management policies, to the extent that such data were made public in the case *NAACP v. AcuSport, Inc., et al.* (2003, Appendixes and related materials). We identified countermarketing and demarketing safeguards relative to the six primary pathways of diversion. The selection and operationalization of the specific safeguards investigated were 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). We subsequently describe these data and their collection in greater detail.

Primary Data and Data Collection Procedures

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

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 and requested, and their disclosure was 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 and specific questions to be used in oral depositions of identified individuals who, under oath, were sworn to provide true information regarding their firms' 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 submitted 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, more than 15,000 document pages, 87 depositions containing more than 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 were coded through standard content analysis (Kassarjian 1977; Kolbe and Burnett 1991). Two coders participated in this task. Each held an MBA from an accredited institution, and both were familiar with the firearms industry and diversion based on 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 in which each safeguard was employed by a given firm. For each safeguard, coders consulted documents and depositions and then, when necessary, the interrogatory responses. The availability of three data sources and their order of consultation helped maximize the measurement and evidentiary value of the data. Coding differences were resolved through a modified Delphi process. The resolved data were combined with the original coded data and retained for analysis.⁶

After the coding task was completed and before any differences were resolved, intercoder reliability was calculated following the proportional reduction in loss (PRL) approach (Rust and Cooil 1994). This approach has advantages over other approaches and, given the use of two coders in the current application, is analytically consistent with Perreault and Leigh's (1989) recommendations. 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. 245–46) 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 a priori coder training.

⁶In 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).

Analysis and Findings

To What Extent Are Handguns Diverted to Crime?

To better understand the problem of firearm diversion, we first conducted analyses to determine the extent to which handguns are diverted from legitimate channels of distribution to the illegal marketplace. Focusing on firearms manufacturers, we studied diversion using the “time-to-crime” approach and measured it through a firm’s crime gun performance.⁷ This approach provides a conservative measure of diversion in that it captures the percentage of guns sold in the primary market at a point in time that have subsequently been recovered from crimes (with a short period suggestive of diversion). The approach also adjusts for differential sales volumes across manufacturers. For the analysis, we circumscribed the approach to focus on violent crimes versus all crimes, including those of a nonviolent nature. We operationalized crime gun performance 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 2000. Of the initial sample, data for 29 manufacturers were available for this analysis.

In addition, we gave special attention to the analysis of diversion occurring from manufacturers of junk guns. For this study, the identification of junk gun manufacturers included (1) guns produced in quantity by a small group of manufacturers near Los Angeles known as the “Ring of Fire” (Wintemute 1994) and (2) those identified on the basis of an examination of *Gun Digest* (see Warner 1996) reports that identified suppliers of handguns that were inexpensive (\$150 or less), were low in caliber (i.e., .22, .25, and .32), and had barrel lengths of less than three inches (Vernick, Webster, and Hepburn 1999; Wintemute et al. 1998).⁸ 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 crime gun performance of the handgun manufacturers that were studied. Production data from the ATF’s annual firearms production and export reports were available for 21 of the 29 manufacturers. Together with the reported percentages for crime gun performance, the data indicate that, overall, 10.1% of the handguns distributed into the primary market in 1996 had been used in a violent crime by 2000. This represents more than 135,000 handguns, or 1 in every 10 sold in 1996. As Figure 1 shows, crime gun performance varied widely across manufacturers, with some having less than 1% of their handguns traced to violent crimes in the ensuing four years, while one firm had more than half its handguns sold (55%) in 1996 subsequently recovered and traced to violent crimes by 2000.

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

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

Junk guns. The overall rate of diversion for the nine junk gun firms (depicted in Figure 1 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 crime gun rates for junk gun firms showed a similarly wide range, from 2% to 55%, though concentrated in the higher crime levels. An estimate of the number of junk guns reflected in these data suggests that of the 293,000-plus handguns produced in 1996 by the nine junk gun manufacturers, more than 75,000 were 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, we also conducted analyses 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, this process yielded a measurement set comprised of 13 channel safeguards for manufacturers and 10 channel safeguards for distributors.⁹ A hallmark of each safeguard is its previous identification, articulation, and advancement by stakeholders within the firearms industry. An examination of the countermarketing and demarketing safeguards also reveals that, in general, they are consistent with extant understanding in the academic marketing literature and with 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, Inc., et al.* (2003). However, because of 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 were available for a reduced set of 32 manufacturers and 30 distributors (including 4 of the previously identified nine junk gun manufacturers).¹⁰

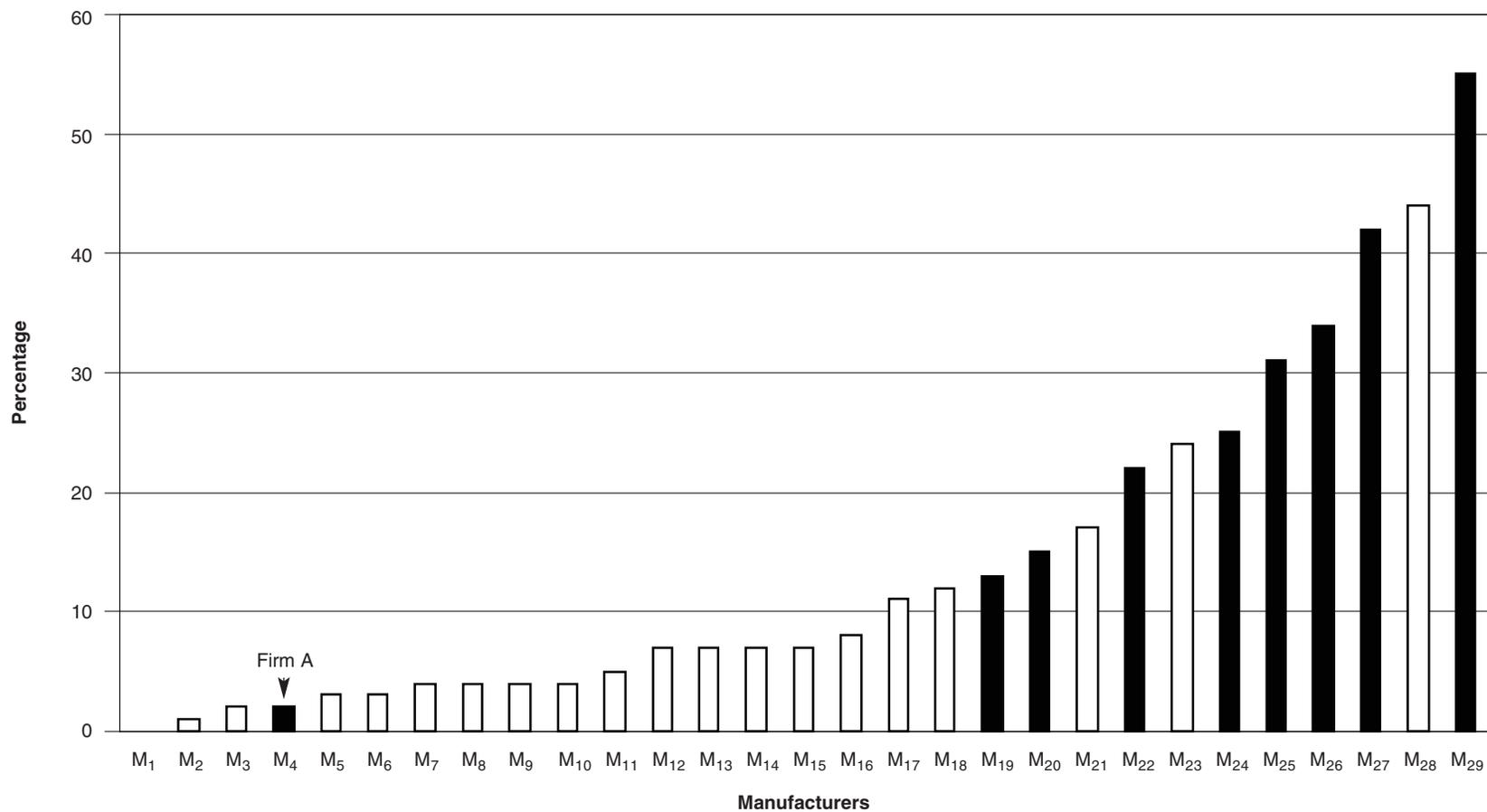
Findings

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 Table 1 shows, the average number of safeguards across the studied firms is very low, averaging together only approximately 1 (1.11) safeguard per firm. Manufacturers averaged 1.31 safe-

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

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

Figure 1. Crime Gun Performance: Percentage of Handguns Distributed into the Primary Market in 1996 and Used in Violent Crimes by 2000



Notes: Black bars denote manufacturers of junk guns.

Table 1. Countermarketing and Demarketing Safeguards: Number of Safeguards

Safeguards	Participation Rate		
	M	Number of Possible Safeguards	Range
Industry			
All	1.11 ^a	13/10	0–5
Channel Member			
Manufacturer	1.31	13	0–5
Distributor	.90	10	0–4
Type of Gun (Manufacturers Only)			
Junk gun	1.25	13	0–3
Others	1.32	13	0–5

^aWe derived the industry statistics by determining the total number of safeguards implemented by both manufacturers and distributors and dividing by the total number of manufacturer and distributor firms.

guards, and distributors averaged .90 safeguards. Manufacturers of junk guns participated in an average level of safeguards (1.25).

Type of safeguard. Organized according to the six major pathways of diversion, Table 2 reports the percentage of manufacturers and distributors employing each type of safeguard. Of the 23 safeguards examined (13 manufacturer and 10 distributor safeguards), only 6 exceed a participation rate of 15%. For manufacturers, the more heavily adopted safeguards involved diversion occurring through nonstore/nonstocking dealers (25.0% required direct dealers or program dealers to have a storefront place of business, and 21.8% required that distributors sell to dealers, which in turn could only sell to storefront places of businesses). In addition, 18.7% disseminated materials on straw purchases to others in their distribution system, and 15.6% restricted their distributors from selling at gun shows. For distributors, to safeguard against diversion occurring through unscrupulous/corrupt dealers, 23.3% stopped selling, would not sell, or would stop selling to indicted dealers, and to safeguard against diversion occurring through nonstore/nonstocking dealers, 23.3% required their dealers to 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 summary, these results suggest that 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 some type of channel safeguards, while 13 distributors (43%) did not participate in any of the safeguards. Finally, as we indicated, 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 efforts against diversion, a critical question pertains to the

efficacy of the safeguards.¹¹ To examine the effect of manufacturer channel safeguarding practices on diversion, as measured through crime gun performance, we merged data from the judge's report on violent crime gun rates with data on manufacturer safeguarding activity. This yielded a subsample for analysis of 25 manufacturers. Included here are 8 firms for 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 this, together with sample-size constraints, the study followed accepted procedures for the treatment of missing data (Hair et al. 2006) with a set of reasonable assumptions used for treatment of the firms in default:

1. *Assumption 1: no safeguards.* In law, default is interpreted as the lack of an affirmative defense against a plaintiff's allegations based on the failure to respond to a legal summons or appear before the court of jurisdiction. Following this logic, we treated defaulting firms ("defaults") as having engaged in none of the safeguards, thus retaining all 25 firms.
2. *Assumption 2: average safeguards.* Apart from the standards of law, accepted procedures in the social sciences for the treatment of missing data include their substitution. Following this approach, we treated defaults as engaging in safeguarding activity at the same rate of all manufacturers whose safeguarding activities had been measured. Thus, we assigned each defaulting firm an assumed safeguarding rate of 1.31 (the average safeguard rate for manufacturers), again retaining all 25 firms.
3. *Assumption 3: deletion of defaults.* Accepted procedures in the social sciences also include the deletion of sample members containing missing data. Following this approach, we deleted defaulting firms from the sample, leaving a subsample of 17 manufacturers.

Applying these assumptions, we investigated the effect of number of safeguards by a manufacturer on its crime gun performance. We also investigated these effects for individual types of safeguards on crime gun performance. Given that theory suggests that safeguards deter diversion, we deemed directional one-tailed tests to be appropriate, and given the significance of this issue, we decided on a critical level of .10. In addition, because in its original form crime gun performance is a proportion bounded by 0 and 1.00, we performed a logit transformation with the derived variable used in the analysis (Gujarati 1988).

Findings

Number of safeguards. Applying the three assumptions for treatment of defaulting firms, in Table 3, we provide the summary statistics for regression models investigating the relationship of number of safeguards and diversion as measured through crime gun performance. Note that significant relationships emerge under all three assumptions. Applying Assumption 1, we find a significant, negative relationship ($b = -.425$, $p = .017$) between number of safeguards and crime gun performance; specifically, the more safeguards a manufacturer participates in, the lower is the incidence of its guns being recovered from violent crime. Applying

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

Table 2. Countermarketing and Demarketing Safeguards: Type of Safeguard

Six Pathways of Diversion/Safeguard	Participation Rate
1. Unscrupulous/Corrupt Dealers	
<i>Manufacturers ...</i>	
•Analyzes trace information to identify in any way problem distributors or dealers.	9.4%
•Has stopped, would not sell, or would stop selling to indicted dealers.	6.3%
<i>Distributors ...</i>	
•Analyzes trace information to identify in any way problem distributors or dealers.	13.3%
•Has stopped, would not sell, or would stop selling to indicted dealers.	23.3%
2. Nonstore/Nonstocking Dealers	
<i>Manufacturers ...</i>	
•Requires that distributors sell to dealers who, in turn, only sell to storefront place of business.	21.8%
•Requires direct dealers or program dealers to have storefront place of business.	25.0%
<i>Distributors ...</i>	
•Requires that their dealers operate from a storefront place of business.	23.3%
3. Gun Shows	
<i>Manufacturers ...</i>	
•Restricts their distributors from selling at gun shows.	15.6%
•Restricts their distributors from selling to dealers who, in turn, sell at gun shows.	6.3%
•Restricts their direct or program dealers from selling at gun shows.	9.4%
<i>Distributors ...</i>	
•Restricts their dealers from selling at gun shows.	3.3%
4. Straw Purchases	
<i>Manufacturers ...</i>	
•Has disseminated materials on straw purchase to others in their distribution system.	18.7%
•Has trained others in their distribution system on straw purchases.	9.4%
<i>Distributors ...</i>	
•Has disseminated materials on straw purchase to dealers.	13.3%
•Has trained dealer on straw purchases.	13.3%
5. Multiple Sales	
<i>Manufacturers ...</i>	
•Limits multiple sales in their distribution system.	.0%
•Attempts to obtain information from members in their distribution system about multiple sales.	.0%
<i>Distributors ...</i>	
•Limits dealer multiple sales.	.0%
•Attempts to obtain information from dealers about multiple sales.	.0%
6. Thefts	
<i>Manufacturers ...</i>	
•Requires members in their distribution system to take measures to prevent theft.	6.3%
•Requires that members in their distribution system report incidents of thefts to them.	3.1%
<i>Distributors ...</i>	
•Requires dealers to take measures to prevent theft.	.0%
•Requires that dealers report incidents of thefts to them.	.0%

Assumption 2, we find a significant, negative relationship ($b = -.308$, $p = .067$). When we apply Assumption 3, in which defaults were deleted and the sample size was reduced, the results support the hypothesis of safeguard efficacy ($b = -.347$, $p = .086$).

We then conducted further analyses to follow up on the distinction in results depending on the treatment of defaulting firms. We note that Assumption 3, in which defaults were deleted from the analysis, not only reduces the relatively small sample size but also ignores other information regarding these defaulting firms. Thus, we first conducted more specific analysis of the eight defaulting firms. For these analyses, we identified a natural discontinuity in the crime gun performance data near the median (between 8% and 11%, see Figure 1). Manufacturers (11 firms) with crime gun performance of 11% or more were subsequently

assigned to the “higher crime gun group.” Manufacturers (14 firms) with crime gun performance of 8% or less were assigned to the “lower or moderate crime gun group.” Observing the resulting membership of the defaulting firms, we found that only 1 was in the lower or moderate crime gun group (representing 7.1% of this group), while 7 were in the higher crime gun group (representing 63.6% of this group), a strongly statistically significant difference ($t = 3.36$, $p = .003$).

In addition, we conducted a test of crime gun performance between defaults and nondefaults. This analysis showed that the average crime gun performance of 20.5% for defaulting firms was significantly higher than the crime gun rate of 10.3% for nondefaulting firms ($t = 1.85$, $p = .043$). As a result, we conducted an additional test that also applied Assumption 3 (i.e., deleted defaults). Here, we

tested differences in the number of safeguards by firms in the lower or moderate crime gun group versus those in the higher crime gun group and found the results to be significant. Firms in the higher crime gun group employed an average of only .50 safeguards compared with 2.08 safeguards on average for firms in the lower or moderate crime gun group ($t = 2.79, p = .014$).

In the higher crime gun group, across all firms, little safeguarding activity is apparent: Of 52 possible actions, this group reported only 2, for an approximate rate of 4%. In contrast, the lower or moderate crime gun group participated in 15.9% of 169 possible safeguarding activities. Of these 13 manufacturers, 9 (~70%) engaged in at least one countermarketing or demarketing safeguard activity, with 6 firms engaged in three or more activities. In conclusion, from 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 crime gun rates? The low levels of safeguarding undertaken overall and the relatively small sample size precluded an overall analysis with each safeguard included.¹² However, as Table 3 shows, we conducted individual simple regressions to investigate the relationship of each individual safeguard and diversion as measured through crime gun performance. Applying Assumption

¹²Small 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).

1, we find 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) straw purchases ($b = -.276, p = .091$), suggesting their individual utility.¹³ Note that these are the safeguards that were being employed at higher levels in the industry.¹⁴ Similarly, applying both Assumptions 2 and 3, we also find significant, negative effects for safeguards involving diversion through nonstorefront/nonstocking dealers ($b = -.302, p = .071$; $b = -.341, p = .051$, respectively).

In summary, the set of findings provides evidence that countermarketing and demarketing safeguards used by manufacturers are associated with reduced levels of firearm diversion overall and that manufacturers with higher crime gun 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 straw purchases.

Are Other Factors Relevant for Understanding These Findings?

A further question centers on the nature and impact of various factors (and particularly barriers) on the use of countermarketing and demarketing safeguards by manufacturers and distributors. As we noted in the preceding analysis, despite evidence suggesting the positive effect of safe-

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

¹⁴We did not expect the data for illegal sales (used by only 4 firms), thefts (used by only 2 firms), and multiple sales (not used by any firm) to yield significant differences because of their lack of variation, and they did not.

Table 3. Manufacturer Safeguarding Practices and Crime Gun Performance Regression Statistics

Assumption	Assumption Description	Regression Statistics	Individual Safeguards			
			All Safeguards	Nonstore	Gun Show	Straw Purchase
1	Defaulting firms implement "0" safeguards	Standardized regression coefficient	-.425	-.447	-.341	-.276
		Significance	.017	.0125	.0475	.091
		R ²	.180	.199	.116	.076
		F-test	5.059	5.727	3.027	1.897
		d.f.	24	24	24	24
2	Defaulting firms implement the average number of safeguards	Standardized regression coefficient	-.308	-.302	-.224	-.147
		Significance	.067	.071	.141	.242
		R ²	.095	.091	.050	.022
		F-test	2.413	2.31	1.22	.509
		d.f.	24	24	24	24
3	Defaulting firms deleted	Standardized regression coefficient	-.347	-0.341	-.304	-.200
		Significance	.086	.051	.118	.222
		R ²	.121	.168	.093	.04
		F-test	2.056	3.026	1.532	.622
		d.f.	16	16	16	16

guards on reducing the occurrence of diversion, almost half the studied firms engaged in none of the investigated safeguards, others engaged in only one, and a few firms engaged in higher numbers (with numerous additional firms providing no information). Are there differences extending from available resources across firms that help explain these findings? Are there differences extending from each firm's distribution infrastructure and management policies that help explain these findings? Finally, are there qualities inherent to the countermarketing and demarketing safeguards themselves that help explain these findings? To investigate these questions, we conducted several analyses.

To assess the impact of resources available for implementing safeguards, we obtained a surrogate measure, average market share from 1996 to 2000, for manufacturers and distributors from published information in the case *NAACP v. AcuSport, Inc., et al.* (2003, Appendixes).¹⁵ We merged these data with data describing each firm's safeguarding activity, yielding a sample of 17 manufacturers and 29 distributors.¹⁶ We then employed regression analysis to assess the relationship between market share and the number of safeguards employed.

To examine the impact of each firm's distribution infrastructure and management policies on countermarketing and demarketing safeguards, we identified 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), again based on published information in the case *NAACP v. AcuSport, Inc., et al.* (2003, Appendixes).¹⁷ The analysis compared the 18 manufacturers and 17 distributors employing at least one safeguard with those for the 14 and 13 nonsafeguarding manufacturers and distributors, respectively.

For examining the impact of the countermarketing and demarketing safeguards themselves on safeguarding, we investigated patterns in the adoption of each of the countermarketing and demarketing safeguards across firms. Given that each safeguard possesses certain attributes (e.g., costs, requirements, risks), we expected 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 are high) being favored and others (i.e., those with lower benefits and higher costs) being avoided across the industry. The analysis relied on prior data for the 32 manufacturers and 30 distributors for which safeguarding data were available.

¹⁵Though an imperfect measure of a firm's resources given that it overlooks costs, financial data pertaining to members of the firearms industry are not widely available because of their often privately held status.

¹⁶For these analyses, we employed Assumption 3 for manufacturers and extended it to distributors.

¹⁷This 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 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 on to administer such safeguarding efforts.

Findings

Resources. We used regression analysis to assess the impact of resources (i.e., market share) on countermarketing and demarketing safeguards. For manufacturers, the relationship of market share to 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, we compared safeguarding and nonsafeguarding firms across variables describing their distribution infrastructure and management policies. Comparisons of safeguarding and nonsafeguarding manufacturers across 25 variables revealed few differences. For 22 variables (88%), the two groups' proportions were either identical or similar. We observed three significant ($p < .10$) differences, reflecting policies pertaining to "minimum order volume," "recommended prices," and the presence of "formal distributor agreements." Comparisons of safeguarding and nonsafeguarding distributors 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. We observed only one significant ($p < .10$) difference (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. A closer examination of the individual safeguards shows that 21.8% and 25.0% of the manufacturers adopted the two safeguards for diversion occurring through nonstore/nonstocking dealers. For distributors, there was less dispersion, with 6 of the 10 safeguards (60%) being adopted by at least one firm. For individual safeguards, 23.3% of the distributors adopted both the safeguard against nonstore/nonstocking dealers and one of the safeguards against diversion occurring through unscrupulous/corrupt dealers. None of the distributors adopted the two safeguards for multiple sales and thefts. 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 a priori expectation that the underlying properties of the safeguards lead to more systemic patterns of adoption (i.e., some safeguards being systematically favored and others being systematically avoided). We examine this finding again in the "Discussion" section.

Alternative Explanations

To further understand the findings related to the efficacy of countermarketing and demarketing safeguards against firearm diversion, we also investigated other potential explanations that could account for the observed results. For example, could junk guns and the conduct of junk gun manufacturers relative to their counterparts account for this finding? As we noted previously (see also Figure 1), junk guns are more likely to be involved in crime and, therefore, to be the target of diversion. Could it be that these manufacturers are also choosing to engage in fewer safeguards than other firms, thus making this alternative explanation plausible? We investigated this possibility in several ways.

The analysis shows that though junk guns are a serious problem, they make up only a slight majority of handguns diverted to crime; according to our data, junk guns accounted for approximately 55% of crime guns in the period. Thus, 45% of the actual phenomenon is not explained by 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 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 (Firm A) that is exhibiting outlier behavior in the group. Firm A reports the implementation of a relatively high level of safeguards (three safeguards, in comparison with the average of only .33 by other junk gun makers). As Figure 1 shows, Firm A's crime gun rate is only 2%; this is in comparison with an average crime rate of 26% for the other junk gun manufacturers. This result not only 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, although 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 the alternative explanation suggests.

Limitations

Before we discuss the implications of the study's findings, it is important to consider the interpretation and application of these findings in the context of the study's parameters.

¹⁸First, neither the mean nor the median market share of firms that manufacture junk guns (2% and 2%, respectively) significantly differs from those that do not (4% and 2%, respectively) ($t = .971$, $d.f. = 25$, $p = .341$, not significant [n.s.]). Second, the mean number of safeguards employed does not differ between junk gun manufacturers (.75) and non-junk gun manufacturers (.54), and it is directionally opposed to expectations ($t = -.800$, $d.f. = 30$, $p = .469$, n.s.) (this relationship did not change when defaulting firms were added to the analysis with an assumption of no safeguarding activity [$t = -.525$, $d.f. = 51$, $p = .602$]). Finally, the average number of safeguards implemented by junk gun manufacturers using safeguards (1.25) does not differ from the number implemented by non-junk gun manufacturers (1.32) ($t = .083$, $d.f. = 30$, $p = .934$), and this finding does not change when defaulting firms are added with the assumption of no safeguarding ($t = .160$, $d.f. = 51$, $p = .874$).

Although the study's sample was representative of a large portion of U.S. handgun sales, not every manufacturer and distributor was represented. In addition, despite three distinct sources of 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. However, this potential is mitigated, at least in part, by the nature of inquiry permitted through discovery and the multiple sources and methods of data and data collection. In relation to our measures, note that the operationalization for a diverted handgun is based on a handgun's "time to crime." Though employed by others, such a measure cannot discount that a handgun may have traveled through the secondary market before being recovered at a crime. In addition, given our reliance on tracing data involving violent crimes, it is appropriate to disclose that though employed by law enforcement studies on firearm diversion, as we noted, the use of these data has been considered controversial by some. Furthermore, despite focusing on safeguards previously identified by industry stakeholders and investigating their use by a large majority of manufacturers and distributors, we did not investigate all possible safeguards, nor could we study all firms in the industry because of the safeguards we chose to focus on and the defaults by some firms. In addition, notwithstanding the representativeness of our sample, we acknowledge the limitations inherent to small sample sizes.

Discussion

Motivated by the tragedy of harm associated with the marketing problem presented by firearm diversion, the current study addresses 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, we investigated several important questions at the core of the debate over firearm diversion. The findings provide important and previously unavailable insights into firearm diversion and the role of firearms marketers in safeguarding against diversion occurring in their retail distribution systems. In addition, the study 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. Next, we discuss these findings (and illustrations) and their implications.

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 one in ten) distributed into the primary market in 1996 were used in violent crimes by 2000, thus documenting the problem of firearm diversion. The finding that diversion varied widely across manufacturers in general, and disproportionately so for junk gun manufacturers, suggests that the prob-

lem 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” when addressing this issue; a focus on individual manufacturers and products is more likely appropriate.

Do firearms marketers countermarket and demarket against this diversion? The finding of a low level of safeguarding practices across most firms has not been previously acknowledged. 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 is 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, in general, more safeguarding—in particular, higher levels of safeguarding against diversion through nonstore/nonstocking dealers, gun shows, and straw purchases—is 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 that 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 show that, in general, manufacturers and distributors that employed at least one safeguard did not differ from nonsafeguarding 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 that 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 further study. These analyses provide some evidence that nonsafeguarding firms differ little from their safeguarding counterparts on several relevant factors. Together, they indicate 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 industrywide 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 indicate at least the possibility that many of the safeguards have acceptable properties for adoption by industry members.

Do other explanations account for the observed efficacy of the safeguards? 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 concern about the behavior and performance of junk gun manufacturers is warranted, our investigation strongly suggests that this is likely not the case.

Related Research for Understanding

A question we did not directly investigate, but one that is nonetheless important for understanding and addressing firearm diversion, can be characterized as follows: Will criminals just avoid the safeguarded pathways for diversion and get their guns elsewhere? Recent evidence indicates 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 approximately one-fifth of the city's crime guns) 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 crime guns found in the city and discovered a 44% decline in this important statistic (a comparison with trends in three other Midwest cities showed that it was unlikely that the decline was due to other factors). Thus, although some substitution will undoubtedly occur, the findings of this case study suggest that the overall volume of guns diverted to crime is reduced when safeguards are implemented in the primary market. As of the time of this submission, additional studies investigating these and related effects were underway.

Factors Affecting the Adoption of Safeguards

An important finding in the study is that despite results that suggest the capacity of safeguards to reduce diversion, firearms marketers adopted few of the studied countermarketing and demarketing safeguards (see Table 2). Given that these safeguards involve those specifically identified by industry stakeholders, what factors may account for this finding? The results of our examination of firm resources for supporting safeguards and the presence of infrastructure and management policies for the implementation of the safeguards provide 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 when there are perceptions that (1) they may yield unintended (Messeri et al. 2006) or opposite (Farrelly et al. 2002) effects on those targeted or may negatively affect others (Gallagher 2001); (2) they may undermine economies of scale (Gallagher 2001), create competitive disadvantages (MacStravic 1995), or result in negative effects for long-term profitability (Gautier 2001); and (3) they may create ethical questions (Beeton and Pinge 2003) or unintended policy effects (MacStravic 1995).

Alternatively, countermarketing and demarketing measures are more likely to be embraced when (1) they are required by law or there is a risk of prosecution or litigation when 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 several insights for understanding and addressing firearm diversion as well as avenues for further inquiry.

Economics. Some safeguards, including restricting sales at gun shows and limiting multiple sales, have direct economic implications for the marketer. For example, some members of the industry consider gun shows an important outlet for the sale of firearms. Multiple sales are also relatively frequent 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 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 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 can help avoid conflicts that might result between retailers that invest in such resources and those that do not. Given their use, the identification of safeguards that have the prospect of similar "dual" benefits appears promising as a method for motivating increased use of safeguards in the future.

Power relations. Requiring dealers to allocate resources to theft prevention and straw purchase 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 increase the use of safeguards into the future.

Values and norms. Some firms may believe that certain safeguards run counter to deeply held values. For example, some may view a policy such as not selling to an indicted distributor or dealer 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. United States* 1895). Others may find any safeguard that limits 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 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 determin-

ing instances of multiple sales. Given the confidentiality common to private business, some firms may have been unaware of or simply may not have considered instituting certain possible safeguards. The surprisingly wide variation in choice of specific safeguards to employ suggests that this could be the case.

Efforts to Reduce Firearm Diversion

This research offers significant information that could be potentially helpful to a broad range of efforts to address diversion and reduce its occurrence. We discuss some of these efforts next.

Individual efforts. As we described, various lawsuits by institutions and individuals have attempted to define and enforce the role of firearms marketers by drawing on standards from common law, including negligence and nuisance. These industrywide lawsuits have had mixed success. Individual lawsuits have also been filed, some of which have ultimately been 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 several prior lawsuits continue to advance as a result of 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 we previously described, the National Shooting Sports Foundation, a 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 the illegal straw purchase of firearms. The program educates firearms dealers and their employees on how to recognize and deter the illegal purchase of firearms through straw purchases. According to the National Shooting Sports Foundation (2009), since the inception of this program, "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, the finding that, as of 2000, relatively few manufacturers and distributors had disseminated materials to or trained others in their distribution system on straw purchases demonstrates the opportunity for industry-sourced programs against diversion.

Governmental efforts. Mayors Against Illegal Guns is a coalition of more than 250 mayors from more than 40 states that is working to prevent criminals from illegally obtaining guns and preventing those who obtain them from using them. The coalition is active in addressing issues surrounding all aspects of firearm diversion. Its activities include targeting and holding accountable irresponsible gun dealers; collaborative efforts with gun dealers to deter the occur-

rence 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. The findings from the study help 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) has proposed to address the so-called gun show loophole. Federal law currently permits people 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 needing to worry about any background checks. The legislation proposes that the background check requirement includes 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 aforementioned governmental efforts, the study's findings provide information and findings that should help inform this and other legislation attempting to address firearm diversion.

Enforcement efforts. Though laudable, efforts by law enforcement are challenged in part by the large number of licensed firearms dealers and volume of guns sold compared with 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 such as 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, nonpartisan, grassroots organization whose objectives are to prevent gun violence. Both organizations have been actively involved in addressing firearm diversion. The Brady Center recently launched the Campaign Against Illegal Guns, a multiyear 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 can employ their buying power to motivate manufacturers' use of safeguards against diversion. The results from the current study provide information that should help 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). 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 or 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 about 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 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 that they are collected under oath and against the penalty of legal sanction. With few exceptions, the nature and use of such data have 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 previously available to aid in reducing the occurrence of firearm diversion. We encourage the field of marketing to engage in further steps to assist in addressing this important goal.

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