

CHAPTER 3

*The American Gun Industry:
Designing & Marketing
Increasingly Lethal Weapons*

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At the turn of the nineteenth century the American gun industry—driven by the needs of the fledgling nation’s military, fueled by government funding, and inspired by the inventive spirit of a few key minds—developed a system of mass production and uniformly interchangeable parts known as the “armory practice.” Refined over several decades by the gun makers, the armory practice became broadly known as “the American system of manufacture” as it was spread by mechanical artisans to the manufacture of such commodities as sewing machines, clocks, farm machinery, bicycles, and automobiles. The American system in turn led to mass production and mass consumption.¹ Thus, the American gun industry is quite literally the father of the system of mass production of consumer goods that lies at the heart of American industry, indeed, of much of the world’s industry.

Like the other industries it helped spawn, the gun industry learned that mass production of consumer goods carried within it a bitter seed. Production often exceeded natural demand. Techniques of mass marketing thus became the necessary handmaiden of mass production. The profession of “consumption engineer” arose in industry. The new profession’s task was to “manufacture customers,” principally through advertising.² One familiar example of such mass marketing is the automotive industry, the techniques of which were highly refined in the early twentieth century and resulted in the demand-generating artifice of the annual model change. That industry came to epitomize the relentlessly competitive “search for novelty” that characterizes mass marketing. The

process consists of two stages: first innovative design and then exploitation of the new design, often through aggressive advertising.³

The mass-marketing techniques of the gun industry are less familiar to the general public than those of the automotive industry, but at bottom they are similar. Driven by the same imperatives as the automotive industry, the gun industry has diligently pursued design innovation and has aggressively exploited new designs to manufacture customers. Understanding these techniques is essential background for evaluating the contemporary debate about the industry's responsibility for gun violence. Lately, this debate has increasingly focused on assertions that specific gun designs developed in the race for innovation, and marketing techniques developed to exploit them, contribute to high rates of gun violence and resulting death and injury. This chapter offers an overview of the gun industry's contemporary mass marketing and an analysis of its impact on gun violence.

A Sketch of the Modern Gun Industry in America

The structure of the gun industry is relatively simple. Domestic and foreign manufacturers make the firearms. In a few cases, such as Glock handguns, the firearms parts are manufactured abroad, then imported and assembled at plants in the United States. Domestically manufactured or assembled firearms are distributed by the manufacturers, either through wholesalers (known in the industry as distributors) or directly to retail gun dealers. The pattern is not uniform—some manufacturers sell only through distributors, while others prefer to sell directly to retail dealers. Because retail dealers are typically thinly capitalized and in no position to bargain, the choice of distribution channels is the manufacturer's. It is made on the basis of whichever arrangement the manufacturer decides is to its financial, competitive, or contractual advantage.⁴ Foreign-made guns, including stocks of military surplus that are not barred by U.S. law for civilian ownership, are brought into the country through importers and then enter the same channels of commerce.

Domestic firearms manufacturers, importers, dealers, and ammunition manufacturers are required to obtain Federal Firearms Licenses.⁵ Firearms manufacturers and importers may deal in firearms at their licensed premises without obtaining a separate firearms dealers license.⁶

There is no separate federal license for wholesalers (distributors), as there is, for example, in the case of alcoholic beverages.⁷ Distributors and retail dealers get the same federal firearms dealers license but function at different points in the stream of commerce. This licensing regimen affects the central purpose of the Gun Control Act of 1968—the core federal gun law—of supporting state control of firearms by basically forbidding interstate commerce in guns except through federally licensed dealers. However, Federal Firearms Licenses are issued on a virtually pro forma basis—anyone who is at least twenty-one years of age, has a clean record, has business premises, and agrees to follow all applicable laws can get a license good for three years upon paying a fee and submitting a set of fingerprints with an application form.⁸

New and imported firearms thus always transit in legal commerce through at least one federally licensed seller though the point of the first retail sale. (Some aspects of the illegal trade in firearms are discussed in a later section.) The federal Brady Act requires a background check as a prerequisite to any retail sale through a federally licensed dealer. However, once a gun has been sold at retail it may be resold in the secondary market—that is, not through a federally licensed dealer—using any one of a variety of channels, none of which require the federal Brady Act background check and most of which are unregulated by most of the states. Vehicles for these secondary market transfers include classified advertising in newspapers and newsletters, Internet exchanges, and informal sales between individuals at flea markets or gun shows. About 40 percent of all gun transfers are made through this secondary market, according to a 1994 national survey.⁹

The federal government does not regulate commerce in ammunition beyond the ammunition manufacturer's license (excepting only such minor constraints as the prohibition against civilian sale of armor-piercing handgun ammunition). Ammunition is therefore freely bought and sold in an opaque market, free of background checks, record keeping, and restrictions on interstate shipment to and from unlicensed individuals. This is a remarkable anomaly for two reasons. The first, in the words of a former industry executive, is that "ammunition manufacturers are the silent power in the gun industry."¹⁰ A gun is a one-time sale for a firearm manufacturer, but ammunition manufacturers sell their product throughout the lifetime of the gun. Moreover, if ammunition manufacturers are unenthusiastic about a proposed firearm design involving a

new ammunition configuration (e.g., caliber or case dimensions) and won't make ammunition for it on a commercial basis, the product will wither. The second is the curious result that, although felons are deterred from buying firearms by the system of background checks, they can have ammunition delivered to their doors with no questions asked once they obtain a gun through illegal channels.

One way to look at the business of guns is through the ubiquity of its products. Guns have been a central part of American life from its beginnings,¹¹ but no one knows exactly how many there are in America, their breakdown by type and caliber, or who owns them. The federal government estimates that 215 million firearms were in civilian hands in the United States in 1999.¹² This estimate was derived simply by adding the net of roughly known domestic manufacturing, export, and import data for the period 1995 through 1999 to the estimate of gun ownership produced by a 1994 sample survey sponsored by the Police Foundation. Given the limitations of the data sources—the industry is closely held and secretive, and the government collects a minimum of mostly tax-related data—this government estimate is as good as the available data allow.¹³

Given that the population of the United States in April 2000 was 281.4 million,¹⁴ one might conclude that—at a ratio of seventy-six firearms per one hundred people—virtually every adult in America owns a gun. (Using later and slightly different figures in a 2003 report, the independent international Small Arms Survey arrived at the higher ratio of between eighty-three and ninety-six guns per one hundred people in the United States.)¹⁵ Such a uniform distribution of firearms would have powerful political and policy implications.

However, the proportion of households that own firearms is declining, and gun ownership is increasingly concentrated in a minority of hands. Only about one-quarter of adults in the United States own a gun, and about one in six owns a handgun.¹⁶ A national survey of gun ownership in 1994 found that “10 million individuals owned 105 million guns, while the remaining 87 million guns were dispersed among 34 million other owners.”¹⁷ In sum, fewer and fewer people own more and more guns. This has important and chronic implications for the gun industry. It has forced a premium on design and marketing innovation to stimulate people who already own guns to buy more and to attract new buyers to overcome a continual market contraction.

Even so, as the Small Arms Survey concluded in its report, “[b]y any measure, the United States is the most armed country in the world. It far surpasses second-highest Yemen, home to roughly 33 to 50 firearms per 100 people, or third-highest Finland with 39 per 100.”¹⁸ It is no wonder that an informed industry observer described the United States as “the last great market” for guns.¹⁹

Although the firearms industry is generally in long-term decline, it still enjoys peak years and is quite robust enough to generously slake the last great market’s thirst. In 1999—the latest year for which domestic manufacture, export, and import data are all available—a net of 4,683,620 new firearms were made available for sale on the U.S. civilian market. Of these, 1,702,016 were rifles, 1,425,653 shotguns, and 1,555,951 handguns. Foreign imports accounted for 892,000 of those firearms. Two cautions are in order. One, these figures represent only new firearms entering the distribution channels of the civilian market, not actual retail sales, which might be more or less than the numbers given here, depending on the relation of sales to inventory. Information on retail sales of firearms is not collected on a national basis. Two, the figures do not include sales of used firearms, which is estimated to total about another 2 million a year, mostly in the secondary market.²⁰

Another dimension of the gun industry is its economics. According to the 1997 report of the quinquennial Economic Census, 191 companies (representing 198 manufacturing establishments) manufactured small arms in the United States, producing total shipments worth \$1.25 billion.²¹ Although the number of manufacturing establishments increased from 184 reported in the 1992 Economic Census, the value of shipments declined almost 10 percent from \$1.38 billion over the same period, a symptom of the industry’s long-term ill health.²² Another 108 small arms ammunition manufacturing companies (representing 113 manufacturing establishments) produced shipments worth \$938.8 million in 1997.²³ The number of small arms ammunition manufacturing establishments grew from 102 in 1992, but the value of their shipments declined by slightly more than 8 percent from \$1.02 billion in 1992.²⁴

An interesting anomaly is the much larger number of persons licensed to manufacture firearms and ammunition in 1997 compared to the number of companies reporting actual production in the census. In that year there were 1,414 active firearms manufacturer licenses (as opposed to 198 manufacturing establishments reported in the census) and 2,451 ammuni-

tion manufacturing licenses (as opposed to 113 reported ammunition manufacturing establishments).²⁵ There is probably nothing sinister in this disparity. Some are possibly licenses issued to hopeful inventors or to very small operations. However, a chronic feature of the federal licensing system is the practice of acquiring licenses for personal convenience rather than for trade.

The total of 191 firearms manufacturing companies reported in the 1997 census is misleading if it is not kept in mind that the industry is in fact highly concentrated. It is a sort of inverted pyramid in terms of production, with a few big manufacturers at the top and a string of smaller companies scrabbling for the rest of the market, down to individual gunsmiths making only a few firearms each year in the equivalent of a garage workshop. In 2000, for example, three companies produced 53 percent of the rifles made in the United States, three companies produced 86 percent of the shotguns, two companies produced 76 percent of the revolvers, and four companies produced 55 percent of the pistols.²⁶

Foreign imports represent a substantial addition to this domestic production. Contrary to popular belief, the United States has been uniformly a net importer of civilian firearms. From 1990 to 1999, net imports averaged about one million guns a year, of which about half were handguns.²⁷

A perspective on the gun industry's size can be gained by comparing the \$2.2 billion combined value of firearms and ammunition shipments reported in the 1997 Economic Census to the \$28.3 billion reported by cigarette manufacturers and the \$27.7 billion reported by distillers, wineries, and brewers.

There was a total of 81,325 dealer and pawnshop licensees in 1999, the last year for which comprehensive data is available. These licensees represent the main outlets for retail sales. However, according to the federal government, in 1998 a full 31 percent of these licensees had not sold a single gun during the previous year, a figure down from 46 percent in 1992. This large proportion of licensees who are not actively selling guns (sometimes called "kitchen table" dealers) is a consequence of the underlying value of the federal license—it enables the holder to purchase guns from out of state at wholesale prices, not only for himself but for friends and others.

Kitchen table dealers present a troubling potential for diversion of firearms into criminal channels. This has inspired a measure of reform.

In 1993 there were 284,117 federally licensed dealers in the United States. Passage of the 1993 Brady Act and the 1994 crime bill, both of which tightened licensing requirements, combined with administrative reforms pressed by the Clinton administration, dramatically reduced the number of licensees through such simple regulatory efforts as requiring licensees to specify a place of business and to notify local law enforcement authorities that they are in the gun business. Apparently, many informal dealers (and some storefront dealers) who were operating in violation of local zoning or licensing laws chose not to renew their federal licenses. In addition, federal and local authorities paid joint calls on license holders in Boston, New York, and other cities to ensure that they were complying with all applicable laws.²⁸

There were 755 licensed importers in 1999.²⁹ There is no government data on the number of wholesalers (distributors), as they are simply licensed as dealers, but 132 firearms distributors were listed in a comprehensive directory published in 2002 by *Shooting Industry*, the premier industry journal.³⁰

To sum up, the modern American gun industry is no titan compared to tobacco and alcohol, the other “sin industries.” It is highly concentrated, ambiguously structured, faced with declining markets and foreign competition, and regulated at the federal level only through a system of licenses that are fairly easy to get.

A Brief History

The modern gun industry is a far cry from the preindustrial gun trade that existed from the colonial era to the turn of the nineteenth century. Guns throughout that period were either imported from abroad or made by hand by gunsmiths, who passed their skills down within the family or through apprentices in a typical craft system.³¹ Design innovation was not an imperative and was achieved at a leisurely pace.

This all changed at the turn of the nineteenth century, when an organized firearms industry was first established at the instance and with the crucial support of the federal government. The events of the first several decades of that era established basic patterns and rhythms that have defined the industry to the present. These include a recurring cycle of boom and bust, industry reliance on design innovation to carve out new

markets, the introduction of designs developed for military use into civilian markets, and aggressive marketing to promote sales.

The rebellious colonists founded the first government armory in 1777 at Springfield, Massachusetts, on land that had been used as a training field for militias since the 1600s. The Springfield Armory was a safe place to store and repair arms, out of reach of British sailing ships and the troops they brought with them. But no guns were actually made there until 1795.³² Prior to that date, arms for the U.S. military were either imported from abroad or bought from suppliers, who delivered them to a handful of storage depots. But scandals associated with that system,³³ and later the looming potential of war with France, determined the new government to create its own independent source of weapons by first establishing in 1794 two manufacturing arsenals—one at Springfield and another at Harpers Ferry, Virginia—and later awarding arms contracts to private manufacturers.³⁴

Concurrent with the new government's pursuit of an independent arms supply was a new doctrine's rise to favor in the Army's Ordnance Department, the overseer of contracts with the nascent arms industry. Originally articulated by a French military rationalist, General Jean-Baptiste de Gribeauval, the doctrine called for uniformly manufactured weapons with interchangeable parts. *Le système Gribeauval* was aimed at a major drawback of eighteenth-century warfare. Guns were basically handmade, parts were not interchangeable, and repairs were difficult and could not be made on the battlefield. An army that could issue standard firearms, as interchangeable as its conscripts, and repair them in the field would have the advantage in the new era of massed combat. Such a system was more easily envisioned than achieved, however. But it became a priority of the U.S. Ordnance Department, which ordered its arsenals to figure out how to speed up production and to make uniform firearms with interchangeable parts. In pursuit of the same ends, the Ordnance Department also awarded key contracts to private suppliers.³⁵

Eli Whitney, the inventor of the cotton gin, was awarded one of those contracts and was for a time erroneously credited as the inventor of mass-produced firearms with interchangeable parts, in large part because of a rigged "demonstration" in Washington before President John Adams and other dignitaries.³⁶ Whitney was, in fact, a prescient promoter of the idea, but not an achiever. After several decades of develop-

ment at the government armories, success was finally attained between 1820 and 1824 by John Hall, a subcontractor to the Harpers Ferry Armory.³⁷ The more efficient Springfield Armory arsenal then took the lead in developing the new system of “armory practice” and was a central source of widespread diffusion of the manufacturing process to other industries, such as clockmakers and sewing machine manufacturers.³⁸

The Springfield Armory thus had a national influence that transcended its own production record. It established a new industrial base in the Connecticut Valley—which became known as “Gun Valley”—and attracted hundreds of skilled craftsmen. Many of these craftsmen became the core of the nation’s new gun industry, and through them the system of armory practice quickly spread to the next new breed of gun makers—the makers of patent arms. As government contracts with private arms makers faded in the 1840s until the Civil War, these entrepreneurs “capitalized on forty years of government-sponsored development in manufacturing technology,”³⁹ combined the newly emerging mass-production methods with clever innovations in firearm design, and turned to mass-marketing techniques to generate sales in the civilian market.

Samuel Colt is the premier example of the Gun Valley patent arms maker. Colt invented the first practical revolving cylinder handgun design and won U.S. Patent No. 138 for it in 1836. The “revolver” made it possible for an individual to carry on his person a handgun that could fire multiple shots without reloading, arguably the greatest advance in civilian killing power in history. Although the idea of a handgun with a revolving cylinder was not new, Colt was the first to come up with a design that worked well.⁴⁰

After initial promise, however, Colt’s original company failed and began bankruptcy proceedings in 1842. Fate intervened in the form of a U.S. Army captain named Samuel H. Walker, who had been impressed with Colt firearms while fighting Indians in Florida and Texas. Walker’s interest led to a contract for Colt from the U.S. Ordnance Department, and Colt found himself back in business, making a newly designed revolver called the Colt Walker.⁴¹ Another gun, the Colt 1873 Single Action Army revolver, was named the Peacemaker and became popularly known as “the gun that won the West.”⁴²

In addition to design innovation and government largesse, Colt’s success depended on his seizing another innovation in combination with the

revolver—mass marketing. According to the company, “Sam Colt was later recognized as one of the earliest manufacturers to fully realize the potential of an effective marketing program that included sales promotion, publicity, product sampling, advertising, and public relations.”⁴³

Horace Smith and Daniel B. Wesson formed a partnership in 1852 to manufacture a handgun that fired a fully self-contained cartridge. This significant advance in firearms design made reloading much quicker than the cumbersome process of separately loading the bullet, powder, and percussion cap that the Colt revolver required.⁴⁴ Smith & Wesson is today the leading revolver maker in America, producing 41 percent of domestic manufacture in 2000. Other patent arms makers with similar histories became well known as “old-line” firearms manufacturers. They included trademarks such as Winchester, Remington, Marlin, High Standard, and Ithaca.

The Civil War gave the gun industry its next big boost. Conscripts who would never otherwise have had occasion to possess a firearm were introduced to guns. The Union army allowed its soldiers to take their guns home with them upon demobilization. Vast numbers of people thus became used to firearms and willing to buy them in the civilian market. For the next hundred years, the industry’s fortunes waxed and waned. Civilian marketing emphasized self-defense, hunting, and marksmanship.

The modern firearms industry as it exists today began to stir as the nation emerged from World War II. New manufacturing enterprises were founded, many in states like California and Florida, far from Gun Valley but offering less costly production. Foreign gun manufacturers also discovered the vast American market and devised strategies to penetrate it. These included quietly buying out a number of well-known old-line American companies while keeping up the facade of their historic names, such that today many American gun buyers aren’t even aware of the foreign ownership of these companies.

Some of the newer domestic enterprises went after the old-line companies head-on with innovative strategies aimed at producing traditional products in more competitive ways. The premier example of a successful such modern gun manufacturer is Sturm, Ruger & Company, Inc. Founded by William B. Ruger and Alex Sturm in 1949 to produce a .22 caliber semiautomatic target pistol, the company built its early business on manufacturing “western style revolvers”—handguns imitating the

classic design of the nineteenth-century Colt Peacemaker.⁴⁵ Sturm, Ruger & Company has since branched out into modern designs and long guns. It has grown to become one of America's most prolific producers of all types of firearms for the civilian market.

The gun industry operated free of government restraint throughout most of this period. The first federal firearms law was the War Revenue Act of 1919, which placed a tax on the manufacture of firearms and ammunition to help pay costs of World War I. The National Firearms Act of 1934 and the Federal Firearms Act of 1938 together made up the federal government's first attempt at regulating the industry, largely through a taxation system that required manufacturers, importers, and dealers to register with the Treasury Department, to pay a tax, and to obtain a license. The system was largely ineffective as anything other than a revenue-raising measure, however. The few limitations it imposed on actual commerce in firearms were easily evaded and poorly enforced.

The assassination of President John F. Kennedy in 1963, the murders of Robert Kennedy and the Reverend Martin Luther King Jr. in 1968, rising rates of violent crime, and an explosion of handguns impelled Congress to pass the first truly comprehensive federal firearms law, the Gun Control Act of 1968, which somewhat tightened federal licensing requirements. The 1968 law encouraged another change in the American gun market. For the first time, the nation restricted the import of so-called Saturday Night Specials—small, easily concealable handguns poorly made of lower-quality materials—by imposing certain size, design, and performance standards on imported foreign guns. The law did not, however, subject domestic manufacturers to any such standards. This different treatment had two long-term results: domestic companies sprang up to fill the Saturday Night Special gap and foreign manufacturers created domestic manufacturing subsidiaries to evade import restrictions and to get back into the lucrative American market.

Southern California became the center of the domestic manufacture of cheap handguns. The rise and deleterious nationwide impact of these companies, collectively known as the "Ring of Fire" companies, was thoroughly and definitively documented in a landmark study by Southern California trauma surgeon Dr. Garen Wintemute.⁴⁶ Wintemute concluded that, although the Ring of Fire guns were marketed primarily for

self-defense, their shoddy construction made them unreliable and unsuitable for personal protection. Yet, he found, the cheap Ring of Fire guns were disproportionately used in crime—3.4 times more likely to be involved in a crime than handguns from other major manufacturers.⁴⁷

More generally, however, the spawning of the Ring of Fire companies marked the blossoming of the seeds Samuel Colt planted and the beginning of a consistent trend in the modern postwar gun industry: the mass marketing of lethality and “fire power.”

Selling Lethality

All firearms are capable of killing, and indeed virtually all firearms are designed to do so. But not all firearms are capable of killing with equal efficiency. Specific design features affect lethality. Differences in ammunition capacity, caliber (bullet size), and concealability among firearms translate into greater or lesser likelihood that a firearm will be present in an encounter and, if it is, a greater capability to deliver lethal force in terms of the number of wounds and their seriousness. In short, design affects lethality.

The mix of firearm products sold in the U.S. civilian market has changed significantly over the last thirty years. Unlike many other consumer industries that grow along with population growth, the firearms industry in the United States has faced saturated, declining markets for at least the last twenty-five to thirty years.⁴⁸ The gun industry has used design change to stimulate its markets, and those changes have consistently been in the direction of greater lethality. This innovation was described in 1993 by Andrew W. Molchan, publisher and editor of *American Firearms Industry*: “Without new models that have major technical changes, you eventually exhaust your market. . . . This innovation has driven the handgun market.”⁴⁹

This deliberate enhancement of lethality contributes directly to the criminal use of firearms and to death and injury resulting from firearms use. On the other hand, the industry has not been equally innovative in designing or as eager to incorporate safety devices such as automatic load indicators, child-proof triggers, and magazine disconnects. The industry’s defenders argue that enhancing the lethality of firearms sim-

ply improves a tool whose purpose has always been deadly force. Responsibility for misuse of that force lies with the user, not with the industry, they maintain.

The Rise of Handguns

The most striking change in the U.S. civilian firearms market since the end of World War II has been the rise to dominance of the handgun. Long guns (rifles and shotguns) dominated the civilian market throughout the first half of the twentieth century. From 1899 through 1945, handguns constituted 24 percent of firearms available in that market. In 1946 handguns constituted 11 percent of domestic manufacture. Because the United States was then a net exporter of civilian firearms, handguns accounted for only 8 percent of firearms available for sale.⁵⁰ Beginning in the mid-1960s this changed. Handguns rose fairly rapidly to dominate the civilian market and, with the exception of a brief resurgence of long guns in the mid-1970s, have continued to do so without interruption since 1979. Handgun sales per adult are now roughly twice the level of forty years ago, consistently averaging about 40 percent of the overall market.⁵¹

Conversion to Semiautomatic Pistols from Revolvers

Another striking trend has been the emergence of semiautomatic pistols over revolvers in the U.S. civilian market. Many more rounds (eight to seventeen) can be fired from a semiautomatic pistol, with less effort, than from a revolver (five to six), and the empty pistol can be reloaded more quickly than the empty revolver. This is especially true of the more modern high-capacity pistol magazines, designed to hold as many as twenty rounds. As pistol production increased, revolver production plummeted in the early 1980s. In 1987, for the first time, domestic pistol production surpassed revolver production, and it now leads the handgun market by a wide margin.

Two forces have driven this market. The first was the emergence of companies at the low end of the market specializing in small, cheaply made, easily concealable pistols in lower calibers. The second was the emergence, initially at the higher end of the market, of new pistols in higher calibers combined with high-capacity magazines. *Guns & Ammo*,

the largest circulation gun enthusiast magazine, placed the market change among the “Top 10” gun trends of the 1980s.

No class of handgun ever received the torrent of attention and developmental effort as did the modern, high-capacity, double-action 9mm pistol—the so-called wondernine. In 1979, there were only a few models available in the American marketplace and they weren’t particularly popular. . . . Then somebody opened the floodgates, because in short order we had a couple dozen new and interesting pistols in this category.⁵²

Ultimately, the two ends of the market moved closer together. The cheaper gun makers increased the caliber of their guns, and many high-quality makers, aided by new developments in materials such as the emergence of plastics and stronger alloys, produced smaller and less expensive pistols.

Growth in Caliber and Diminution in Size

Another trend within the handgun market has been an increase in the manufacture of pistols in the upper range of commercial handgun calibers. Just as handgun caliber has been increasing, handgun size has been diminishing. New materials have made it possible to design smaller handguns in higher calibers that would have been impossible to make, or dangerous to the user if made, in earlier generations of handguns.⁵³ At the same time, the success of a drive by the National Rifle Association (NRA) to change state laws to permit the concealed carry of firearms created a new market for small handguns.⁵⁴ The combination of technology and law change resulted in the widespread marketing of subcompact handguns (also known as “pocket rockets,” mini-guns, and palm guns). The confluence of trends was summarized in 1997 by Bob Rogers, editor of *Shooting Sports Retailer*, a gun business magazine: “Firepower is increasing. So is the killing potential as guns shrink in size and concealability [*sic*].”⁵⁵

Emergence of Military-Style Weapons

A final phenomenon has been the appearance of two classes of military-style firearms: semiautomatic assault guns and sniper rifles. Historically, surplus military firearms have often found their way onto the

civilian market. Many of these have been suitable for such sporting uses as hunting. Semiautomatic assault weapons, however, are distinguished by their high ammunition capacity and by design features that facilitate rapid “spray” firing. Most semiautomatic assault weapons are slightly modified versions of guns designed for military use where it is desired to deliver a high rate of fire over a less than precise killing zone, a procedure often called “hosing down” an area.⁵⁶

Generic design features that make them ideal for rapidly laying down a wide field of fire include (1) high capacity magazines (capable of holding from twenty to more than one hundred rounds of ammunition) and (2) devices that make it easier to simply point (as opposed to carefully aim) the gun while rapidly pulling the trigger. These pointing devices include pistol grips—or magazines that function like pistol grips—on the fore end of the gun and barrel shrouds, which are ventilated tubes that surround the otherwise too-hot-to-hold barrel, providing an area that is cool enough to be directly grasped by the shooter even after scores of rounds have been fired. Taken together, these features make it possible for the shooter of the civilian assault gun to “hose down” a relatively wide area with a lethal spray of bullets and to do it quickly. The NRA tested one such gun, the Calico M-100 Rifle, in 1987 and reported that “the full 100 rounds were sent downrange in 14 seconds by one flicker-fingered tester.”⁵⁷

A more recent phenomenon has been the marketing of military sniper rifles. These are not merely off-the-rack hunting rifles with telescopic sights but “purpose-designed” military weapons fielded by armies in conflicts around the world. These include such pieces as the Barrett M82A1 .50 caliber sniper rifle, used by U.S. forces during the 1991 Gulf War to destroy Iraqi light-armored vehicles, missiles, and artillery pieces at very long range.⁵⁸

The Consequences of Deliberately Increased Lethality

These changes in the mix of firearms available in the civilian market have increased the lethality of armed encounters in the United States by enhancing three specific design factors identified as contributing to the likelihood of death or serious injury by firearm—availability

(largely a function of concealability and thus portability), capacity, and caliber.

The greater ammunition capacity of firearms affects the outcome of armed encounters by increasing the likelihood that a shot will take effect. Although most handgun shootings occur at close range, most bullets fired, even by trained law enforcement officers, miss their targets.⁵⁹ For example, FBI agents are reported to have fired at least seventy rounds at two assailants in a fierce 1986 firefight in Miami, but only eighteen rounds hit the criminals.⁶⁰ Therefore, the more rounds a gun can fire quickly, the more likely it is that a given shooting will result in multiple wounds.

There are at least two ways to demonstrate the effect of increased capacity and caliber. One is to compare the demonstrable medical consequences of one's being shot more times by bigger bullets. The other is to examine the data of actual shooting incidents and look for changes linked to the introduction of the types of firearms posited to be more lethal.

The pathology of multiple wounds from large bullets is well established and tracks common sense. The dynamics of wound ballistics involve a complex of variables. But all other things being equal, larger bullets cause greater wound damage—"Of the bullets which attain desired penetration depth, those of larger diameter are the most effective, crushing more tissue," wrote the authors of a comparative study of police ammunition.⁶¹ It should be noted that, although much of the writing about law enforcement and wound ballistics is addressed to the issue of "stopping power," that is, the ability to produce more or less immediate incapacitation, the issues of incapacitation and lethality are effectively equivalent in the case of handguns. That is, "[g]enerally, with handguns, to produce incapacitation, we've got to produce death."⁶² The merits of such increased "stopping power" for self-defensive purposes has indeed driven the industry's enthusiasm for designs incorporating bigger and more bullets.

It is unfortunate that for a variety of reasons—including significantly fierce political opposition from organized pro-gun groups—uniform national data on firearm injury is not available. There is simply no resource from which one can obtain such useful data as types of handguns, caliber, and number of rounds taking effect in shootings. Nevertheless, a national survey of anecdotal medical evidence and a more intensive study of shootings in Philadelphia establish not only that more

wounds increase the likelihood of death or serious injury in a given incident but that changes in firearm design have indeed driven an increase in the number of wounds in shooting incidents.⁶³

Similarly with respect to the introduction of military-style weapons, law enforcement officials have noted anecdotally for some time that criminals are taking up “heavier arms in the form of assault rifles” and that “the rifle types most often used to kill officers encompass the most common assault rifle calibers in the world.”⁶⁴ A recent study of FBI data by the Violence Policy Center found that at least 41 of the 211 law enforcement officers slain in the line of duty between January 1, 1998, and December 31, 2001—one in five—were killed with assault weapons.⁶⁵ This phenomenon is the consequence of the deliberate creation by the firearm industry of a civilian market for a class of weapons that simply did not exist before the mid-1980s.

Other Problem Areas

Defenders of the firearms industry often describe it as being heavily regulated, with no need for the discipline of the civil litigation to which other consumer product industries are subject. In fact, regulation of the industry at the federal level is largely a matter of pro forma licensing paperwork. There is no oversight of product design. This uniquely indulgent regulatory situation results from the structure of federal law, which exempts firearms and ammunition from the Consumer Product Safety Act and depends almost entirely on a system of licensing. Some responsibility also lies on the federal agency to which enforcement of that law is delegated—the Bureau of Alcohol, Tobacco, Firearms and Explosives (BATFE)—which has historically been far too lightly staffed to aggressively oversee its limited licensing mandate.

State regulation of firearms dealers varies wildly. Arizona has no statewide gun dealer licensing provisions and forbids local jurisdictions from regulating the sale, possession, or use of firearms. New Jersey, on the other hand, strictly controls who may have a state gun dealer’s license. In any event, a minority of states impose their own gun licensing requirements, and most of these suffer from two basic flaws that make them easy to evade: either they do not adequately define what constitutes

dealing in firearms (and thus the necessity to obtain a dealer's license), or they are limited to certain types of guns, such as handguns.⁶⁶

Weakness in Federal Oversight of Licensed Dealers

The federal regulatory system enacted in the Gun Control Act of 1968 is primarily intended to restrict the interstate sale of firearms to gun dealers and thereby to prevent individuals without licenses from running over state lines to buy guns. Federally licensed dealers—including so-called kitchen table dealers—may have firearms shipped to them across state lines (e.g., from wholesalers, manufacturers, or other licensed dealers). They may buy and sell both new and used guns to and from other licensed dealers regardless of the latter's location, and they may buy and sell to or from residents of the state in which they are located. A licensed dealer also may sell long guns to a nonresident, so long as the sale is legal under the laws both of the dealer's state and of the nonresident's state. However, handguns may be sold across state lines only from one licensed dealer to another. In other words, a resident of Alabama may not legally buy a handgun in Georgia unless she has a Federal Firearms License.

In theory, the BATFE monitors the conduct of licensed dealers through a program of on-site inspection. However, BATFE has never had the staff to inspect more than a small percentage of retail licensees in any given year. In 1969, the first year of operations under the 1968 Gun Control Act, the agency inspected 54.7 percent of the new licensees created under the act. Thereafter, the agency's inspection activity declined dramatically, to an all-time low of 1.1 percent in 1983. In 1990, it conducted 8,471 compliance inspections, representing 3.1 percent of licensees. The number rose during the agency's aggressive scrutiny of retail dealers in the mid-1990s to a peak of 22,300 compliance inspections in 1993, or 7.9 percent of licensees, but fell back to 5,043, or 4.8 percent of licensees, in 1998.⁶⁷ At a 5 percent rate of inspection visits, it would take the agency twenty years to get around to inspecting each licensee once. In the real world, BATFE's resources are spread thin and most of its attention in the area of firearms goes to enforcing federal criminal laws relating to guns, not dealer compliance. The result is that the

nation's fast-food outlets probably get more regular government attention from health, fire, and weights and measures personnel than the average firearms dealer gets from BATFE.

The problem of thin oversight is compounded by the historically weak action BATFE has taken against dealers who violate regulations—in the years 1975–99, BATFE revoked a total of only 373 dealers licenses.⁶⁸ The combination of cursory oversight and weak enforcement was exemplified in the case of a Tacoma, Washington, gun dealer whose store was allegedly the source of the Bushmaster assault rifle used by two snipers who terrorized Washington, D.C., in the fall of 2002.⁶⁹ The rifle was traced back to the store, but there were no records of its sale, and the dealer had not reported the gun stolen, as federal regulations required him to do.⁷⁰ In spite of the fact that at least four previous inspections since 1995 had uncovered numerous record-keeping violations and as many as 160 missing firearms that the store could not account for, no action was taken to revoke the dealer's license until after the Beltway shootings.⁷¹

Rogue Dealers and Straw Purchases

Given the power of the Federal Firearms License and BATFE's weak oversight of licensees, it is no wonder that, according to the testimony of a former industry official, "[t]he diversion of firearms to the illegal black market occurs principally at the distributor/dealer level."⁷² Leakage from legitimate channels of commerce to illegal gun trafficking occurs at the retail or distributor level through several mechanisms, including theft, so-called straw purchases—frequently by organized gun traffickers—and corrupt gun dealers who knowingly use their licenses to directly or indirectly supply criminals with firearms.⁷³

Expedient, legal access to firearms makes the corrupt dealer a "leveraged" force in criminal trafficking—an unlicensed dealer acting in concert with a corrupt licensee, for example, can obtain and divert to illicit channels many more weapons than he could if he were acting alone.⁷⁴ A BATFE study of gun trafficking reported that, although licensed dealers were involved in the smallest proportion of gun trafficking investigations, they were associated with the largest total of illegally diverted firearms.⁷⁵

Straw purchasers are individuals who buy firearms on behalf of other persons, such as convicted felons, who are legally barred from possessing firearms. Small-scale straw purchasers and criminal straw-purchasing rings made up nearly half of the investigations in the BATFE study.⁷⁶

The second largest source of illegally diverted firearms in the BATFE study was gun shows, fairs at which private citizens and licensed dealers alike sell firearms and related paraphernalia. According to BATFE, 4,442 such events were advertised in calendar year 1998.⁷⁷ Most gun transfers between private individuals are controlled only by state and local law. In most states, this means no control at all, since most states do not regulate private transactions. In theory, a private person could make so many “private” gun sales that he or she would be “engaged in the business” of selling guns under federal law and would thus be required to secure a federal firearms dealers license. Yet, federal law so generously defines the right of individuals to sell guns out of their own “collections” that in practice many such unlicensed hobbyists who sell at gun shows are indistinguishable from licensed firearms dealers. Brady Act background checks are not required for private transactions at gun shows, and most states also do not require background checks for such transfers. This has led to calls for additional legislation to “close the gun show loophole” by extending the Brady Act background check to sales at such shows.

Another problem area is the illicit traffic in firearms from states and localities with relatively lax gun laws or enforcement to states and localities with stricter laws.

Conclusion

Although often romanticized, fiercely defended on ideological grounds, and immune from common regulatory oversight, the modern American gun industry is at bottom simply a business, an industry that mass-produces a consumer product—firearms. I have attempted to demonstrate in this chapter that, faced with similar pressures resulting from production capacity exceeding natural demand, the modern gun industry mass markets firearms similar to the way the automotive industry mass markets new cars. I also have shown that the innovation the gun industry has

relied on to generate demand in its markets has resulted in an overall increase in the lethality of its products. This results from specific design features the industry has incorporated into its products. These features, and the techniques that the industry uses to promote them, bear a demonstrably direct relationship to increased death and serious injury from firearms.