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**Opinions of 47
Auto Theft
Investigators
Regarding
Automobile
Component Parts
Anti-Theft Labels**

**Report to the
National Institute of
Justice**

December 30, 1996

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EXECUTIVE SUMMARY

Chapter One: Introduction and Background

The nature of car theft changed significantly beginning in the 1970s from joyriding to theft for profit, in large part due to a proliferation of so-called "chop shops" that engage in the volume sale of stolen car parts to body shops, to auto repair shops, and directly to car owners. Because auto theft investigators were often unable to identify which vehicles the stolen parts came from or whether the parts were stolen at all, the Federal Government enacted the Motor Vehicle Theft Law Enforcement Act of 1984 that required automobile manufacturers, based on standards established by the U.S. Department of Transportation (DOT), to mark 14 component parts of selected high-theft automobile lines with identifying numbers. The Federal Anti-Car Theft Act of 1992 required manufacturers to mark an additional 50 percent of their remaining lines. Both statutes permitted the DOT to grant a limited number of exemptions for new automobile lines equipped with selected anti-theft devices.

The 1992 legislation also required the U.S. Attorney General to conduct two assessments of the DOT rules:

- (1) conduct by 1997 an initial evaluation of the effectiveness of the parts marking and, if found to be effective in inhibiting chop shop operations and deterring motor vehicle theft, extend parts marking to all remaining vehicle lines by December 1997; and,
- (2) conduct by 1999 a long-range review of (a) whether parts marking has been effective in substantially inhibiting the operation of chop shops and motor vehicle theft and (b) whether the anti-theft devices for which the DOT has granted exemptions are an effective substitute for parts marking in substantially inhibiting motor vehicle theft.

Pursuant to the first of these two research requirements, the U.S. Department of Justice's National Institute of Justice contracted with Abt Associates to conduct a two-part study of the impact of the legislation.

The first part of the study, to be reported in a separate document, will use the DOT's national auto theft data to examine auto theft rates across time and across States. The second

part of the study, reported in the present document, examines the experiences and opinions of auto theft investigators regarding the effectiveness of the component parts anti-theft labels.

The information examined in the present report is based on telephone conversations with auto theft investigators from 47 jurisdictions, including 31 of the 32 largest cities in the country (plus Miami), six smaller municipalities, and nine State agencies. While the jurisdictions do not represent a random sample of law enforcement agencies across the country, they do include the majority of jurisdictions with the highest auto theft rates in the Nation. Because five of the six smaller municipalities, and one rural State (North Dakota), make no use of labels (or, in one case, little use), information from these jurisdictions has been presented separately from the data from the other 40 jurisdictions.

Chapter Two: Do Anti-Theft Labels Help Prevent Chop Shop Operations and Deter Auto Theft?

Nearly three-quarters of the 40 big city and State auto theft investigators contacted reported that anti-theft labels are useful in helping to arrest chop shop owners and individuals who steal or traffic in stolen vehicles and parts. Nearly two-thirds of the investigators reported that labels also help them to prosecute chop shop operators and other automobile and parts thieves. Investigators reported that the most serious obstacle to making more effective use of the labels is that they are easy to remove and, once removed, it is impossible to prove that the parts are stolen because the owner cannot be traced. Investigators were about evenly divided regarding whether anti-theft labels deter professionals or amateurs from stealing or stripping cars. Investigators from the six smaller jurisdictions and one rural State report little or no use of anti-theft labels because joyriding, and a resulting high recovery rate of stolen vehicles, is their principal form of auto theft.

Chapter Three: Can Anti-Theft Devices Substitute for Parts Marking?

The Federal Anti-Car Theft Act of 1992 requires the Attorney General to retain the manufacturers' parts marking exemptions for cars equipped with anti-theft devices if it can be shown that the devices are an effective substitute for parts marking in substantially preventing

automobile theft. While this assessment is a requirement of the 1999 evaluation, not the 1997 evaluation, this report nevertheless provides auto theft investigators' opinions about whether the devices can substitute effectively for parts marking. A large majority of investigators reported that audible alarms, steering wheel "clubs," kill switches, and "smart" keys all help deter auto theft but that each has drawbacks that prevent it from substituting effectively for parts marking. The small minority of investigators who had experience with recovery systems reported that the systems are effective in recovering stolen cars but that their use to date is limited by lack of transmission equipment and cost to the consumer.

Chapter Four: What Should Happen to Parts Marking Legislation?

All but one investigator felt that the parts marking legislation should be extended to all automobile lines and to all types of noncommercial vehicles, especially pickup trucks. While every investigator reported that the parts that manufacturers are currently required to label are the parts that are stolen most frequently, all but six investigators recommended that additional parts be required to have labels, citing most often seats and airbags. Just over one-third of the investigators recommended that manufacturers be required to stamp vehicle identification numbers (VINs) on the component parts rather than use labels.

Chapter Five: What Resources Are Available to Investigators Using Anti-Theft Labels?

Investigators reported making use of three principal types of resources to assist them in making effective use of component parts labels: training, technical assistance, and equipment. Investigators reported they rely primarily on one or both of two organizations for training related to anti-theft labels: the National Insurance Crime Bureau (NICB) and the International Association of Auto Theft Investigators (IAATI). The NICB also assists jurisdictions with auto theft investigations through its computerized database and field agents, many of whom go on site to help local investigators. Local auto theft task forces assist with investigations in nine jurisdictions contacted. Nearly half the jurisdictions use ultraviolet lights to detect counterfeit labels or the footprints that most anti-theft labels are designed to leave if removed.

Chapter Six: Conclusion

The study's findings suggest that component parts anti-theft labels assist most big city and State auto theft investigators to arrest car and parts thieves and to prosecute them. Investigators were nearly evenly split about the possible deterrent effects of the labels on auto theft, although some reported that the labels deter some chop shop operators. Anti-theft devices are not considered sufficiently effective to warrant labeling exemptions for cars that manufacturers equip with the devices. Almost all investigators would like the parts marking legislation expanded to include not only all remaining car lines but also noncommercial vehicles and additional parts. Investigators suggested that parts marking might be more effective if auto theft investigators and patrol officers were trained more systematically and frequently in how to investigate label removal and tampering, if legislation in every State made tampering with or removing labels a felony, and if investigators had access to detection equipment, such as ultraviolet lights.

Chapter One

INTRODUCTION AND BACKGROUND

Key Points

- Beginning in the early 1970s, car theft changed from largely joyriding to predominantly theft for profit. The proliferation of "chop shops" played a significant role in this change. Once a part had been removed from a car, auto theft investigators often had no means of identifying which vehicle the stolen part came from or whether the part was even stolen.
- As a result of the increase in theft for profit, the Federal Government enacted the Motor Vehicle Theft Law Enforcement Act of 1984 and the Federal Anti-Car Theft Act of 1992, which directed the U.S. Department of Transportation (DOT) to develop a standard mandating automobile manufacturers to place an identifying number on the major component parts of selected vehicle lines. Both statutes allowed manufacturers to petition the DOT to exempt a limited number of automobile lines equipped with certain anti-theft devices.
- The 1992 legislation requires manufacturers to mark all remaining vehicle lines by December 1997 unless the Attorney General determines that further marking will not substantially inhibit chop shop operations and motor vehicle thefts. As a result, the National Institute of Justice, the Department of Justice's research arm, contracted with Abt Associates to conduct a two-part study of the impact of the legislation on automobile theft.
- The first part of the study, to be reported under separate cover, will examine DOT national auto theft data using a cross-sectional time-series design. The second part of the study, reported in this document, examines the experiences and opinions of 47 auto theft investigators regarding the effectiveness of anti-theft labels. The 47 investigators represent 31 of the 32 largest cities in the country (plus Miami), six smaller municipalities, and nine State agencies.

Rationale for Parts Marking

Automobile theft is a major problem in the United States. Nearly 1.5 million motor vehicles were reported stolen in 1995, representing one out of every 139 cars in the country (FBI, 1996, p. 50). Theft of component parts from vehicles is an even more common problem, outnumbering vehicle theft five to one (Harris and Clarke, 1992).

In the 1950s and 1960s, most car theft consisted of joyriding—youngsters stealing cars, driving them for a short period of time, and then abandoning them, resulting in very high vehicle recovery rates. Auto theft investigators contacted for this study reported that joyriding is still the predominant form of car “theft” in smaller and rural jurisdictions. However, beginning in the 1970s, substantial numbers of thieves in larger jurisdictions started stealing cars for profit, resulting in fewer recovered cars and more parts missing from those vehicles that were recovered. Part of the increase in car theft for profit was due to a proliferation of so-called “chop shops” selling stolen parts either directly to consumers in need of replacement parts or to end users—body shops, automobile dealerships, and auto repair shops—for resale to customers. (See appendix A, “Glossary,” for definitions of chop shops and other terms used in this report.)

Thieves began or increased their use of other schemes, as well:

- Thieves steal, strip, and abandon a car, while the innocent owner reports it as stolen. The police eventually recover the car and cancel the theft record. The thieves purchase the frame at an insurance or police auction, reattach the parts they stole from it, and then sell the vehicle, which is no longer listed as stolen.
- Owners strip their own car, removing enough parts for their insurance company to declare the vehicle a total loss, and then file a claim with and receive reimbursement from the company. They may then buy back the frame themselves at an insurance company auction, put the parts back on the car, and either sell or make normal use of the vehicle.
- Thieves buy a salvaged car for its title and Vehicle Identification Number (VIN). They then steal the same model car, place the VIN from the salvaged car on the intact stolen car, and sell it to an innocent buyer.

- Thieves openly ship stolen cars out of the country with stolen or counterfeit VINs for resale abroad. Thieves also crate stolen cars for export and label the crates as containing other goods.
- Thieves legitimately ship cars overseas but arrange either to have the VINs sent back to the United States for reuse on counterfeit public VIN labels or to have the actual VIN tag sent back for reuse on stolen cars. These "born-again cars" are often not identifiable as stolen.

Figure 1-1, provided by the Portland (Oregon) Police Department's Auto Theft Division, illustrates the chain of events in two types of auto theft operations; figure 1-2, provided by the Fort Lauderdale (Florida) Auto Theft Unit, illustrates how chop shops process stolen parts and vehicles.

The Federal Parts Marking Legislation

Auto theft investigators, in attempting to cope with the new types of theft, often had no means of identifying which vehicles the stolen parts came from, whether the parts were stolen at all, or whether a VIN belonged to the car on which it was found. As a result, in 1984 the Federal Government enacted the Motor Vehicle Theft Law Enforcement Act of 1984 (chapter 331 49 §33102). The legislation directed the U.S. Department of Transportation (DOT) to prescribe a vehicle theft prevention standard that mandated automobile manufacturers to inscribe or affix an identifying number or symbol onto 14 of the major parts¹ of vehicle lines determined by the DOT to be of high theft risk. The legislation built on the Highway Safety Act of 1966, which required manufacturers to install public (i.e., easily seen) VINs on all automobiles by 1969. (See the box "Other Types of Automobile Markings.") In response to the act, the DOT's National Highway Traffic Safety Administration (NHTSA) promulgated a standard (50 FR 43168; October 25, 1985) that required manufacturers to mark the 14 parts on specified high-theft automobiles. These lines constituted one-third of their total automobile lines.²

¹The act requires manufacturers to label the following parts: engine; transmission; both front doors; both rear doors; hood; both bumpers; both front fenders; deck lid, tailgate, hatchback, or sliding or cargo door(s); and both rear quarter panels. An amendment to the 1992 legislation also required labels on the side assembly of multipurpose vehicles and on the pickup box, cargo box, or both of light duty trucks.

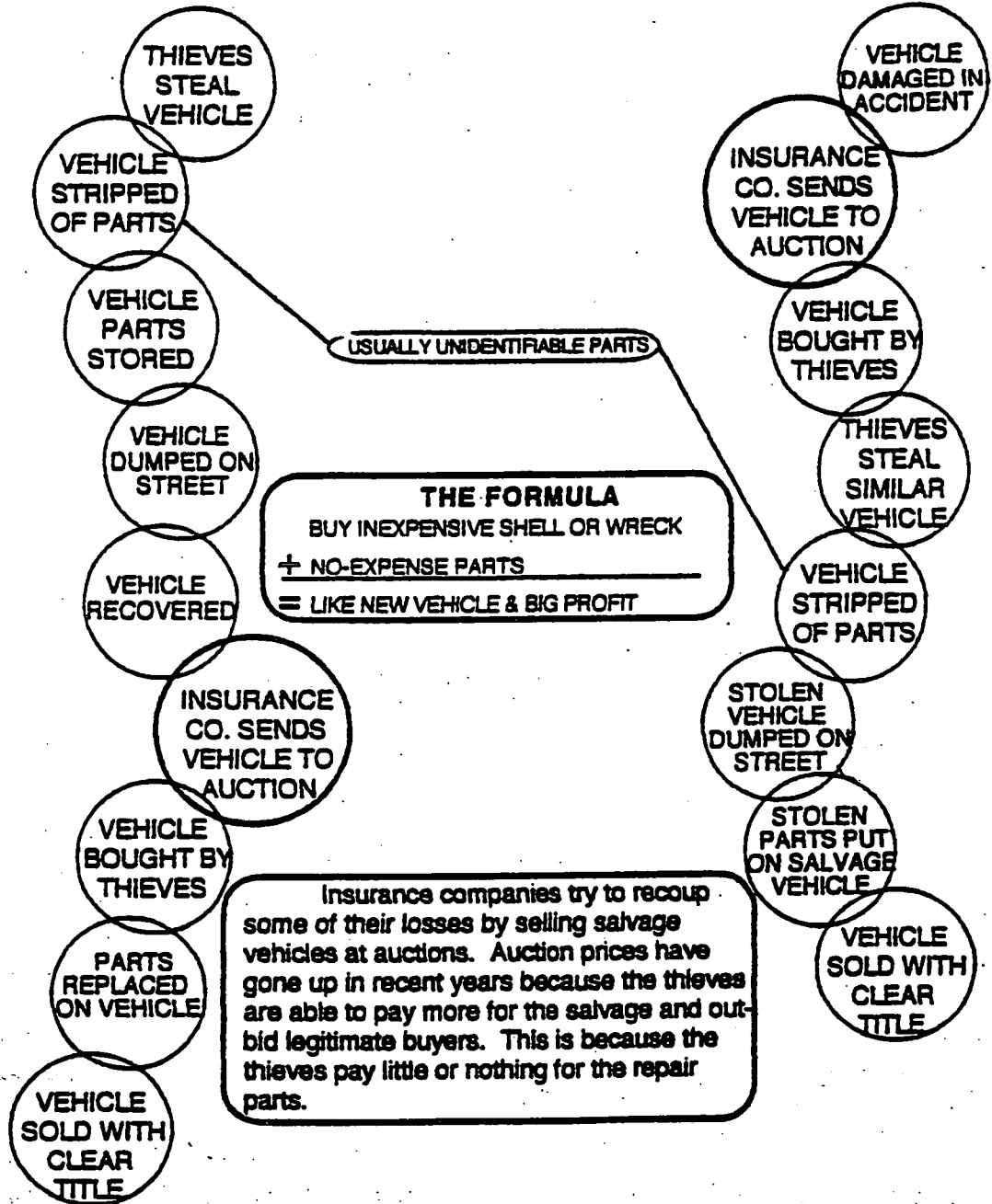
²Two automobile manufacturers, also responding to the changing nature of automobile theft, experimented briefly in the 1970s and early 1980s with labeling six component parts with VINs on two of their automobile lines.

Figure 1-1

CHAINS OF VEHICLE THEFT

STEAL & BUY

BUY & STEAL

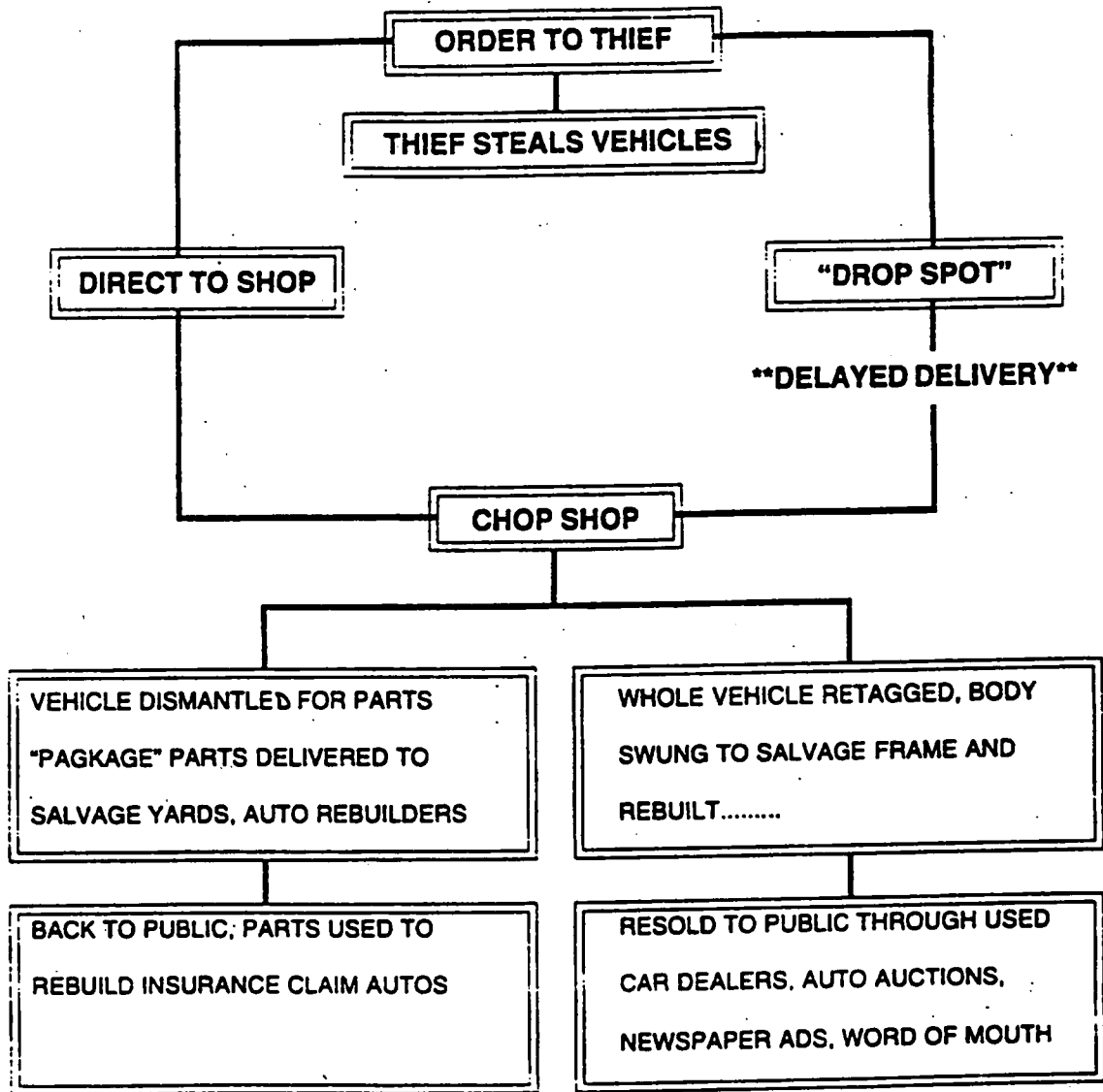


Graphic provided by the Portland (Oregon) Police Department's Auto Theft Division.

Figure 1-2

AUTO THEFT FLOW

Theft order originates in a salvage yard, through an auto rebuilder or thief, a retagger or stripper. Order is given for a certain make, color and piece of equipment.



Graphic provided by the Fort Lauderdale (Florida) Police Department's Auto Theft Unit.

Other Types of Automobile Markings

The markings on component parts mandated by the Motor Vehicle Theft Law Enforcement Act of 1984 are not the only markings found on automobiles. Below is a partial list of additional markings that automobiles may have.

- **Federal Safety Standard Label** ("Nader" sticker). Required by the Government in 1970, this sticker includes the VIN and verifies that the vehicle conforms to all Federal laws. The Federal label is found in the driver's door area of American cars but may be located on the rear or passenger door of some foreign vehicles.
- **Public VIN Label** ("P-VIN"). Introduced by manufacturers in 1968, this label is visible in the windshield area or driver's side window. Manufacturers introduced bar codes on VIN plates in 1990.
- **Confidential Numbers** (C-VINs, also called hidden numbers or secondary markings). Most manufacturers, at their own discretion, stamp a VIN on one or more not easily seen locations, typically on the frame in American vehicles and the firewall on foreign cars. Before 1989, manufacturers stamped the VIN on the vehicle, but in 1989 they began switching to pin stamping—making tiny dot-like indentations in the metal. The confidential numbers on American cars are usually a "derivative" of the entire VIN—that is, they repeat only some of the VIN's 17 characters. Foreign cars use a different set of characters, but the characters can be cross-referenced with the VINs. Manufacturers vary the location of their confidential numbers from year to year, plant to plant, and model to model.
- **Service Parts Identification Labels**. Since 1984, General Motors has been placing this label on its automobiles and vans for inventory purposes. In addition to the entire VIN, the label includes other information, such as the color of the vehicle.

The statute required manufacturers to mark replacement parts with certain symbols and the letter "R" to distinguish them from original parts. The legislation permitted the DOT, upon petition by a manufacturer, to exempt a limited number of new high-theft lines of passenger motor vehicles equipped with anti-theft devices that the department decided were likely to be as effective in reducing and deterring theft as compliance with the standard.

Manufacturers have chosen to use adhesive labels for the markings. However, if removed, the labels are designed to leave a trace, commonly called a "footprint," on the surface where it was originally affixed. When the labels on older model cars are pulled off, some adhesive remains indicating a label had been in place. However, thieves can remove the adhesive. Labels on some recent model vehicles have material that migrates into the paint. When thieves remove these labels, investigators need an ultraviolet (or "black") light to detect the footprint.

The component parts anti-theft labels³ are designed to make it possible to trace automobile parts to the original vehicle in order to prove that they or the cars have been stolen. In addition, since the Federal Government and many States make it a criminal offense to remove or tamper with a VIN label, law enforcement investigators may seize and confiscate parts whose anti-theft labels are missing or have been tampered with. In some States, officers may also arrest individuals in possession of the parts or cars. Most investigators consider missing labels, or labels that have been tampered with, a "red flag," indicating that the part or vehicle may have been stolen and therefore suggesting the need for further investigation. (See chapter 2, "Do Anti-Theft Labels Help . . . ?")

In 1992, Congress enacted the Federal Anti-Car Theft Act, directing the DOT to require manufacturers to mark an additional 50 percent of their remaining automobile lines by December 1994 regardless of the vehicles' theft rate. In combination with NHTSA's standard pursuant to the 1984 statute, which required the marking of one-third of the manufacturers' automobile lines, the new legislation had the effect of requiring manufacturers to label a total of two-thirds of their automobile lines. However, the 1992 act allowed the DOT to continue to grant a limited number of exemptions for new automobile lines equipped with effective anti-theft devices—two vehicle lines per year through 1996 and one car line from 1997 to 2000. The new legislation also prohibited any standard that would require manufacturers to spend more than \$15 (in 1984 dollars) to mark each vehicle.

³Different law enforcement agencies—and even different police officers within the same agency—use different terms to refer to component parts markings. Some of the terms include Mylar labels, NHTSA labels, DOT labels, anti-theft labels, VIN labels, high-theft line labels, and auto tails. Investigators may refer to the markings as stickers, tabs, strips, or labels. For purposes of consistency, this report always refers to them as (component parts) anti-theft labels.

The Anti-Car Theft Act of 1992 further required the Attorney General to conduct two assessments of the DOT's rule making in response to the legislation:

- (1) conduct by 1997 an initial assessment of the effectiveness of the parts marking and, if found to be effective in inhibiting chop shop operations and deterring motor vehicle theft, extend parts marking to all remaining vehicle lines by December 1997; and,
- (2) conduct by 1999 a long-range review of (a) whether parts marking has been effective in substantially inhibiting the operation of chop shops and motor vehicle theft and (b) whether the anti-theft devices for which the DOT has granted exemptions are an effective substitute for parts marking in substantially inhibiting motor vehicle theft. If the Attorney General finds that the application of the standard has not been effective, the DOT is required to terminate the standard within 180 days. If the Attorney General finds that the anti-theft devices are an effective substitute for parts marking, the DOT must continue to grant exemptions.

In response to the legislation's short-term 1997 research mandate, the U.S. Department of Justice, in a competitive procurement, awarded a grant to Abt Associates Inc. to conduct a study to determine whether anti-theft labels have substantially reduced auto theft so that the Attorney General could make an informed recommendation to Congress regarding the extension of parts marking to the remaining automobile lines. Subsequently, the U.S. Department of Justice's National Institute of Justice (NIJ) and DOT's NHTSA agreed to coordinate their joint evaluation responsibilities. The National Institute of Justice asked Abt Associates to survey law enforcement agencies and provide the findings to NHTSA, while NHTSA agreed to provide Abt Associates with statistical data assembled by another contractor.

Based on these two sources of information, Abt Associates is conducting a two-part evaluation of the effectiveness of the component parts anti-theft labels in deterring auto theft and inhibiting chop shop operations. One part of the evaluation, to be submitted to the Department of Justice on April 30, 1997, will examine NHTSA's national auto theft data using a cross-sectional time-series design that examines auto theft rates across time and across States based on data from the FBI's National Crime Information Center (NCIC) and the DOT's insurer database. The second part of the evaluation—reported in this document—examines the experiences and opinions of auto theft investigators regarding the effectiveness of component parts anti-theft labels.

Methodology

A previous study conducted for NHTSA (Harris and Clarke, 1991) using 1987 data concluded that anti-theft labels were not effective in reducing theft. However, law enforcement officers reported that the standard was helpful in identifying stolen parts and vehicles. The officers also recommended that the legislation not only be extended but also strengthened to require the stamping or etching of VINs on component parts rather than allowing the use of labels which, they reported, could be easily removed. In a second study, the Highway Loss Data Institute, using insurance industry data, found substantially reduced rates for marked vehicles compared to unmarked vehicles, especially in large metropolitan areas (HLDI, 1989). Finally, a 1990 NHTSA evaluation based on NCIC data was unable to draw significant conclusions regarding the impact of the labels on theft (NHTSA, 1990). The present study builds on the NHTSA study by examining many of the same issues addressed in that survey and including many of the same jurisdictions. However, the NHTSA and other studies cited above were all conducted shortly after the DOT regulations went into effect. The present study has the advantage of several additional years for the regulations to have had an impact or an increased impact.

The information presented in the present report is based on telephone conversations with auto theft investigators from 47 jurisdictions nationwide, including 31 of the 32 largest cities in the country (plus Miami), six smaller municipalities, and nine State agencies. (See the box, "Jurisdictions Contacted.") Typically, one investigator was contacted in each jurisdiction, but in a few instances two or more investigators from the same jurisdiction participated. We identified investigators by asking the agencies' auto theft unit (or, in some cases, the agency's administrative assistant or public affairs division) to identify the investigator most familiar with component parts anti-theft labels. In some cases, the person interviewed was the auto theft unit chief; in other cases, the investigator was a line officer within the unit or (in smaller jurisdictions) within the investigative bureau. Almost all the investigators were at least sergeants; many were lieutenants. Nine of the investigators were members of a local auto theft task force.

Jurisdictions Contacted

The following 47 jurisdictions were contacted for the study.

32 Departments in Large Cities (population 400,000 and above)

Austin	Houston	Oklahoma City
Baltimore	Indianapolis	Philadelphia
Boston	Jacksonville	Phoenix
Chicago	Kansas City	Portland*
Cleveland	Long Beach	San Antonio
Columbus	Los Angeles	San Diego*
Dallas	Memphis	San Francisco*
Denver	Miami* (378,720)	San Jose
Detroit*	Milwaukee	Seattle
El Paso*	Nashville	Washington, DC
Fort Worth	New York	

9 State Departments of Public Safety/Highway Safety/State Police

California*	Colorado	North Dakota
Florida	Massachusetts	New York
Iowa	Michigan	Texas

6 Smaller Municipalities

Boise, Idaho	Sarasota, Florida	Syracuse, New York
Minot, North Dakota	Stockton, California	Victoria, Texas

Appendix B shows the population, number of motor vehicle theft offenses, and per capita theft rate for each of the 38 municipalities contacted.

* Investigator was a member of an area auto theft task force.

Investigators were asked whether and how they make use of anti-theft labels, whether they felt labels are useful in reducing auto theft and inhibiting chop shop operations, and whether they found anti-theft devices to be effective in deterring automobile theft.

The jurisdictions examined do not represent a random sample of law enforcement agencies across the country. The box "Site Selection Criteria" discusses how the jurisdictions were selected. Except as noted, the six smaller municipalities and one rural State were excluded

from the analysis because, with one exception, labels were irrelevant to their auto theft investigation activities.

Site Selection Criteria

We surveyed police departments in 31 of the 32 largest municipalities in the United States. (Investigators in New Orleans were unavailable.) We sampled primarily agencies in large cities because the auto theft problem is the most severe in large jurisdictions (FBI, 1996; HLDI, 1994). * Although the forty-fourth largest city in the nation, Miami was included in the study because it had been included in an earlier U.S. Department of Transportation study of high-theft labels.

We also surveyed nine State public safety, highway safety, or department of motor vehicle agencies, since they often play a major role in investigating car theft. We selected States from diverse parts of the country (including coastal and interior States, and States on the Mexican and Canadian borders) and States with different size populations.

Finally, we surveyed six smaller municipalities to learn whether smaller jurisdictions find anti-theft labels effective. The smaller municipalities represented include diversity in terms of location and size.

*Theft losses for vehicles normally garaged in the 30 largest metropolitan areas, accounting for one-half of the U.S. population, are considerably higher than in the rest of the United States. In the 30 areas, theft claims are almost twice as frequent and the average claim sizes are more than 40 percent larger than in the rest of the nation. (HLDI, 1994)

Contents of the Report

The following chapter examines whether auto theft investigators believe that component parts anti-theft labels help them to prevent chop shop operations and deter auto theft. Chapter three presents the investigators' opinions about the effectiveness of anti-theft devices and stolen car recovery systems, while chapter four summarizes the investigators' opinions about whether the legislation mandating component parts marking should be extended to all automobile lines. Resources that investigators report they have available for assistance in making maximum use of labels to investigate auto theft are presented in chapter five. A final chapter draws conclusions from the preceding information.



Chapter Two

DO ANTI-THEFT LABELS HELP PREVENT CHOP SHOP OPERATIONS AND DETER AUTO THEFT?

Key Points

Three-quarters of the auto theft investigators in the 40 big city jurisdictions and States contacted for this study reported that component parts anti-theft labels are useful in helping to arrest chop shop owners, organized theft rings, and individuals who steal or traffic in stolen parts and vehicles. Investigators offered four reasons the labels are helpful.

- When vehicles are missing their public and confidential VINs, investigators can still trace their owners, prove they were stolen, and make arrests when they find—as they frequently do—at least one component part with an intact anti-theft label.
- In many jurisdictions, when investigators discover anti-theft labels that do not match public or confidential VINs on a vehicle, or discover damaged or missing labels, they can seize the parts or vehicles and auction or destroy them.
- Most jurisdictions treat missing or damaged labels as a "red flag" indicating the need for further investigation; without this flag, they would have no reason to suspect the vehicle or parts might have been stolen.
- Investigators in jurisdictions that require inspections of restored cars before the vehicles can be retitled report that the labels help inspectors to detect and seize cars that have been reassembled with stolen parts.

Nearly two-thirds of the investigators reported that labels help them to prosecute chop shop operators and other automobile and parts thieves.

(continued)

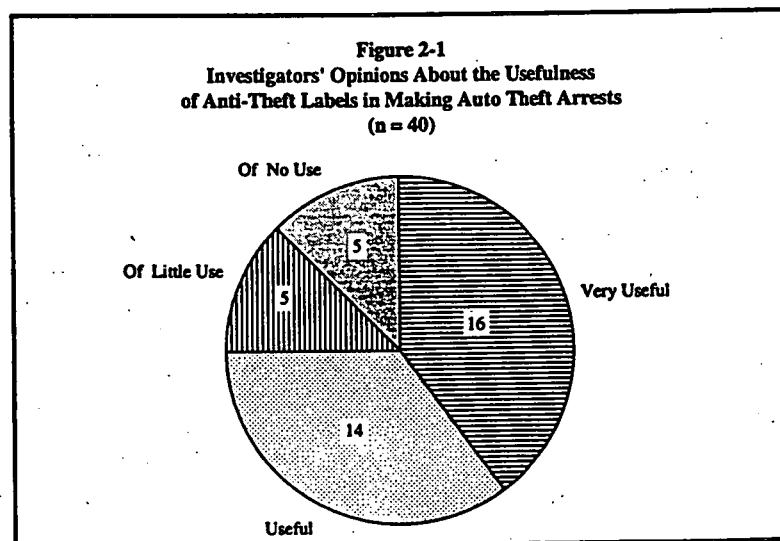
Key Points (continued)

- Investigators reported that the most serious obstacle to making effective use, or more effective use, of labels is that they are easy to remove. Once removed, it is difficult, according to many investigators, to prove the parts are stolen because the owner cannot be traced.
- About half the investigators believe that anti-theft labels do not deter professionals or amateurs from stealing or stripping cars because nothing will deter professional thieves and because joyriders are not aware that the labels exist. Among the investigators who believe labels have a deterrent effect, most reported the effect was most pronounced on chop shop operators.

This chapter discusses whether auto theft investigators find anti-theft labels helpful in arresting and prosecuting automobile thieves, in particular chop shop owners, and deterring automobile theft.

Effects on Arrests and Prosecution

Three-quarters of the investigators (30 out of 40) reported that anti-theft labels are useful in helping to arrest chop shop owners and organized rings and individuals who steal or traffic in stolen parts and vehicles. (See figure 2-1.)



Over half of these 30 investigators said the labels are *very* useful, offering testimonials such as the following:

- “We make an incredible number of identifications with Ford Mustang labels that have been removed or painted over. We made 25 arrests using labels in the past 24 months.” (San Francisco)
- “They help a lot. We have five cars in the warehouse right now that were identified with the labels.” (San Jose)
- “We made 20 arrests using labels in just the past 12 months.” (Denver)
- “Parts marking has aided in the identification of cars in a high percentage of our arrests—we use them almost daily.” (Los Angeles)
- “Labels help most definitely—they’re what make the case.” (San Antonio)

Investigators offered four explanations for why the labels contribute to arrests:

- (1) Labels make it possible to detect many stolen parts among end users—salvage yards, body shops, and repair shops—that investigators could otherwise never identify as stolen.
 - “We go into salvage yards with a search warrant, use ultraviolet scanners on all parts, and find many parts that are stolen.” (New York City)
 - “Labels are absolutely crucial to identifying stolen parts in chop shops.” (Chicago)
 - “Chop shops cut cars up and take away the motors with confidential VINs, leaving only the parts, so the *only* way we have to identify these cars is with the anti-theft labels.” (Metro-Dade [Miami])
- (2) When they find parts with missing, damaged, or counterfeit labels, or with labels that do not match other VINs on the same car, investigators in many jurisdictions have the authority to seize the parts (and cars) for further investigation and then either turn them over to the insurance company or auction or destroy them.
- (3) Many jurisdictions reported that, even if they cannot seize parts with missing or tampered labels, or parts with labels that do not match other VINs, the findings suggest that something is amiss. As a result, they investigate the matter further, hoping to prove by other means whether the parts or vehicles have been stolen.

Without the labels serving as "red flags," they would have no reason to suspect the vehicles or parts might have been stolen.

- (4) Laws in several States require that the department of motor vehicles or a State or local law enforcement agency inspect restored salvage cars before retitling them. Inspectors often discover that these cars, or some of their parts, have been stolen because the component parts lack labels or because the VINs on the labels do not match the public or confidential VINs. According to a Massachusetts investigator, under the Massachusetts Salvage Title Law of 1991, restored vehicles have to have matching numbers on the parts and show who did the repair work before the Registry of Motor Vehicles allows owners to put them back on the road. Often the labels from stolen parts have been removed, and the owners are charged with possession of stolen property.

The other 10 jurisdictions reported that the labels are of very little or no help in making arrests for reasons discussed in the following section on "Obstacles to Effective Use of Labels."

Case Histories of How Anti-Theft Labels Lead to Arrests and Prosecution

Auto theft investigators offered numerous case histories of how anti-theft labels have helped them to identify stolen parts and cars, leading to arrests and prosecutions. The most common story investigators told is of chop shop owners and thieves who fail through carelessness, haste, ignorance—or a calculated risk that no one will notice—to remove one or more labels.

"With so many parts marked, thieves never get them all. We sometimes get down to the last one, but we find a label. Every thief misses at least one." (Stockton)

"We were working salvage yards with administrative searches and came across a new model Neon crunched up, with the C-VINs and P-VINs missing. The owner had the model and inventory number, and the title, but it just didn't seem right. Sure enough, we found one anti-theft label with a different VIN, and the guy could not prove he owned the part. So we arrested him for possessing stolen property, and he's currently being prosecuted. The judge found probable cause for believing the guy stole the car and allowed us to confiscate it." (El Paso)

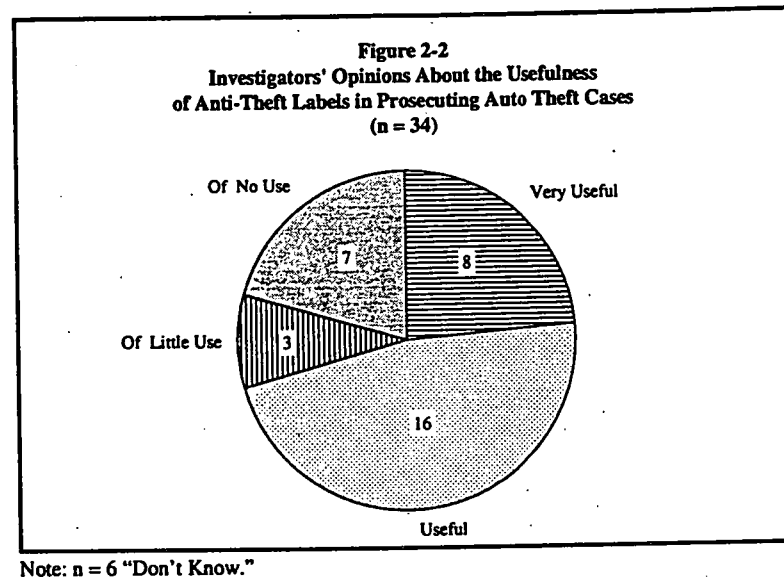
"We've had many cases where four or five labels were removed, but the thieves didn't get them all off." (New York City)

(continued)

Investigators related many other illustrative stories.

- "We discovered that a label on the hood of a car in a chop shop was different from the other labels on the car, so we seized it and found it was stolen. That gave us cause to return to the shop, where we recovered several additional stolen vehicles." (Colorado)
- "A sophisticated Russian auto theft ring specializing in BMWs had retagged an entire car, including the engine, the transmission number, and the electronic codings on the car computer. But they missed one label, so we were able to arrest the thief where the car was stored. Without the label, we had nothing on the guy." (Los Angeles)
- "A chop shop operator was removing labels, sanding and spray painting over the footprints, and putting on counterfeit labels on a bunch of Land Cruisers. However, he left the counterfeit labels on the running board of each car temporarily until he was ready to stick them on. Because of overspraying, we found the outline of the counterfeit labels left on the running board after he had affixed the last one. This was a red flag to us that something was fishy." (Metro-Dade [Miami])
- "In two major chop shop operations involving 200 Volkswagens each, thieves had switched the public and confidential VINs but not the anti-theft labels, which indicated that the vehicles were stolen. This allowed us to seize all the cars for closer examination and then bring charges." (Seattle)
- "We obtained a warrant to search a warehouse where an officer looking through an open window had seen a number of dismantled car parts. Inside, we found a car's frame with just the wheels, engine, and transmission remaining, but with the VINs filed off. However, there were anti-theft labels on many of the parts scattered throughout the shop. Using the VINs on the anti-theft labels, we were able to locate the victim, who identified the car. As a result, the thief—who boasted of chopping and selling an average of 20 cars a week—was arrested, prosecuted, and convicted." (Metro-Dade [Miami])
- "Professionals stole a car soon after its owner happened to have repainted it. The thieves did not realize the labels were underneath the paint. In an undercover operation, we posed as a body shop and bought the car from the thieves. We unpeeled the paint, found the VIN on the labels, traced it to its owner, and arrested the thieves." (New York City)
- "We had one case where we caught the thieves because they put counterfeit labels on a vehicle that wasn't supposed to have any labels." (Washington, D.C.)

Nearly two-thirds of the investigators (24 of 40) reported that labels are helpful in prosecuting chop shop operators and other automobile thieves. Nine said the labels were very helpful in prosecuting cases. (See figure 2-2.) For example, an investigator from the Florida Highway Patrol reported that his unit had successfully prosecuted several cases in the past year relying on labels.



Investigators reported that labels help with prosecutions in two respects.

- (1) The labels are useful in encouraging the State's attorney to file charges because their absence constitutes convincing evidence of theft or because the VINs on the labels are different from the confidential VIN.
- (2) Labels help prosecutors win cases because they provide valuable evidence that the vehicles or parts were stolen.

According to a Stockton investigator, "There's no problem at all obtaining convictions based on missing labels. I testify that they are put there in the factory as proof that they must have been there." An investigator in Milwaukee said, "We've had only one case go trial in the past five years; all the others pled guilty because the labels helped provide irrefutable evidence of theft." Some investigators reported that, while not sufficient evidence for a conviction by themselves, labels that were missing or tampered with contributed to securing a conviction. As an investigator with the Michigan State Police explained, "More points of identification

strengthen the case in court; the defense is hard on evidence, so you need more than one identification source. Component parts labels have greatly improved identification for court purposes.”

The most common crimes that jurisdictions charge when chop shop operators are the defendants are grand theft, receiving stolen property, possession of stolen property, and tampering with or removing anti-theft labels. Very few jurisdictions turn their cases over to U.S. Attorneys for prosecution, largely, investigators report, because “The Feds will accept only high profile cases” that involve interstate transport and either organized rings or large numbers of parts or vehicles worth a great deal of money. In addition, some investigators have no interest in proceeding federally because they have close working relationships with highly skilled local State’s attorneys who specialize in prosecuting auto theft cases. By contrast, a few investigators said they prefer to take their cases to U.S. Attorneys because the penalties for car theft are stiffer under Federal law than under many State statutes and because offenders convicted in Federal court are ineligible for parole.

Smaller Cities Generally Do Not Make Use of Anti-Theft Labels

Six smaller jurisdictions (see the box “Jurisdictions Contacted” in chapter 1) were contacted for this study, along with one very rural State, North Dakota, the population of whose largest city (Fargo) is only 61,000. Investigators from five of these jurisdictions reported that they made no use of anti-theft labels (one was unaware of their existence), and one other investigator said he made very little use of them. Only Stockton, California, the largest of the smaller jurisdictions, with 223,000 residents, and a jurisdiction with a relatively high auto theft rate comparable to that of many big cities (see appendix B), reported that the labels were useful in making arrests. Investigators in the six other jurisdictions reported that the labels were not ineffective but *irrelevant* to catching thieves because the principal form of auto “theft” they encounter is joyriding, not theft for profit. With joyriding, they recover vehicles—and all the VINs—intact. In addition, these jurisdictions reported they have few, if any, chop shops. Because of their minimal experience with labels, information from these seven jurisdictions has been excluded from the data analysis in this report to avoid skewing the findings for big cities and populous States. However, a few anecdotes of how Stockton has made use of labels are included for illustrative purposes.

Obstacles to Effective Use of Labels

Investigators reported that the most serious obstacle to making more effective use, or any effective use, of anti-theft labels is that they are easy to remove. Only nine jurisdictions reported that ease of removal was no problem at all. The following are typical of the comments investigators made in this regard:

“The labels are usually conspicuous and easy to take off—and usually have been—and then we can’t prove the parts were stolen because we can’t identify the owner.” (Oklahoma City)

“The big problem is removal—which happens 90 percent of the time, so they’re a big failure. Only an idiot doesn’t remove them, because they’re visible. They just have to wash the glue off and you can’t tell they were there.” (Boston)

Several investigators reported that when parts have no labels, there are two reasons why they cannot be sure whether the labels are missing or are simply not supposed to be there in the first place:

- Some automobile models do not change their parts design over a period of years—the parts are interchangeable—so that parts manufactured before the parts marking legislation went into effect will be unmarked legitimately.
- Some model years, but not others, are not required to have labels because the manufacturer has received an exemption as a result of installing an anti-theft device.

Despite the reported ease of removing the labels, most investigators said they can often still detect the footprint with an ultraviolet light¹ or prove that a label was mandated. As a Dallas investigator reported, “Thieves do sand and paint, but my detectives know whether a model *should* have a label, and they testify in court that it wasn’t there.” Furthermore, State law permitting, investigators can then seize the parts, arrest the owners, or both, because the label has been tampered with. However, as discussed further in chapter 5, “What Resources Are

¹The two major manufacturers of anti-theft labels also sell equipment that investigators can use for detecting footprints left by the removal of their respective labels. However, only one investigator reported using the equipment.

Available to Investigators," many jurisdictions do not have access to an ultraviolet light. Even with an ultraviolet light, because the footprint does not reveal the VIN, investigators often cannot identify the previous owner, which prevents them from proving that the parts were stolen. As a California Highway Patrol investigator said, "It's hard to prove they stole the part, so we just confiscate it." Furthermore, some of the smaller label manufacturers do not use the footprint technology. Finally, if thieves sand and paint the part, an ultraviolet light can no longer reveal a footprint.

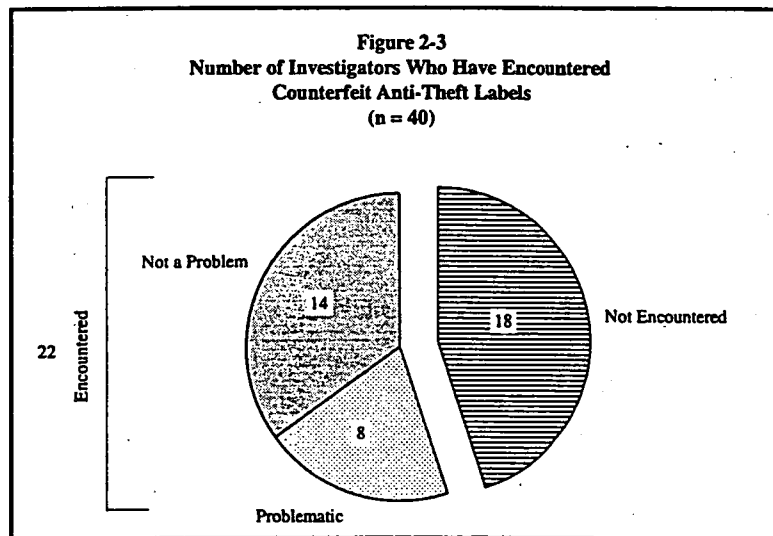
Several investigators reported that the labels' effectiveness is reduced because many patrol officers are not trained to take advantage of them. Even when they are familiar with the labels, most patrol officers make little or no use of them either because they have not received training in where to find them or because they have forgotten the training they received. As a result, some investigators said, few patrol officers will seize and turn over cars with missing or suspicious labels to their department or State auto theft unit for further investigation. As an investigator from San Jose said, "The problem is that patrol officers, who make most of the stops, have little idea what cars are supposed to have labels, so they don't even mess with them. They don't want to get into trouble having a car towed."

The potential benefit of training patrol officers to take advantage of parts marking is suggested by the comment of an investigator with the Los Angeles Police Department's Commercial Auto Theft Division. "We have been training patrol officers for two years to have extra sets of eyes out there looking for stolen cars; we train them as to when they have probable cause to look for marked parts. This has been so effective we could spend full-time investigating the leads these patrol officers now give us." Similarly, an Indianapolis auto theft investigator trains other city police officers to look for labels so that, if any are missing, they can seize the cars under the State's 48-hour impoundment statute until he can inspect them.

The only other significant barrier to making effective use of the labels, reported by just over half the jurisdictions (22), is the use of counterfeit anti-theft labels. (See figure 2-3.) A few investigators reported that thieves are using computer graphics to manufacture very sophisticated counterfeits:

- "Computers make it hard to tell what is not original; law enforcement is far behind the criminal element in technology." (Oklahoma City)

- “We’ve seen counterfeit labels good enough to fool dealerships.” (Milwaukee)



Four of the 22 jurisdictions that have encountered counterfeits have done so only once.

By contrast, over half the investigators who have run into counterfeit labels reported that they encounter them rarely (in some cases, only once) or said that the counterfeits are easy to recognize, either with the naked eye or with an ultraviolet light.

Investigators mentioned few other barriers to using labels. Every investigator reported that the component parts that the National Highway Traffic Safety Administration has required be marked are the parts that are stolen most frequently. Only two investigators reported either that thieves are switching to stealing parts not covered by the legislation or that salvage yards are able to hide or disguise their inventory in order to make it difficult for investigators to locate stolen parts. According to a Philadelphia investigator, “The large salvage yards bury the stolen parts in the center of a pile of legitimate parts, so we have to use a fork lift to get at the stolen ones.” Other investigators reported that salvage yards have too many parts to be able to hide them, and they have to keep the parts visible so customers can examine them.

The Effectiveness of Labels in Deterring Theft

In contrast to the consensus among the investigators that labels help them catch car thieves, *the investigators were about evenly divided in their opinions about whether anti-theft*

labels help deter auto theft. Investigators in 18 jurisdictions felt that the labels help to deter theft. A Nashville detective said, "A professional knows they are there, so he won't fool with the car unless he has a solid place for the part or vehicle to go and can do the job quickly." A detective in Fort Worth reported that "Some guys abandon cars in good condition because of the labels." Most of these investigators, however, felt that labels have their greatest deterrent effect with chop shop operators, especially since many States give law enforcement agencies authority to conduct "administrative searches" of salvage yards and repair shops without a search warrant.

- "Labels won't deter the career thief, but some body shops won't purchase parts with missing labels and without paperwork." (Michigan)
- "Salvage yards are reluctant to accept or keep parts without labels." (Chicago)
- "Chop shops do things differently because of the increased threat of being inspected and caught for missing labels—for example, they keep the identity of person who brought in parts. But it's the labeling that has put teeth behind our inspections." (San Antonio)
- "Honest body shops very frequently report suspicious parts because owners know they can go to jail if they receive them, so the incentive [to avoid selling stolen parts] is there." (Los Angeles)

Investigators in New York State, Austin, Houston, and Philadelphia also felt that labeling deters the crating and exporting of stolen cars, but eight investigators reported that the labels had no impact on exports. According to a Seattle detective, "Labels haven't made a difference in exporting stolen vehicles because thieves are bold, brazen, and quick." None of the investigators' experiences with anti-theft labels are associated with geographic proximity to Mexico or Canada, or with conducting investigations in a port city. This finding may reflect the fact that investigators reported that thieves often steal parts and cars in interior States for ultimate export rather than restrict their thefts to border States and port cities. Most investigators said they had no way of knowing whether the labels deter exporting either because their jurisdiction is not in a port or border city or State, or because U.S. Customs and other Federal agencies have primary or exclusive responsibility for addressing the problem of exported stolen vehicles. In addition, those investigators who work most closely with exported cars—U.S. Customs and other Federal agencies—were not contacted for this study.

Several investigators volunteered that, even if labels do not have a deterrent effect on auto theft, they do increase the "cost of doing business" to thieves. A New York City investigator told about an undercover job his unit conducted involving videotaping a body shop. "The tape recorded the owner telling a thief, 'I know that I said I would give you \$500 for that car, but I can give you only \$200 because the parts are marked. Now I'm going to have to go the trouble of removing the labels.' " The extra time thieves need to select cars without labels and the extra time chop shops must take to remove them may result in their having fewer hours to be breaking the law. Conversely, seven investigators reported that labels *decreased their* investigative burden. As one said, "If the label VINs match the public VIN, then we don't have to look further at the confidential VINs." According to another, "If you find a marked part, the investigation is practically over; otherwise, it can take days and days to identify a car." The time savings that labels provide these investigators may enable them to devote more time to catching thieves. While five investigators said that labels increase their work load because now there is something to follow up on, all added that they found the extra labor productive.

Chapter Three

CAN ANTI-THEFT DEVICES SUBSTITUTE FOR PARTS MARKING?

Key Points

- Investigators agreed that, while anti-theft devices—audible alarms, steering wheel “clubs,” kill switches, and “smart” keys—have deterrent value, most can be defeated; as a result, they are not an effective substitute for parts marking in preventing automobile theft.
- The small minority of investigators who had experience with recovery systems (e.g., Lojack, Teletak, and Global Position Satellite) reported that the systems are effective in recovering stolen cars, but that they, too, have limitations.
- Metal steering column sleeves, VIN window etching, and owner education were also identified as anti-theft deterrents.

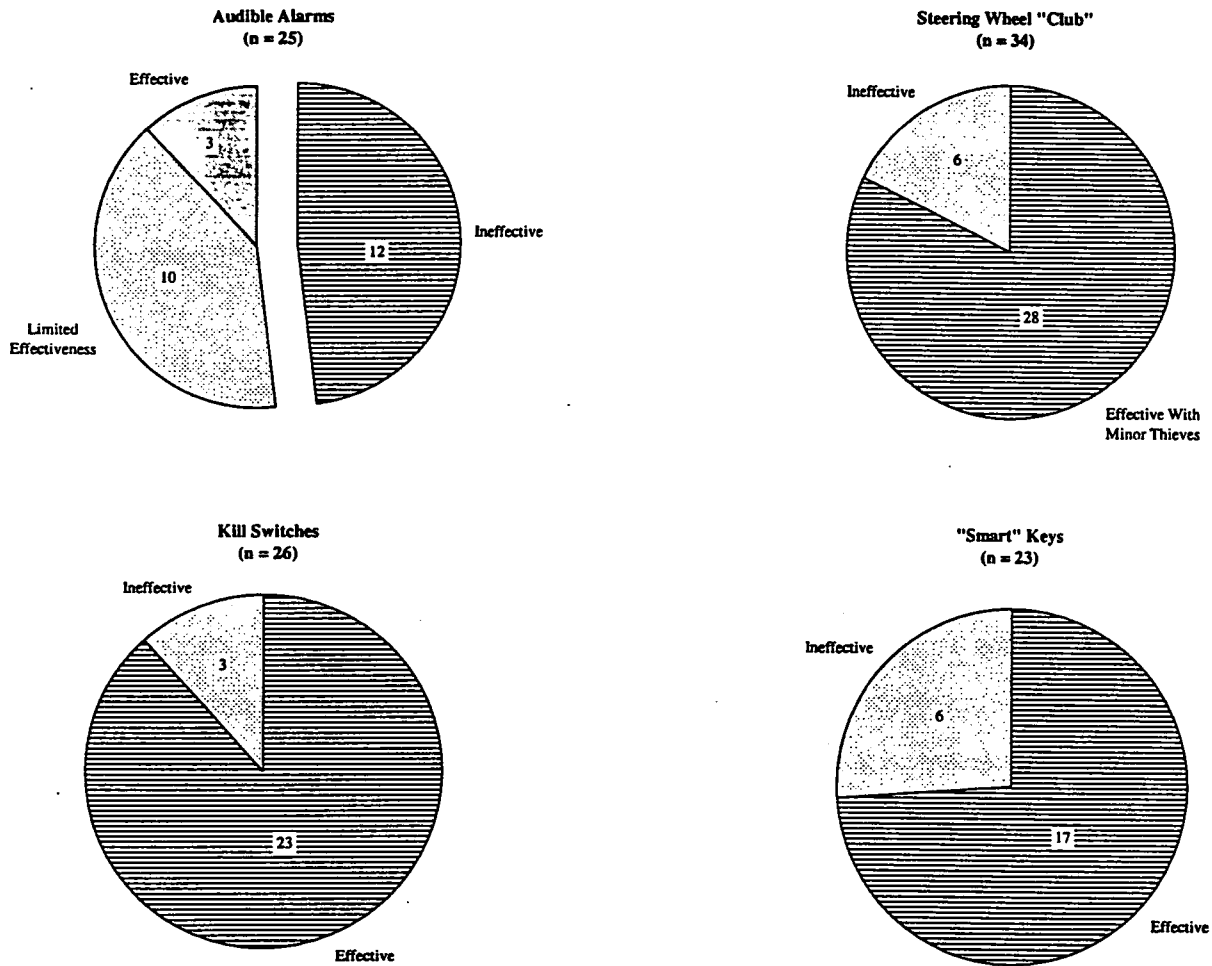
The Federal Anti-Car Theft Act of 1992 requires the Attorney General to determine by 1999 whether the anti-theft devices for which the Department of Transportation granted marking exemptions are an effective substitute for parts marking in substantially preventing automobile theft. While this assessment is a requirement of the long-range 1999 evaluation, not the initial 1997 evaluation, this report nevertheless provides auto theft investigators' opinions about whether the devices can substitute effectively for parts marking. Included in this discussion are the views of investigators on a variety of contemporary anti-theft devices and recovery systems in addition to the anti-theft devices currently recognized by DOT.

Of the 13 investigators who offered an opinion, all agreed that anti-theft devices are not an effective substitute because, while they may have deterrent value, most can be defeated. Because many investigators had no direct working experience with some of the specific anti-theft devices, the information reported below, as indicated, is based on the opinions of only selected investigators.

Anti-Theft Devices

Many investigators offered opinions about the deterrent value of audible alarms, steering wheel "clubs," kill switches, and "smart" keys. Figure 3-1 summarizes these opinions.

Figure 3-1
Investigators' Opinions Regarding the Deterrent Value of Four Antitheft Devices



Audible Alarms

Audible alarms use motion or impact sensors to trigger a siren. Of the 25 investigators who offered an opinion about car alarms, 13 agreed that the device is a good deterrent.

However, 10 of these investigators qualified their approval: seven said they are effective only with minor thieves (especially juveniles), and three said they are helpful only if combined with other devices (such as kill switches). Problems cited about car alarms are that they are usually ignored, they can be easily deactivated or circumvented,¹ and many owners fail to use them.

Steering Wheel "Clubs"

Investigators considered steering wheel "clubs" to be the most visible deterrent among anti-theft devices. However, while a majority of investigators (28 of 34) who had experience with the club reported that minor thieves are likely to avoid a car armed with the device because of the time and tools needed to defeat it, most investigators indicated the club is not a deterrent for professionals intent on stealing a particular car. Some professional thieves leave the club at the scene of the theft, or, if apprehended, gloat to law enforcement officers about their club collections. Six investigators claimed that the device has no deterrent effect. Eighteen investigators described how easily the club can be defeated—either by cutting the steering wheel or by freezing the club until it shatters. Two investigators observed that some victims owned the club but did not use it regularly. Ironically, a club can be a positive indicator of a car's value to a potential thief. One investigator even mentioned that clubs represent a potential danger to officers: by breaking the club apart and sharpening the steel rod, thieves can turn the device into a scabbard and sword reportedly capable of piercing a bulletproof vest.

Kill Switches

Kill switches are designed to render a vehicle inoperable by inhibiting the flow of electricity or fuel to the engine until a hidden switch is activated (NICB, 1996). All but a few of the investigators (23 of 26) who discussed kill switches thought that these devices deter theft; in fact, one jurisdiction uses a kill switch in its bait car to prevent car chases or loss. As with other anti-theft devices, however, most investigators felt that thieves will find a way to defeat

¹Thieves can deactivate car alarms by popping the hood and pulling wires. Alarms can be circumvented by breaking the window to access the car and transporting the vehicle to a location where it is safe to deploy the alarm. Also, since alarms are designed to stop when the car is raised at an angle, thieves can simply tow the vehicle away.

or circumvent kill switches. Since kill switches can be installed in several locations, investigators advocated choosing different locations to enhance their effect. Although kill switches will prevent the thief from driving the car away, investigators observed that, because it is not visible, the vehicle will probably sustain some damage (e.g., to the windows and ignition) when the unsuspecting thief breaks into the car. (See the section on Global Position Satellite below for a discussion of related problems.)

“Smart” Keys

“Smart” key, or anti-theft immobilization, systems feature a control module which allows electronic communication between a specially coded key and the ignition; the car will not start unless the key code matches the on-board code. Some smart key systems also block the operation of the starter, fuel line, ignition, and central engine control if improper access is detected (Siuru, 1996). Ford’s Passive Anti-Theft System (PATS), General Motors’ Vehicle Anti-Theft System (VAT), and BMW’s Coded Driveaway System are examples of smart key systems. Many investigators had heard of smart keys, but few had an informed opinion about their deterrent value. While 17 of the 23 investigators who had some experience with them said they were effective, many of these investigators, along with six investigators who were entirely critical of smart keys, cited serious limitations. For instance, thieves can avoid the anti-theft system altogether by towing or transporting the vehicle on a flatbed truck, or by obtaining the key illicitly.² One jurisdiction reported an increase in the theft rate of Lexus cars equipped with a smart key system. Four other investigators reported instances in which smart keys were defeated by unknown means.

Recovery Systems

In contrast to anti-theft devices, recovery systems use electronic tracking systems to locate vehicles equipped with transmitters after the vehicles have been stolen. Due to marketing, these systems have name brand recognition, and investigators are somewhat familiar

²One thief acquired coded keys by pretending to serve as intermediary in private car sales. Victims were unaware of the theft until the sales checks proved fraudulent.

with their design. However, to date, most States do not have the necessary equipment to utilize them—principally towers. Systems like Global Position Satellite (GPS), which use satellites rather than towers, are rarer still. Moreover, the cost of recovery systems is still prohibitive for most car owners. No one has seen these systems defeated, but investigators advise that, like kill switches, tracking devices need to be installed in random locations on cars so that thieves cannot find them easily. One Lojack option includes installation of more than one transmitter.

Lojack

Lojack is a beacon system activated by law enforcement once notified a vehicle has been stolen. All but one of the 10 investigators who had practical experience with Lojack reported it is effective in stolen vehicle recovery, including in chop shop and export cases. In one example, Lojack enabled an investigator to locate a stolen car crated for export, which led to the identification of six additional stolen cars. Problems investigators related about Lojack include: electrical interference in major cities; the delay between vehicle theft and police notification, which can permit the thief to dismantle or transport the vehicle out of the region; and the cumbersome and labor intensive method of tracking vehicles. The simplest Lojack system retails for nearly \$600.

Teletrak

Teletrak is activated by starting the ignition without a key. Of the three investigators who spoke from experience with Teletrak, two rated it the best recovery system. One complained of transmitter problems that nearly resulted in the loss of a bait car.

Global Position Satellite (GPS)

Global Position Satellite (GPS) is a wireless cellular system in which a tracker box installed on the vehicle emits a signal tracked by satellite and computer. The transmitter is set by remote control and activated automatically when the ignition is started. Four of the five investigators who had experience with GPS on at least an experimental basis said it is effective;

one was particularly impressed with its tracking precision. The GPS system offers an added kill switch feature which shuts down the engine by remote control. Two investigators were concerned about the system's 10 to 12 second kill switch delay because of possible accidents if the switch is activated while the stolen vehicle is in motion. GPS can cost as much as \$800 to install plus \$30 per month for service.

Other Anti-Theft Deterrents

Investigators identified several other anti-theft devices and strategies. One automobile manufacturer, for example, has developed a metal steering column sleeve to prevent thieves from defeating the ignition system by "hot-wiring" the vehicle. Four investigators said this device helps prevent theft, while another four reported seeing it defeated. Four investigators said they support etching highly visible VINs into windows; one investigator said this would be an effective deterrent because "it is cheaper to steal another car than to replace the windshield." Finally, several investigators recommended common sense approaches to deterring auto theft, such as increased education about locking doors, not leaving keys in the ignition, and parking in well-lit areas. One investigator recommended parking in a space close to another vehicle of similar make and model when possible, thereby reducing the likelihood of theft to 50:50.

Chapter Four

WHAT SHOULD HAPPEN TO THE PARTS MARKING LEGISLATION?

Key Points

- 13 Every investigator but one recommended that the parts marking legislation be extended to all automobile lines. With two exceptions, every investigator advocated requiring manufacturers to label all types of noncommercial vehicles, such as pickup trucks.
- 13 Many investigators recommended incorporating two additional features in the legislation.
 - While nearly every investigator felt that the parts that manufacturers are currently required to mark are the most stolen parts, all but six investigators also said that additional parts should be marked, citing seats and airbags most often.
 - Fourteen investigators recommended—sometimes in very strong terms—that manufacturers be required to stamp the VINs on the component parts.

This chapter summarizes the investigators' opinions about whether the parts marking legislation of 1984 and 1992 should be extended to all automobile lines and what additional features any new legislation should incorporate.

Opinions about Extending the Legislation

Every investigator but one said that *the legislation should be extended to include all automobile lines*. A Los Angeles investigator said, "It's an absolute must that labels should be on all cars for sale in the U.S. They're one of the most positive deterrents and identification tools ever invented and the least expensive way to help automobile theft go down." Several

investigators reported that automobile lines that have the highest theft rates nationwide are not necessarily the lines that are stolen most often in their jurisdictions. The one investigator who saw no need to extend the legislation said, "It hasn't benefitted me."

Eleven investigators volunteered that the "black box" exemption which allows the Department of Transportation, upon appeal from a manufacturer, to exempt cars equipped with certain anti-theft devices is a weakness in the law that should be eliminated.

- "The notion that the cars with these anti-theft devices aren't being stolen is c--p; they *are* being stolen." (San Francisco)
- "The reality is that these exempted cars get stolen, and, when high-theft line vehicles are stolen—and they're the ones most likely to have anti-theft devices—it's an expensive loss." (Milwaukee)

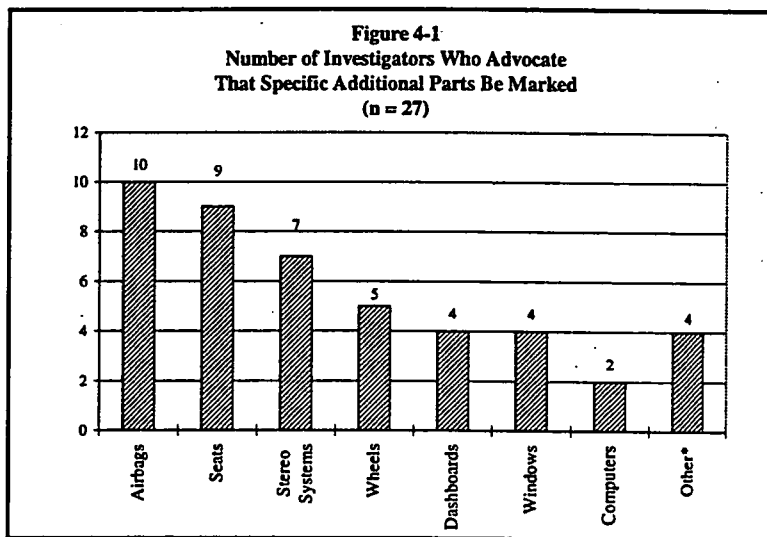
Investigators objected to the exemption for two reasons. First, when exempted cars are stolen, there are no labels they can use for tracing the vehicles. Second, as an investigator in Portland complained, "The black box exemption is one of our biggest headaches because we don't know if a part *should* have a label."

With two exceptions, every investigator advocated requiring manufacturers to *label all types of noncommercial vehicles*, including pickup trucks and sports utility vehicles. An investigator in Austin said that pickups were "the hottest item in Texas"; a Denver investigator reported that sports utility vehicles are "the biggest problem in the Mid-West"; and an investigator in San Antonio said "Chevy trucks are the number one stolen vehicle in this city."

Opinions about Additional Features the Legislation Should Incorporate

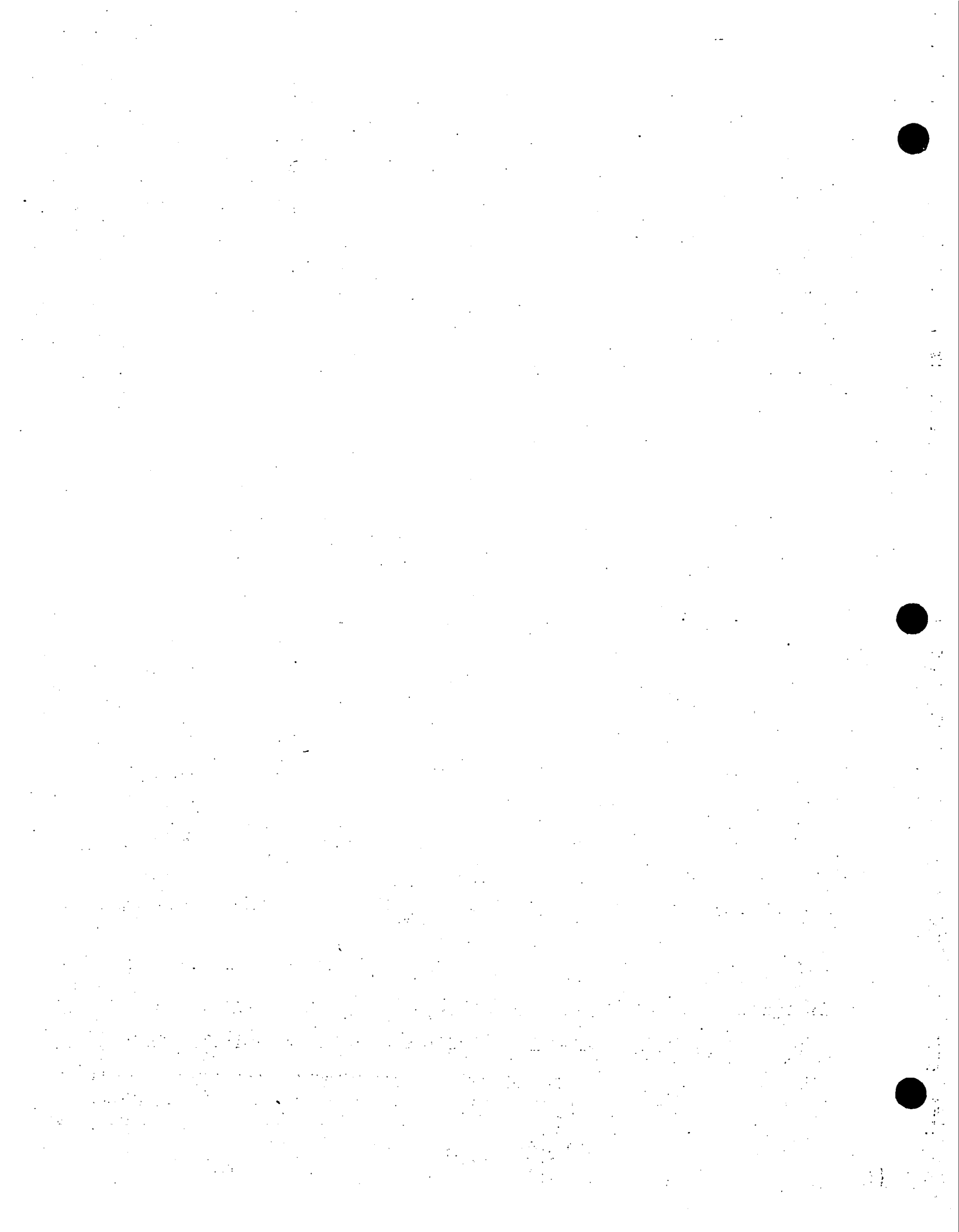
Every investigator reported that *the parts that manufacturers are currently required to label are the parts that are most frequently stolen*. However, all but five investigators felt that *additional parts should be required to have labels*. Many investigators advocated marking additional parts in general. When asked which parts they thought it would be most important to mark, most named specific parts, in particular, airbags and seats. (See figure 4-1.) Among the ten investigators who advocated marking airbags, one from Austin said, "There's a huge market for them," while a San Antonio investigator reported that "They're being stolen like

hotcakes.” A few investigators reported that one major automobile manufacturer is already placing a partial VIN on its airbags’ backplate. Four investigators said that etching a VIN on windows would be particularly effective in preventing theft because, as one investigator said, “Guys won’t steal those cars, because the etching is too visible to ignore and the windows are too expensive to change.”



*Unibody or frame rail; expensive rims; steering assembly.

Finally, fourteen investigators recommended—sometimes in very strong terms—that manufacturers be required to *stamp the VINs on the component parts*. As discussed in chapter 2, several investigators reported that labels are easy to remove, and, once removed, it can be difficult to determine whether the part was supposed to have been marked as well as impossible to identify the owner. Three investigators volunteered the suggestion that, if VINs can not be stamped onto the parts, they should be designed to leave the VIN as part of the footprint.



Chapter Five

WHAT RESOURCES ARE AVAILABLE TO INVESTIGATORS USING ANTI-THEFT LABELS?

Key Points

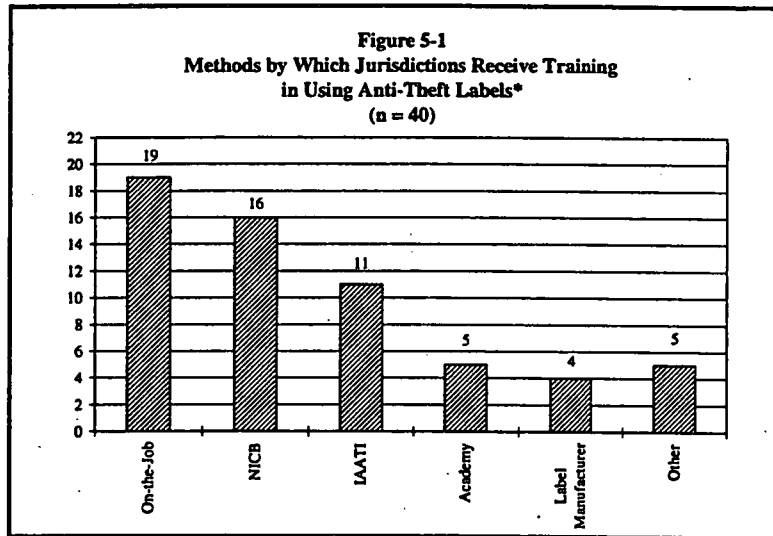
- ☛ Auto theft investigators make use of three principal resources to assist them in making effective use of component parts labels: training, technical assistance, and equipment.
- ☛ Auto theft investigators rely primarily on one or both of two organizations for training related to anti-theft labels: the National Insurance Crime Bureau (NICB) and the International Association of Auto Theft Investigators (IAATI).
- ☛ Jurisdictions receive help with investigations that involve anti-theft labels primarily from NICB, local auto theft task forces, or both. In many jurisdictions, NICB agents go on site to assist with investigations.
- ☛ Nearly half the jurisdictions use ultraviolet lights to detect footprints, but many jurisdictions report they do not have access to a light.

This chapter describes the principal resources auto theft investigators reported they have available for assisting them in making effective use of component parts anti-theft labels.

Training Resources

Auto theft investigators who expect to use anti-theft labels as an investigative tool need to know which parts are mandated to have labels, where the labels are located, whether they have been tampered with, and how footprints can be detected. As shown in figure 5-1, *auto theft investigators rely primarily on one or both of two organizations for training in these skills: the National Insurance Crime Bureau (NICB) and the International Association of*

Auto Theft Investigators (IAATI). Sixteen of the 40 jurisdictions receive training from NICB, an organization, funded by member automobile insurance companies, that is dedicated to preventing auto theft. Eleven jurisdictions use IAATI, a professional membership organization comprised of auto investigators nationwide. Seven of these jurisdictions receive training from the national IAATI office, while another four receive training from regional or State chapters.



*Jurisdictions may receive training from more than one source.

Five investigators reported that all officers in their departments receive training during the police academy, although two said that most officers forget what they learn. Two jurisdictions receive training from automobile manufacturers; three (all in Texas) from their State Department of Public Safety; one (Washington, D.C.) from the FBI; and six from companies that manufacture the labels, in some cases as part of IAATI training seminars. Many jurisdictions receive training from more than one of these sources.

Thirteen investigators reported that the only training their investigators receive is on the job. Generally, senior investigators train officers newly assigned to investigate auto theft. Several jurisdictions combine on-the-job training with the training resources identified above.

Technical Assistance

Investigators receive help with investigations that involve anti-theft labels primarily from NICB and local auto theft task forces. Two jurisdictions reported that manufacturers were occasionally of assistance in determining the locations of anti-theft labels.

The National Insurance Crime Bureau (NICB)

In addition to maintaining a comprehensive database of automobile numbers and histories, *about 200 trained NICB investigators stationed across the country are often available to assist State and local law enforcement agents in the investigation of auto theft.* Thirty-three jurisdictions reported making use of NICB's database or investigators in cases involving anti-theft labels.

- Twelve jurisdictions *telephone their local NICB investigators* for assistance—often frequently. According to a Los Angeles investigator, "NICB is our number one information source; everything is on its computers."
- Fifteen jurisdictions are able to ask local NICB investigators *to come on site* to assist with investigations. For example, an NICB agent is available on call 12-18 hours a week in El Paso and 24 hours a day in Boston.
- Six jurisdictions have one or more NICB agents *permanently attached to their auto theft units.* For example, two agents work two days a week with the Florida Department of Highway Safety; two agents work full time with the Houston auto theft unit; and one agent is assigned full time to the California Highway Patrol's Auto Vehicle Theft Task Force in Sacramento.

Investigators report that NICB provides several types of assistance. Agents may

- join local investigators at a salvage yard and use their laptop computers to tap into the NICB computer database from salvage yard (for example, to recreate full VINs from labels that have been partially destroyed or to find out whether an auto whose theft record has been purged from the NCIC database is still in the NICB computer), thereby enabling the officers to seize immediately any parts or vehicles that are determined to be stolen;
- help locate labels on a given part with a particular automobile year and line;

- provide expertise or equipment, such as ultraviolet lights, to identify a part where the label has been removed;
- act as a liaison to the insurance industry when insurance information is needed; and,
- provide front money for sting operations or bait cars.

Auto Theft Task Forces

Fifteen of the 40 jurisdictions have auto theft task forces that provide assistance to local law enforcement agencies. Typically, a municipal police department auto theft investigator is a member of the local task force. Department investigators use the task force to assist with or take over cases requiring special expertise or additional personnel or equipment, such as ultraviolet lights.

The composition of task forces varies considerably. However, they typically include the largest local municipal police department and the county sheriff's department. They may also include State or Federal agencies. The New York State Department of Motor Vehicles Investigations Unit in Albany is part of a task force that includes the U.S. Customs Service, the Quebec Provincial Police, and the Montreal Urban Police. Members of Houston's task force include the city police department, the county sheriff, the FBI, the Texas Department of Public Safety, and the NICB. Six suburban police departments make up the Western Wayne County task force along with the Detroit Police Department, the Michigan State Police Department, and the county sheriff.

Equipment

Nearly half (19) the 40 jurisdictions use ultraviolet lights to detect footprints. Several investigators report that the technique is very helpful in detecting whether a part once had an anti-theft label. By contrast, two investigators who do not have an ultraviolet light said they did not need one because they always know whether a part belongs to an automobile line or model that is required to have a label.

Chapter Six

CONCLUSION

Key Points

- A synthesis of the study's findings suggests the following:
 - component parts anti-theft labels appear to help most big city and State investigators to make arrests and prosecute cases;
 - investigators were almost evenly split about whether the labels deter auto and parts theft;
 - anti-theft devices are not considered sufficiently effective to grant exemptions to lines that come equipped with anti-theft devices;
 - almost all investigators would like the parts marking legislation extended to all automobile lines; most also want the legislation expanded to include all noncommercial vehicles and additional parts.
- Investigators suggested three steps that might enhance the effectiveness of parts marking in effecting arrests:
 - more systematic and frequent training of auto theft investigators and patrol officers in how to make use of the labels;
 - more widespread State legislation making tampering with or removing labels a crime; and,
 - access to ultraviolet lights and other equipment for detecting footprints

This chapter synthesizes the implications of the auto theft investigators' experiences and opinions in relation to parts marking and reviews the investigators' proposals for increasing the legislation's effectiveness.

Implications of the Study for the Parts Marking Legislation

Three-quarters of the big city and State investigators contacted for this study reported that component parts anti-theft labels help them to make arrests and prosecute cases. With regard to arrests, 16 found them *very helpful*, while five found them *of no help*.

Investigators were about evenly divided about whether anti-theft labels deter auto and parts theft. Many investigators reported that nothing will deter professional thieves and that amateurs do not know the labels exist. Investigators who reported that the labels do have a deterrent effect feel that the effect is strongest with chop shop operators.

Very few investigators reported that anti-theft devices are effective enough to warrant exempting certain automobile lines from the marking requirement. While a majority believe that certain anti-theft devices are helpful in deterring theft, most also believe that professional thieves can defeat them. Several investigators noted that devices like the club primarily have only a displacement effect—that is, they simply motivate thieves to look for another car that has no club. Several investigators observed that many drivers do not bother to use the anti-theft devices they have.

Consistent with this experience, *every investigator but one recommended that the parts marking legislation be extended to include all cars.* Investigators reported that the models that are stolen the most frequently according to national statistics are not always the models stolen most often in their jurisdictions. Most investigators said they would like the legislation to cover not just all passenger cars but also *pickup trucks and sport utility vehicles*. Some reported that these are the types of vehicles stolen most often in their jurisdictions.

Several investigators were critical of the “black box” exemption which allows the Department of Transportation, upon petition by a manufacturer, to exempt from the marking requirement a limited number of automobile lines that are equipped with certain anti-theft devices. Several investigators reported that the exemptions make it difficult to know whether a part is supposed to be marked.

Finally, a large majority of investigators expressed a preference for *mandating labels on additional parts*, citing seats and airbags most frequently.

A majority of investigators recommended—some vehemently—that VINs be stamped on the component parts instead of placed on labels. Citing ease of removal and the resulting

difficulty proving the part was stolen and identifying the owner, some investigators felt that parts marking is useless unless the VINs are stamped. However, most investigators were quick to state that, if manufacturers consider stamping to be prohibitively expensive, they were still "happy with what we have."

As a substitute for stamping, a few investigators proposed that label manufacturers develop the technology that will leave a footprint with the actual VIN if the label is removed. With a VIN in the footprint, investigators would be able to identify the vehicle's owner. Two investigators were aware that a label manufacturing company is in the process of testing a label that will, if removed, leave the VIN in the footprint.

Finally, four investigators expressed concern that automobile manufacturers are purportedly considering abandoning confidential VINs on the grounds that anti-theft labels make them unnecessary. One investigator reported that, if a vehicle without a confidential VIN were to be torched, there would be no other way to identify the car at all. The same investigator reported that one major automobile manufacturer has already discontinued using confidential VINS.

Other Ways to Make the Legislation More Effective

Investigators suggested three steps that might enhance the effectiveness of parts marking in effecting arrests.

More systematic and frequent training regarding the labels might improve jurisdictions' ability to use them effectively. Some investigators are unfamiliar with how to make the most effective use of anti-theft labels. This may reflect the fact that training of auto theft investigators was reported to be unsystematic in some jurisdictions, with training often conducted on the job. Furthermore, while some investigators have manuals that indicate which cars are required to have labels, other investigators reported they have to call the National Insurance Crime Bureau for this information. Several implied that, rather than take the time to call, they either abandon the investigation or pursue other, less efficient, investigative avenues.

Several investigators said that patrol officers could be more aggressive in identifying stolen cars if they received training regarding the vehicles that are required to have labels, the locations of the labels, and their right to seize vehicles with missing or damaged labels. As one

investigator said, "The manual I use to find out which cars have labels is a half inch thick. How is a beat cop supposed to figure that out in 10 minutes of training?"

Several investigators reported that *the absence of State legislation making tampering with or removing labels a crime prevents their using labels effectively*. For example, an investigator from Oklahoma City reported that without a statute in his State, he can only bring charges of possession of stolen property for these activities. By comparison, in some other States it is a felony to remove a label or to have a component part with a label removed. Investigators in five jurisdictions also said that thieves can avoid salvage inspection statutes in their States by having the cars retitled in another State that does not require inspections of anti-theft labels. As a result, they suggested that a Federal statute requiring a salvage examination nationwide would make the labels more effective in both deterring and catching thieves.

Finally, *increased access to ultraviolet lights and other equipment for detecting footprints* might improve investigators' effectiveness in using labels to arrest thieves.

In summary, most investigators in the large cities contacted in this report and in the States with one or more large metropolitan areas reported that anti-theft labels are useful in making arrests and prosecuting thieves. Almost all the investigators felt that anti-theft devices have significant limitations. Many investigators suggested that, with improved officer training and additional State legislation, the labels' effectiveness could be improved still further. While most investigators report that labels help in recovering stolen parts and cars, and in catching thieves, only about half the investigators believe that the labels deter car theft.

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Appendix A

Glossary of Terms

Black Box Exemption	Term some investigators use to describe the exemption from the parts marking requirement that the Federal legislation allows the Department of Transportation to grant to manufacturers that equip cars with effective anti-theft devices.
Chop Shops	Premises engaged in disassembling or storing of unlawfully obtained passenger motor vehicles or parts with the purpose of altering or removing the identify of the vehicles or parts and selling or disposing of them, typically to auto repair and body shop, or to individual purchasers.
End Users	Body shops, dismantling operations, salvage yards, wrecking yards, and automobile dealerships.
Footprints	In more recent labels, chemicals that migrate into the automobile's paint when anti-theft labels have been removed; ultraviolet light can usually detect the chemicals.
IAATI	The International Association of Automobile Theft Investigators, a professional association for law enforcement officers involved in investigating auto theft.
NICB	The National Insurance Crime Bureau, a research organization funded by selected automobile insurance companies to act as an international repository of information related to automobile insurance claims and histories. The NICB receives, stores, and distributes information submitted to it by the National Crime Information Center (NCIC), member insurance companies, and U.S. Customs. At the request of law enforcement agencies nationwide, the bureau provides information about the history of any automobile.
Salvaged Vehicle	A vehicle damaged or stripped so extensively that it is no longer worth repairing.
VIN	Vehicle Identification Number. The 17 characters of a VIN indicate the vehicle's country of origin, type of engine, year and plant of manufacture, the true serial number of the vehicle, and other information. Every vehicle has its own unique VIN.



Appendix B
Motor Vehicle Theft Data for Cities and Municipalities

<u>City</u>	<u>Population</u>	<u>Motor Vehicle Theft Offenses</u>	<u>Per Capita Rate¹ (per thousand)</u>
Austin, TX	523,691	3,581	6.84
Baltimore, MD	712,209	11,172	15.69
Boston, MA	550,715	10,036	18.22
Chicago, IL	2,749,881	36,197	13.16
Cleveland, OH	495,074	9,058	18.30
Columbus, OH	638,729	7,040	11.02
Dallas, TX	1,042,088	16,882	16.20
Denver, CO	505,843	5,241	10.36
Detroit, MI	997,297	29,273	29.35
El Paso, TX	590,215	3,882	6.58
Fort Worth, TX	460,321	4,861	10.56
Houston, TX	1,734,335	22,536	12.99
Indianapolis, IN ²		6,016	
Jacksonville, FL	679,148	5,736	8.45
Kansas City, MO	445,549	6,792	15.24
Long Beach, CA	436,034	5,420	12.43
Los Angeles, CA	3,466,211	46,212	13.33
Memphis, TN	623,902	13,837	22.18
Miami, FL	378,720	8,832	23.32
Milwaukee, WI	622,467	11,345	18.23
Nashville, TN	523,681	8,115	15.50
New York, NY	7,319,546	72,679	9.93
Oklahoma City, OK	466,232	5,115	10.97
Philadelphia, PA	1,529,848	23,809	15.56
Phoenix, AZ	1,085,706	23,161	21.33
Portland, OR	458,623	9,113	19.87
San Antonio, TX	999,900	8,422	8.42
San Diego, CA	1,157,771	12,342	10.66
San Francisco, CA	738,371	8,291	11.23
San Jose, CA	822,845	4,225	5.13
Seattle, WA	529,526	6,944	13.11
Washington, D.C.	554,000	10,192	18.40

<u>Municipality</u>	<u>Population</u>	<u>Motor Vehicle Theft Offenses</u>	<u>Per Capita Rate (per thousand)</u>
Boise, ID	149,856	493	3.29
Minot, ND	35,518	64	1.80
Sarasota, FL	55,241	278	5.03
Stockton, CA	223,752	3,481	15.56
Syracuse, NY	159,603	793	4.97
Victoria, TX	61,724	241	3.90

Source: Federal Bureau of Investigation (1996).

¹Per capita calculates theft rate based on population in reporting jurisdictions; cars may be reported stolen by nonresidents excluded from the population figure (e.g. Miami rate overestimates impact on population).

²Indianapolis/Marion County is a unified city-county government with a total population of 772,792.

