U.S. Department
of Transportation
**National Highway
Traffic Safety
Administration**

Auto Theft and Recovery

Effects of the Motor Vehicle Theft Law Enforcement Act of 1984

**Report to the Congress
March 1991**

Appendix 2

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U. S. Department of Transportation
National Highway Traffic Safety Administration

Summary of Docket Comments

Docket No. 90-15, Notice 1

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Summary of Docket Comments
(Continued)
Docket No. 90-15, Notice 1

90-15-N01-001 State of Michigan Automobile Theft Prevention Authority

A. The Michigan Automobile Theft Prevention Authority supports the continued marking of major vehicle parts with the vehicle identification number.

B. While there is no clear-cut cause and effect relationship which ties VIN marking rules to Michigan's success, many auto theft investigators believe VIN marking has been a crucial element in many of their cases and should be expanded to all vehicles.

C. Auto thefts have been reduced 13 percent in Michigan since 1985.

   1. Success is based upon law enforcement agencies, manufacturers, insurance companies, and community groups pulling together on the auto theft problem.

D. NHTSA should continue or expand the VIN marking rules.

90-15-N01-002 Avery Label Systems

A. Avery Label, a supplier of pressure sensitive parts marking labels to the automotive industry, believes the data are inconclusive in assessing the effectiveness of the legislation.

B. Steps that will lead to a meaningful analysis include:

   1. Random assignment of parts marking to both passenger car and light truck lines.

   2. Inclusion of 1989, 1990 and 1991 model year data.

   3. Measurement of the effect of the legislation on models more than two years old when the the parts market for chop shop operations is greatest.

   4. Extension of the program to certain electronic components, wheels and seats, along with the adoption of a visual warning identifying these components on the vehicle as being marked.

C. Although a visual warning may not deter professional thieves, it may deter the inexperienced thief whose primary motive is quick resale of a few highly marketable components.

D. Encourage greater communication and cooperation between the law enforcement community, the insurance industry and the automotive manufacturers.

E. Improve the security level of parts marking products.

F. Advantages of pressure sensitive products are:

1. Variable imaging of numbers in an assembly plant with minimal capital investment.

2. Ease of application to a variety of substrates.

3. Low cost compared to stamping or etching techniques.

G. Avery will be reviewing new pressure sensitive technology with NHTSA and automobile manufacturers during September.

H. In summary, the parts marking program can be an effective method of deterrence and prevention of certain classes of auto theft if several changes are made in program guidelines and implementation.

I. Avery believes pressure sensitive is the most cost effective method for automotive manufacturers to comply with the legislation.

J. Avery is willing to commit whatever resources may be necessary to improve the security features of parts marking products.

90-15-NOI-003 Florida Highway Patrol; International Association of Chiefs of Police, Vehicle Theft Committee

A. The Vehicle Theft Committee of IACP recommends the theft prevention standard be continued. A review, based on five years of theft data, covering model years 1987 through 1991 should be conducted.

B. The Committee further recommends that:

1. Parts marking be accomplished through stamping, engraving or etching because labels are removable.

2. The standard should require a derivative VIN in a uniform location on all engines and transmissions.

3. Additional high theft items such as radios, seats, t-tops, wheels, batteries, and the like should be marked.

4. Extend parts marking to MPV's, vans and light trucks.

5. Extend parts marking to all passenger vehicles.

C. The minimal cost of $4.14 per unit is far outweighed by the $8.1 billion loss in 1989, which does not include losses such as work time, temporary transportation, increased insurance premiums, law enforcement expenses, new vehicle and interest cost.

D. Criminal charges filed were not addressed in the report. Marked parts facilitate charging of perpetrators.

E. Parts marking makes identification of suspect vehicles easier and more expedient. This cost saving is not addressed.

F. Consumers, motor vehicle dealers, and repair shops benefit from parts marking by confirming parts identification to expedite servicing and repair.

90-15-NOI-004 Allstate Insurance Company

A. Allstate strongly believes that parts marking as mandated by the 1984 Act will ultimately have a major impact on Auto theft activity.

B. Allstate believes it would be extremely premature to discontinue parts marking at this time.

C. The major conclusion which should be drawn [based on Allstates analysis of the data] is that theft of current model year vehicles subject to parts marking is lower than expected. However, no cause and effect relationship can be established from the available data. Allstate says this conclusion is consistent with the HLDI study [see 90-15-NOI-020]. Allstate's analysis includes:

1. Calculation of linear regression lines based on 1984-1986 theft rates [using NCIC and R. L. Polk data] for current model marked and unmarked car lines [and similarly 1984-1987 theft rates for one year old car lines].

2. Extrapolation of regression lines to 1987 and 1988 for current models (and 1988 for one year old models) to calculate expected theft rates.

3. Comparison of expected values to actual values of current and one year old model marked and unmarked carlines.

D. Allstate believes that evidence [based on their analysis of the theft data] is sufficiently strong to indicate that parts marking should be both continued and strengthened.

E. Allstate suggests that the Motor Vehicle Theft law enforcement Act of 1984 be enhanced to include:

1. That the labeling process require that when the label is removed evidence be left that it had been affixed.

2. Expansion of the coverage of parts marking to include light trucks and vehicles exempted for antitheft devices. Theft of light trucks is a major problem in some localities.

F. Parts marking alone will not solve the vehicle theft problem. Parts marking combined with better salvage and title laws plus increased law enforcement surveillance of the salvage industry using future improved technology will stop the flow of illegal parts.

90-15-NOI-005 3-M Safety and Security Systems Division

A. 3M finds VIN labeling a useful investigative tool based on experience of 3M, law enforcement officers and insurance investigators. International Association of Auto Theft Investigators passed a resolution to this effect. 3M also supplied testimonials by investigators on the subject.

B. 3M suggests NHTSA reconsider its interpretation of the Congressional intent in enacting the 1984 Theft Act. The Act covers vehicle theft from several aspects.

C. The report provides a short term look at a program designed to address a long term goal of auto theft reduction. Because of the short term look the report was forced to be inconclusive.

D. As there is more public knowledge about parts marking there will be even more improvement on auto theft [reduction]. NHTSA and auto manufacturers have done little to publicise parts marking.

E. NHTSA should provide public information on marking program and training support for law enforcement.

F. The report founders on problems of comparing high theft rate and low theft rate carline groupings and introduces an unsupported assumption that there exists a statistical tendency for all cars to approach the same theft rate. Because there are unmarked carlines with high theft rates, 3M says this would result in the low-theft rate group showing a rise in theft rates - not a statistical tendency.

G. The raw numbers of stolen marked cars show a decline for 1987 and 1988 models while there was an increase for unmarked 1987 and 1988 models.

H. The theft rates of marked 1987 and 1988 carlines declined and, if the NHTSA's hypothesis is not considered, the result is very positive for the marking program.

I. Projecting trend lines based on theft rates of predecessors marked carlines in 1984-1986 would result in higher theft rates of 1987 and 1988 marked models than actually experienced.

J. NHTSA says that high and low theft cars represent different propulations yet their unfounded hypothesis of regression to the mean implies some central tendency for these populations.

K. Auto theft investigators say three to five year old cars are stolen more often for their parts for use as replacement parts. The report did not examine thefts of older marked carlines.

L. 3M questions the observation that vehicle age has no impact on the probability that of a car will be stolen. The report indicates that auto theft investigators say that older cars are more likely theft targets.

M. 3M questions conclusions on recoveries which are based on only one year of complete data (3M says the second year of recovery data is not usable).

N. NHTSA appears to have ignored the published HLDI data which showed a reduction in incidence of thefts for marked cars and an improvement in recovery rates.

O. The benefits of labelling have been ignored:

1. The average cost of an unrecovered marked car at $5,000 is too low. Paid claims for high-theft vehicles range from $11,000 - $13,000 as shown in the report. The average price of a new marked car is about $15,000.

2. If vehicle thefts need to drop by 3,000 than the report demonstrates a benefit since marked car thefts dropped from 7,000 to 9,000.

3. Even though there are no statistical studies, there are cases cited where VIN labels triggered investigations that helped solve auto theft and other crimes.

P. The costs of labels range from $2.19 to $3.29 which is far below the $15 allowance.

Q. The cost of labels is far less burdensome on manufacturers relative to other security measures.

R. 3M is confident that there is no better, cost effective method for manufacturers to identify component parts.

S. NHTSA should clarify its cost estimates to consumers for parts marking which exceeds the costs of labels.

T. The report does not examine the cost effectiveness of antitheft devices.

U. Since recovery rates of carlines equipped with antitheft devices is less than the recovery rate of marked cars, carlines equipped with antitheft devices could also benefit from labels to help in their recovery.

V. The report mentions one instance where it is possible to completely remove the label and adhesive. 3M has supplied lab data to NHTSA in which it was not possible to remove 3M labels intact. Experts admit that all pressure sensitive labels can be removed - the key is the reuse of labels.

W. The report overlooks the fact that possessing a part which has had its label removed may be a crime. 3M also suggests NHTSA research and set standards for anti-counterfeiting features of security labels.

X. 3M labels meet and exceed all current standards.

Y. The theft rate for light trucks, etc. is up 71 percent since 1984 and 3M supports NHTSA's suggestion to consider expanding the standard to include all passenger vehicles as well as light trucks, vans and multipurpose vehicles.

Z. NHTSA's statement that passenger cars are the predominant theft problem should be reconsidered - light truck theft rates are rapidly increasing and motorcycle and heavy truck theft rates are at least twice that of cars.

AA. It is a futile exercise to study comprehensive insurance premiums since only six percent of insurance costs are attributable to car theft.

BB. Views of other parties:

1. Law Enforcement - VIN labels play an important part in auto theft investigation.

2. Insurance Industry - HLDI report indicates marking of vehicles may have reduced incidence of their theft. NATB recognized authority on auto theft supports parts marking.

3. NADA, AAA, Automotive dismantlers, car rental companies - all support parts marking.

4. Auto manufacturers - while some manufacturers may be unconvinced, Toyota voluntarily marks lines not designated to be marked, Mazda is rethinking the issue. The manufacturers main objection has been cost but the actual costs are only 16 percent of that allowed by the Act.

CC. Given the way the law was written, and other considerations, the report could be expected to be inconclusive.

DD. Antitheft devices and labels address different auto theft issues and should not be seen as mutually exclusive but rather as mutually supportive.

EE. 3M recommends that parts marking security standards be raised.

FF. 3M recommends that NHTSA develop and promulgate cost effective standards for manufacturer's to voluntarilly mark parts.

90-15-NOI-006 International Association of Auto Theft Investigators

A. IAATI's original position was that the law would help identify major stolen parts, help recover parts and reduce vehicle theft, and that marking be done by stamping as opposed to labeling.

B. As vehicles have only been marked since the 1987 model year not much statistical data would be available for the five year report. It was not unexpected that the agency had to issue this "inconclusive report". Further study is necessary to evaluate the effectiveness of the law.

C With only a total of four percent marked vehicles on the road any statistical analysis of effectiveness of marking is considered so insignificant as to be meaningless. The chance of auto theft detectives being involved in marked cars is minimal at best. Additionally:

1. Auto thieves preferences for stealing particular models can change from model to model on a weekly or monthly basis.

2. Given a choice a thief would attempt to steal an unmarked vehicle rather than a marked one.

3. To make a valid determination of the impact of marking, all passenger vehicles, light trucks and vans should be marked.

D. While mentioning the use of "chop shops" the report did not consider theft for "retagging' or "salvage switch" which police probably consider as severe as the "chop shop" problem.

E. The report mentions the motives of thieves in stealing vehicles. IAATI sees no need for this discussion since the Act is based on the fact there are various types and motives for vehicle theft.

E. On pages 8 and 9 the report shows a 25 percent reduction for 1987 and 1988 marked cars compared to previous years. Unmarked cars show a 73 percent increase since 1984. On page 10 in reference to the statement relative to pre- existing trends of theft rates of predecessors to marked and unmarked cars, the term "predecessors of marked cars" was not defined, nor was it shown how the agency arrived at the conclusion in the statement.

F. On page 11 the report's observations are confusing because the table on page 9 shows theft rates of marked carlines decreased by 5.2 percent and unmarked carlines increased by 13.1 percent. Data on page G-19 show a 61.55 percent difference between marked and unmarked

carlines. Both NCIC and NATB data indicate marked carlines have a more favorable theft rate than unmarked carlines.

G. The Voluntary Compliance Standard which could be issued by the agency was not mentioned in the report. IAATI has sent resolutions urging issuance in 1986, 1987, 1989 and 1990 and has not received a response.

H. IAATI desires that the numbers be stamped. Also that manufactureres continue to stamp the motor and transmission. Some manufacturers have indicated they would not continue this procedure. This would be a setback for auto theft investigators. IAATI recommends this current stamping be made a requirement for all manufacturers.

I. On pages 12 to 16, regarding recovery statistics, IAATI notes that NCIC does not record the condition of recovered vehicles, whether they were recovered intact or completely stripped of all major parts. Also:

   1. UCR statistics were used extensively, but not the statistics required by this law and submitted by insurance companies. They would have been a valuable input into the analysis.

J. IAATI states that for any meaningful analysis of recovered vehicles, all meaningful data available should be used. The conditions of the recovered vehicles was not researched completely as it should have been.

K. On page 24 of the report it is stated that parts marking would lead to more detecting and recovering of stolen vehicles and parts, but they do not think it will deter auto theft. IAATI states that if all parts were marked, most vehicle investigators would definitely believe it would deter auto theft.

L. IAATI recommends:

   1. Further study for at least 3 additional years to determine effectiveness of the law.

   2. Mark all vehicles

90-15-N01-007 Chrysler Corporation

A. Chrylser is disappointed with this report because it lacks detail and depth.

   1. Most of the results are not comprehensive or conclusive.

   2. The common thread running through the report is that the objectives of the Theft Act are not being met.

B. The NHTSA must recommend to the Congress that the parts marking standard be terminated for all future motor vehicles.

C. Chrysler comments are organized on the basis of the requirements for the 5-year report set forth in Section 614 of Title VI - Theft Prevention, which was added to the Motor Vehicle Information and Cost Savings Act.

D. Timing. There is still time for the final report to be submitted to the Congress by October 24, 1990.

E. Theft and Recovery Information Sources. Except for the deficiencies noted in the appendix, no comments are made about the reliability, accuracy, and timeliness of the collecting, compiling, and disseminating activities of the four organizations which collect and compile national theft and recovery information.

   1. No reference is made to the collecting, compiling, and disseminating of information by motor vehicle classes, although summary charts of NCIC theft and recovery data by vehicle type are shown.

   2. No suggestions are made as to how the currently available theft and recovery information can be improved.

F. Theft and Recovery Data. Theft and recovery data for vehicle types are not subdivided by model, make and line as requested by Congress and as used to determine parts marking status.

G. NCIC theft and recovery data are not included for the years prior to 1984 and the year 1989, even though 1989 data was made available to the NHTSA in January 1990.

H. Vehicle Theft for Parts or Export. Estimates of percents of vehicle thefts for chop shop operations and export are not particularly accurate.

I. Approximately 168,000 passenger cars were stolen and unrecovered in 1988.

   1. Between 88,000 and 141,000 passenger cars are believed to have been stolen for chop shop operations.

   2. Between 35,000 and 146,000 passenger cars are believed to have been stolen for export.

   3. One or both of the maximum numbers in these "beliefs" cannot be used because both maximum-plus-minimum combinations add up to more than the initial total group.

J. The report includes additional numbers of cars believed to have been stolen for fraud (which the Congress did not request.)

1. The fraud range of 79,000 and 220,000 goes well beyond the total of 168,000 cars before any possible combinations with the chop shop range and the export range are considered.

K. The data lead to the conclusion that no one (except the thieves) knows the extent to which motor vehicles stolen annually are dismantled to recover parts or exported.

L. The seriousness with which the government views the export problem seems to be subject to question.

1. The U.S. Customs Service implemented stricter vehicle export requirements four and one-half years after the passage of the Theft Act which included stronger vehicle export requirements and penalties.

M. Market for Stolen Parts. The statement that the "used/rebuilt" portion of the major sheet metal parts market was 4 to 5 percent during 1988 is vague or possibly misleading, since "rebuilt" usually refers to engines and transmissions.

N. Five years of study and research should provide a much better understanding of the stolen parts market than everyone had before the Theft Act was passed.

1. The statement, "Stolen parts comprise a portion of this used part market," is surely not the "description of the market" the Congress expects to receive.

O. Costs Versus Beneficial Impacts. The production analysis process and factors which led to the finding that the highest cost to a manufacturer was $3.35 per car is deficient when compared to actual costs incurred in the manufacturing process.

1. The estimated highest cost to purchasers of $5.49 per car is questionable because the cost of parts marking is borne by the manufacturer and has to be passed on to the consumer.

2. Chrysler believes that the NHTSA estimate of $15,400,000 cost to consumers for parts marking in 1988 will be much higher when more realistic cost data are used.

P. Although investigators believe parts marking is useful in chop shop cases, inspections of salvage yards, steal to order operations, and insurance fraud, the benefits of parts marking so far have not been measurable.

1. No insurance premium reductions have been determined yet for marked cars.

Q. Since the monetary value of the beneficial impacts is so small and the costs of parts marking is large, the cost-benefit ratio is tilted strongly in opposition to the parts marking standard.

R. Prosecution and Reduction of Thefts. The report provides very little information which relates to Titles II or III provisions.

1. Only 50 or so cases are filed each year under the sections of law created by Title II.

2. Arrests and prosecutions in 1988 were possible for only between approximately 0.4 and 1.8 percent of the passenger cars believed subject to Title III provisions.

3. Because of inadequate numbers of theft investigators and the low priority of auto theft in terms of police resources in many jurisdictions, there are few arrests and successful prosecutions under any provisions of the Theft Act at state and local levels where (the majority of) cases involving motor vehicle thefts and stolen parts sales are prosecuted.

4. The research apparently turned up very little useful information regarding the experience of Federal, State and local officials.

S. Insurance Premium Changes. No clear relationship was determined between insurance premium changes and likely theft status.

1. There is no indication that any insurer has (1) increased premiums because a vehicle has been determined by the NHTSA to be a likely candidate for theft, (2) reduced premiums for vehicles subject to the parts marking requirements, or (3) foregone premium increases for such vehicles.

T. Insurance companies give credits or comprehensive discounts only for passenger cars equipped with theft deterrent devices.

U. Adequacy and Effectiveness of Laws and Tracking Systems. The adequacy and effectiveness goals are not being met.

1. Investigators say the standard has not been effective in reducing the number of cars stolen in order to remove parts for sale, but believe parts marking is useful in detecting and recovering stolen cars and parts.

2. Investigators want more enforcement resources.

V. Effects of Subjecting Other Vehicles to Parts Marking. Car thefts are climbing, recovery rates are steady, insurance premiums have not been reduced, and the objectives of the Theft Act have not been met.

1. If parts marking of "high theft" passenger cars is not successful in meeting any of the five criteria set by Congress for the major part of the theft industry (passenger cars), then parts marking of a minor part of the theft industry will not be cost beneficial either.

W. Since the whole report documents the failure of the current parts marking system to meet the goals of the Theft Act, this assessment must recommend against any possible extension of coverage to other classes of vehicles.

X. Other Pertinent and Reliable Information. The slight changes in passenger car theft rates for 1987 and 1988 (after parts marking was introduced) are not statistically significant.

Y. The Congressional requirement that the report cover a period of at least four years subsequent to the promulgation of the standard required by the title will not be met unless theft data for 1989 is included.

Z. The NHTSA proposal that a vehicle theft research program be developed to determine the effectiveness of the concept of parts marking is similar to proposals made by Chrysler Corporation in 1983 and 1984 to carry out an experimental parts marking program to determine effectiveness before a parts marking standard would be promulgated.

AA. Statements characterized as conjecture or speculation should be deleted before the report is prepared in its final form.

BB. Several errors in the appendix and discrepancies between number and statements given in the report and in the appendix should be corrected before the report is published.

CC. Conclusions. Parts-marking on "high theft" passenger is not successful.

DD. The significant costs to manufacturers and consumers is not yielding measurable benefits.

EE. Terminate the standard for all future motor vehicles.

90-15-N01-008 Jaguar Cars Inc

A. NHTSA states in the report that they are unable to prove that the parts labelling required by Part 541 - Theft Protection Standard, has achieved anything relative to the reduction of vehicle theft.

B. Jaguar Cars Inc. believes that with a transportable and dismantleable artifact, it is not possible to totally prevent theft and disposal.

C. The labelling of vehicle parts will do nothing to hinder the theft of vehicles, although it may possibly assist in securing convictions in certain 'chop shop'cases.

D. The permanent component marking (engraving, etching, stamping) preferred by some law enforcement agencies would impose massive difficulties on vehicle manufacturers that would outweigh law officers' convenience.

1. It is impractical to pre-assign parts to a particular vehicle.

2. It is extremely difficult to permanently mark a 17 digit VIN into 12 or 14 mostly painted parts of a finished vehicle.

3. Even if numbers could be permanently marked onto a finished painted car, it would destroy the rustproofing and surface appearance.

4. To mark permanently on or adjacent to the vehicle would require one or more additional work stations on the final assembly track which would have serious 'knock-on' effects throughout the final assembly process.

E. If labelling or marking is to be required, it should apply to all cars, not just those arbitrarily chosen as high theft lines.

F. Selection of high theft lines is seriously flawed because once a model is included on the list it is never removed.

1. Although no models of Jaguars have been proven statistically to be high theft vehicles in any year since the Act came into force, the Act does not allow Jaguar to discontinue the fitment of labels.

G. NHTSA should specify basic measures to hinder access to vehicles.

H. A joint Government/Insurance industry ranking system for theft resistance would stimulate improved security systems without requiring legislation.

I. Legislation tends to stifle innovation.

1. Legislation could produce similar, quickly learned, defeatable systems on all cars.

2. Healthy competition among vehicle manufacurers to introduce anti-theft systems would lead to different and superior systems which would force thieves to develop different techniques with varying degrees of success.

J. To be effective, anti-theft measures must be easy to 'set' or 'arm' whilst allowing only authorised persons to deactivate or disarm them.

1. A combination, such as a magnetic card and personal identification number, such as used in banks, may not be too difficult to apply to vehicles in the near future.

K. To obtain the best systems, insurance companies must allow significant discounts for the best antitheft systems.

1. Lower insurance premiums would encourage customers to purchase vehicles with the best systems, thus forcing manufacturers to improve the designs of poorer systems.

90-15-N01-009 Motor Vehicle Manufacturers Association

A. The MVMA supports meaningful initiatives toward the goal of reducing auto theft, and recognizes the need for total cooperation among vehicle manufacturers, the insurance industry, law enforcement, local/federal prosecutors, and judicial systems.

B. Based on NHTSA's statements that the effectiveness of the parts marking standard was not measurable, MVMA recommends terminating the theft prevention standard for all future motor vehicles.

C. The MVMA is willing to work actively with NHTSA and other interested parties on the common objective of reducing vehicle theft.

D. Other states should take a serious look at the Michigan Automobile Theft Prevention Authority which has contributed greatly to the decline of auto theft in Michigan over the last five years.

90-15-N01-010 Car Audio Specialists Association/Vehicle Security Association(CASA/VSA)

A. CASA/VSA is committed to reducing motor vehicle theft. Membership is comprised of manufacturers, distributors, sales representatives, retailers, and installers of mobile electronic products, including vehicle security, tracking and location systems.

B. Membership have been responsible for major state-of-the-art features emerging in the vehicle security industry which CASA/VSA estimates will reach sales of $418 million in 1990.Between 1989 and 1994 it is projected that growth rates will be 20 percent for passive arming systems and 14 percent for active arming systems.

C. CASA/VSA supports Federal and State efforts to gain insurance premium discounts for the installation of security systems. A federal mandate, rather than the state-by-state sporadic approach, would have far greater impact in promoting consumer purchases of vehicle security systems.

D. CASA/VSA urges that in the evaluation of the Theft Standard neither a federal design standard nor a mandate requiring automobile manufacturers to install standard equipment security systems be considered. Such an approach would exacerbate the mounting motor vehicle theft rate.

1. Diversity of products and technologies in the marketplace is an important element in reducing motor vehicle theft.

2. A design standard would result in a raft of homogeneous systems, easily defeated by thieves.

3. Similarly, factory-installed standard equipment would result in installations of like systems on entire car lineup of each auto manufacturer which thieves could defeat once they knew how to defeat the system on one car.

E. A Federal mandate for standard equipment would give car makers a virtual monopoly over the vehicle security industry.

1. Consumers would pay for this monopoly through technological stagnation and higher prices

2. Aftermarket companies, not car makers have been on leading edge of the technology.

3. Only in an open marketplace do consumers benefit from innovative product development.

F. Consumers have different security needs, depending on location, neighborhood, business area and type of motor vehicle owned. A diversity of products affords consumers the right to choose the product that best meets their personal and budget needs while also affording the greatest protection from motor vehicle theft.

90-15-NOI-011 County of Wayne, Michigan, Office of the Prosecuting Attorney

A. The Prosecutor's Auto Theft Unit has handled over a thousand cases of vehicle theft and fraud. Under Michigan statute the removal of labels provides probable cause to believe the part was stolen. Intact labels allow proof of possesion.

B. Parts marking labels are most helpful in cases of "retag". Persons changing labels often miss one or more of the labels.

C. Most cars the Theft Unit sees are not subject to parts marking. It is believed parts marking has discouraged theft and retagging.

D. Would like to see parts marking continued and expanded to include all vehicles. If discontiniued prosecution of auto theft cases will suffer.

90-15-NOI-012 Iowa State Patrol

A. Iowa State Patrol urges that the Theft Act be continued in its present form and for the current parts

B. Numbers should be placed in the same locations on all vehicles.

C. Random marking should not be considered. All vehicles should have the required markings.

D. It would be a great benefit if markings could be applied to pickups.

E. Iowa inspects vehicles placed on a salvage title for verification. If these numbers, on engines, transmissions and other parts were not be applied at the factory level, the identification of vehicles would be extremely difficult.

F. The Iowa State Patrol is of the opinion that at no time should the NHTSA seek to have the termination of the theft prevention standards on vehicles.

90-15-NOI-013 Ronald V. Clarke, Ph.D. and Patricia M. Harris, Ph.D

A. Clarke and Harris state that there is no reliable estimate of the extent to which chopping occurs. There are no base rate chopping victimization data for the period preceding the regulation with which post-implementation experiences can be compared.

B. Estimates of proportions of thefts for profit in the report are out of line with recovery rate. They should have been subjected to much more scrutiny.

C. The report acknowledges difficulties of measuring the effectiveness of the law. Two other problems not taken into account are:

1. It does not address the very important role of vehicle age in the chopping problem. Australian research has found that vehicles five years or older are at highest risk for body parts.

2. The evaluation is limited to nationwide data, when chopping is likely to be concentrated in some large cities. Much more useful would be to study the impact of marking in cities.

D. There are grounds for believing the theft standard fails to identify vehicles which are at highest risk for chopping.

1. Selecting 1987 and later year lines to be marked on the basis of 1983/1984 theft rates relative to the median theft rates of those years does not provide for an efficient method for predicting the vehicles of highest risk for any reason, much less for chopping.

2. The assumption that highest theft risk vehicles are the most vulnerable to theft for chopping is probably untenable. Analysis by Clarke and Harris indicate that carline-specific collision rates and theft rates are not very highly correlated.

E. A case could be argued that car lines with low recovery rates should be the ones selected for parts marking. It is surprising in the report that there was so little comment that recovery rates of marked carlines differed so little from those that were unmarked.

F. Parts marking is likely to have little value when there are too few auto theft investigators; labels can be removed or concealed and shipments not inspected. Future legislation might be better directed at these problems.

G. To randomly designate carlines to be marked does not provide for a sound study of effectiveness. A more appropriate design would consist of an interrupted time series analysis employing many more years of data.

H. Weight should be given to the opinion of law enforcement officials that marked parts are of considerable assistance in prosecuting auto thefts.

I. Recommend all carlines be marked. It is impossible to know which cars are at high risk of chopping and current policy runs the risk of displacing thefts onto unmarked cars.

J. Serious consideration should be given to retrospective parts marking of the entire fleet on the road considering the costs of auto thefts and the modest cost of marking.

K. Future evaluative efforts should be complemented by a program of rigorous research into the nature of the auto theft problem.

90-15-NO1-014 National Automobile Theft Bureau, Inc.

A. The inconclusive nature of the report was forseeable at the time that the law was enacted. Only 1987 and 1988 data were available which contained marked carlines comprising only 2 percent and 5 percent of the two respective vehicle populations for those calendar years.

B. Given the low percent of marked carlines in which to measure the effectiveness of parts marking, the NATB recommends that the standard be continued and that a subsequent study of the standard be conducted based on a minimum of five years of theft data (MYH 1987 - 1991, CY 1987 - 1991).

C. The agency's evaluation process did not properly consider:

1. Da[illegible] differences between marked carlines that were new models in 19[illegible] and 1988 and those that were continuations of prior models.

2. The fact that there are high theft lines that are not marked as well as low theft lines that are marked.

3. That some car lines are voluntarily marked.

D. The NHTSA analysis should have included comparison of theft rates and recovery rates for marked and unmarked high-theft vehicles and marked and unmarked low theft vehicles and antitheft device equipped high-theft vs marked high-theft vehicles, etc.

E. The estimate of economic loss at $5.4 billion is low, the UCR for 1989 estimates the loss of $8 billion.

F. The preliminary report uses average stolen vehicle values in the $5,000 range rather than the current price of medium size vehicles selling in the $10,000 to $15,000 range.

G. The reference to a cost of $4.14 per car in the report does not say if the cost of stamping engines and transmissions are included. If labels cost 12 cents each, the cost per car would be only $2.44.

H. The report does not indicate other benefits to consumers and dealers of parts marking to help improve proper servicing and replacement of parts. The VIN marked parts can be used for inventory control purposes, and assure that part is not stolen. Lack of a label can signal a stolen part.

I. Since there were no marked cars before 1987 how can there be pre-existing trends for theft rates of marked and unmarked carlines?

J. The report does not discuss interchangeability of parts of low theft and exempted models with high theft models.

K. There is a reference to using the FBI's NCIC data in a paragraph that discusses possible motives for stealing vehicles. NCIC data cannot be used for this purpose.

L. The NCIC data does not fully represent the total number of thefts and the distribution by vehicle type is different from UCR data.

M. The $5.4 billion economic cost of vehicle theft in the report does not include lost income, added transportation costs, cost of new vehicle above insurance payment, cost of uninsured vehicles, and court and law enforcement costs.

N. NATB says the report's abbreviated statement as to the purpose of the Theft Act focuses on parts identification rather than whole vehicle theft deterrance and prevention.

O. NATB says that it is difficult to identify engines and transmissions where a VIN derivative is not used and recommends this be done and in a standard location.

P. NATB says that actual 1987 model year production resulted in 67 marked carlines.

Q. The report should not dwell on motives or make estimates since this is speculative as the Act recognizes that there are various motives for vehicle theft.

R. Missing motives are stripping and VIN switching.

S. Any attempt to use NCIC data for recoveries should be done cautiously.

T. NCIC data on thefts and clearances is the responsibility of the entering agency. NCIC has fewer vehicle thefts than UCR partly because of same day recovery.

U. Thefts and recoveries should be for the same calendar year.

V. The report should have considered NCIC validation procedures - remove invalid records that could be misconstrued as recoveries.

W. Theft rates should have been developed using production data as is done for the NHTSA annual report of theft data. A number of unregistered vehicles are exposed to theft.

X. The NCIC and NATB data [as analyzed by NATB] indicate that marked carlines have a more favorable theft rate than unmarked carlines with exempted carlines doing even better.

Y. Using NCIC terminology there is no procedure to indicate a vehicle recovery only a cancel, locate, or clear. Sometimes located vehicles are not recovered (foreign country or embezzeled vehicles innocently purchased).

Z. The description of NATB is not accurate. NATB does not maintain computerized records on state registration information nor does it compare registration applications with stolen vehicle and salvage records - this may be done on a special basis. The NATB matches reports of stolen vehicles with recovery reports.

AA. The report shows the costs to consumers for parts marking, but not the cost to manufacturers.

BB. On page 16, although a range of 1,000 to 3,000 units is shown in Appendix 1, only the upper limit of 3,000 is reflected in the report.

CC. Covered lines under the standard are not average cars so the $5,000 per car figure used for marked cars is low.

DD. The NATB questions terms such as "marked vehicles" and "new in the respective calendar year".

EE. The NATB has not been able to relate vehicle recovery condition in the report to any data in the appendix. There is a significant volume of information on this subject reported under the Insurance Reporting provision of the law which was not used in the five-year report.

FF. The NATB recommends parts marking be more permanent and in easily accessible locations.

GG. NATB recommends parts marking be extended to light trucks, vans, multipurpose vehicles and motorcycles (also boat trailers, farm and construction equipment).

HH. The NATB recommends that additional parts be marked including radios, seats and T-tops.

II. NATB recommends that the definition of "Identification Number" is overly restrictive. Any number affixed to a vehicle by the manufacturer should be covered for the purpose of the Act's provisions.

90-15-N01-015 Toyota Motor Corporate Services of North America, Inc.

A. There is insufficient data upon which to draw conclusions on the effectiveness of parts marking.

   1. NHTSA should carry out further study to quantitatively assess the effects of parts marking on vehicle theft rates.

B. A discontinued model should not be included in the list of vehicles subject to Part 541 indefinitely.

   1. Models whose production had been discontinued before the effective date of the parts marking requirements should be deleted.

   2. All discontinued models should be deleted from the list after some reasonable period of time.

   3. Failure to delete discontinued models will result in a long consfusing and misleading list.

C. The applicable model years should be added to the title of the list (e.g., "High Theft Lines - Model Years 1987 to 1990") to reduce the confusion created by listing as "high theft" vehicles not in production that model year.

D. If the theft rate of a "high theft" car line falls below the median theft rate for a to-be-determined period of time and is projected to so remain, the vehicle's classification as "high theft" should be reversed.

E. If the theft rate for a previously determined low theft line rises above the median, NHTSA should not require such model line to be marked in accordance with Part 541 without affording reasonable lead time.

F. A more complete study is needed to assess the effect of parts marking on vehicle theft.

1. Data should be collected on the various motives behind vehicle theft -- the sale of the entire vehicle and vehicle parts, or the use of the vehicle (e.g., for "joy rides," in the commission of other crimes.)

2. Market image, price, number of vehicles sold, and the number of years since introduction ("theft appeal,") should be factored into any study of the effectiveness of parts marking by vehicle model.

3. The study should cover a vehicle's full model cycle since chop shop operations have a diminishing need for parts from a vehicle that has undergone a model change.

90-15-NO1-016 National Automobile Dealers Association

A. NADA dealers routinely fall victim to automobile theft. Dealers may from time to time unknowingly purchase stolen used vehicles.

B. NADA submits that in several instances the report is less than thorough, and strongly urges NHTSA to review its 1985 Regulatory Evaluation to compare current information with that available when the standard was first promulgated.

C. In the discussion of "Thefts and Recoveries," NHTSA should:

1. Indicate the limited nature of the data.

2. Stress the reduction of projected theft rates which would have been experienced without the standard.

3. Consider insurance data as required by Congress.

4. Present theft data on a disaggregated basis as required by Congress.

D. NADA believes the antitheft evaluation should be greatly expanded to include cost benefits, deterrence vs. recovery benefits, and each by vehicle class, model, make, and line.

E. NHTSA should consider including anecdotal information on prosecution and vehicle recovery.

F. NHTSA should, in the report, discuss marking requirements for replacement parts, and should evaluate the standard's impact on directly imported vehicles.

G. NHTSA should more thoroughly examine the extent to which the standard should be improved or expanded to include other classes of vehicles. Other means of parts marking, improvements to program administration and enforcement should be considered.

H. NADA urges NHTSA to allow for the opportunity to comment on a "draft final report" prior to making a final submission to Congress.

90-15-NOI-017 National Association of Independent Insurers

A. NAII joins the law enforcement community in supporting the continuation of the auto components parts marking program and recommends it be improved and expanded.

B. Congress weakened the bill so that only high theft car lines would be marked and it added new, costly and unnnecessary insurance reporting requirements.

C. The latest HLDI report has determined that marking of vehicle parts may have reduced the incidence of thefts.

D. NAII believes the required labeling should be expanded to all vehicles.

E. NAII believes NHTSA should broaden the scope of its interpretation of the Congressional intent by recognizing that parts marking is just one of several countermeasures adopted to combat this problem.

90-15-NOI-018 The Jefferson Group

A. The Working Group to Reduce Auto Theft believes that some corrections and numerous clarifications are required in order to provide the Congress with more coherent study findings.

B. The Group recommends that the program of motor vehicle theft reduction be upgraded and improved.

C. Congress should expand the parts marking program up to and including the marking of major parts for all motor vehicles and additional components subject to theft for profit.

D. NHTSA should encourage development of an even more secure marking process.

E. NHTSA should review state titling, registration, transfer and other procedures and propose remedies to promote greater uniformity.

90-15-N01-019 Ford Motor Company

A. Ford commends the agency for its efforts in gathering and developing the parts marking theft report for Congress and knows that auto theft is a very complex subject with many variables.

B. Congress should terminate the theft prevention standard for all future vehicles.

C. Ford originally supported the concept of parts marking, hoping it would reduce theft and comprehensive insurance rates.

1. From 1980 until the 1987 effective date of the Theft Prevention Standard, Ford voluntarily identified certain component parts of the Town Car and Mark VI; in 1982 Ford added the Continental.

2. Law enforcement and insurance company representatives had indicated their beliefs that additional parts marking would reduce vehicle thefts.

3. Ford informed law enforcement agencies, motor vehicle administrators, and insurance industry officials of its parts marking program.

D. Theft data available from the NCIC did not indicate a reduction in the theft rates of the identified vehicles.

E. No information could be obtained on any reduction of the comprehensive insurance premium costs on the Town Car, Mark VII, or Continental.

F. Data available to NHTSA on a much broader scale does not indicate more success in measuring the effectiveness of component identification than Ford had with its voluntary program.

1. The direct effect of parts marking is not measurable.

2. That comprehensive insurance rates were not measurably lowered after parts were marked suggests that the insurance industry did not find it effective in reducing vehicle thefts.

G. The theft prevention standard should be terminated for all future vehicles.

1. At best, parts marking could be effective in only 10 to 16 percent of vehicle thefts.

2. There was no difference between the expected insurance cost trends for marked and unmarked cars.

3. Comprehensive insurance costs have not been reduced, and a reduction in premiums is unlikely.

4. The number of thieves convicted because of the parts marking standard cannot be identified.

5. Auto theft investigators indicate that the parts marking standard has not been effective in reducing the number of car thefts for parts.

6. Auto theft investigators believe parts marking will improve the chances of successfully prosecuting offenders, but will not deter auto thefts.

7. The large volume of auto thefts and low number of police investigators available to routinely monitor body shops, salvage yards, wrecking yards, or automobile dealers, explain the low arrest and conviction rates.

8. The consumer pays at least $15.4 million annually for parts marking and receives at best marginal, if any, benefit.

9. There is no data to support the idea that component identification will change the fact that vehicle theft is a low criminal justice system priority (3,000 auto theft investigators out of 500,000 law enforcement officers.)

10. The theft rate of Ford Motor Company vehicles with marked parts increased while the theft rate of unmarked cars remained relatively stable.

H. Vehicle manufacturers should build into their vehicles a reasonable level of standard anti-theft features and provide assistance to auto theft investigators.

1. Ford provides a "secondary" means of vehicle identification beyond the requirements specified in FMVSS 115 and Part 565 on all its vehicles.

I. Theft reduction cannot be the sole responsibility of the vehicle manufacturer.

J. Vehicle theft control might better be achieved through efforts such as those undertaken by the Michigan Automobile Theft Prevention Authority.

1. Vehicle thefts have declined 16.9% in Michigan over the past five years.

2. Comprehensive insurance rates are down or unchanged in Michigan.

3. Copies of two issues of the APTA newsletter and an editorial from The Detroit News are attached.

K. In summary, Ford believes the agency should recommend that Congress terminate the theft prevention standard for all future vehicles.

1. Ford tried the parts marking concept as a vehicle theft reduction measure, and found the concept flawed.

2. The agency's report also suggests the parts marking concept is flawed.

90-15-NO1-020 Highway Loss Data Institute

A. HLDI questions the 17 percent average rise in loss payments for marked cars between 1987 and 1988 shown in the report as compared to the 6 percent decrease in average loss payments for unmarked cars for the same time period.

B. HLDI notes that their Insurance Special Report A-31 showed declines in theft claim frequencies for both marked and unmarked cars from 1986 to 1987 and then to 1988 with marked cars experiencing a greater decline in claim frequencies.

C. HLDI's report showed that theft claim payments for 1987 carlines increased dramatically while theft claim payments for 1987 unmarked cars decreased. For 1988 models both groups had increasing loss payments reltive to 1986 but with the marked car increase being greater.

D. Combining claim frequecy with claim amount, HLDI computed the average loss payment per insured vehicle year [called expected cost in the NHTSA Report]. HLDI results showed marked car lines experienced larger declines than did unmarked cars from 1986 to 1987 and 1988.

E. During 1987 and 1988, as compared to 1986, the theft claim frequencies for marked cars decline for claims below $10,000 and were unchanged for claims over $10,000. For unmarked cars, claims between $2,000 and $10,000 declined, but the frequency of large claims increased dramatically.

F. HLDI concludes that their study suggests that parts marking may have reduced the incidence of thefts of marked carlines.

90-15-NO1-021 Southfield Auto Theft Prevention Squad

A. Since enactment of the Theft Act the Squad has been able to achieve a significant increase in arrests and stolen vehicle recoveries by utilizing the VIN markings, which are often overlooked by car thieves.

B. The Squad feels the expansion/continuance is mandatory in aiding all law enforcement agencies in combating the auto theft problem.

90-15-NOI-022 Houston Police Department

A. The Auto Theft Division feels that it would be a tremendous aid if radios and t-tops be marked since 55 percent of recovered vehicles in Houston are stripped of accessory parts.

B. In Houston new pickup trucks have the highest theft rate and the lowest recovery rate.

C. The Division strongly recommends continuing the NHTSA labeling program, and to see the program extended to more passenger car lines, parts, and specifically light trucks.

90-15-NOI-023 Michigan Anti-Car Theft Campaign Committee

A. The Committee believes that the provisions of the Theft Act have helped lower auto theft in Michigan and that parts labeling is very valuable to both law enforcement and insurance company personnel.

B. The Committee recommends expansion of labeling and improvement in the type of labels used. Parts marking aspects of the Theft Law should be continued.

90-15-NOI-024 Boston Police Department

A. The Auto Theft Unit states that the Theft Law, which requires VIN marking, is a useful tool for law enforcement to combat auto theft. It assists in the recovery of stolen parts, which leads to the recovery of whole vehicles.

B. The Theft Act makes it a little harder to "fence" stolen parts. No device, law or rule will in itself drastically cut theft rates and the chances of being caught with stolen parts, and going to jail are slim.

C. Although investigator resources are minute and drug and assault crimes deserve the larger proportion of resources, the annual theft of more than one million motor vehicles cannot be ignored. Any positive step towards detering motor vehicle theft is welcome.

90-15-NOI-025 Department of California Highway Patrol

A. The CHP believes the Theft Act has been a useful and effective tool to reduce vehicle theft. The following are suggested for consideration:

1. Extend the marking requirement to obtain a useable database sampling.

2. Extend the marking to all passenger cars, light trucks, vans, and MPVs.

3. Eliminate the exemption for anti-theft devices.

4. Require all labeling to be either stamped, etched or engraved.

90-15-NO1-026 American Association of Motor Vehicle Administrators

A. AAMVA believes the study period for the theft standard was too short and recommends it be extended indefinitely to allow development of a statistical base.

B. Due to the way data are reported the effect of parts making cannot be traced. It is recommended a standardized reporting format be developed which will indicate at the time of theft if the vehicle was marked.

C. All passenger vehicles, light trucks, vans, and MPVs should be marked.

D. Recommend all component part markings be stamped, etched or engraved into the vehicle metal.

90-15-NO1-027 The Hertz Corporation

A. Hertz believes the report should focus to some degree on motor vehicles stolen in the U.S. and exported. Exportation is a major problem.

B. Hertz states that there are insufficient data on thefts for export, the problem should be examined in more detail and Congress should be made aware of the need for more law enforcement efforts.

C. Hertz believes that Customs regulations, promulgated in 1989, do not address the problems faced by the car rental industry along the Southwestern border, particularly in El Paso.

D. Hertz understands organized car thieves pay teenage boys to steal cars and drive them back into Mexico. U.S. Customs do not maintain a regular checkpoint and Mexican officials do not cooperate to prevent stolen cars from entering Mexico. The cars are generally not recovered.

E. Hertz recommends that the final report discuss the car rental industry theft problem in the Southwest, and that Customs be provided with sufficient resources to establish more ad hoc checkpoints.

90-15-NO1-028 AAA Michigan

A. AAA Michigan states that Michigan's experience indicates multiple activities are necessary to reduce vehicle theft; parts marking is an integral element. Present programs have resulted in a 16.6 percent reduction of motor vehicle thefts statewide.

B. Parts marking has provided demonstrative evidence for the prosecution of persons possessing or selling stolen parts. Expansion to include all passenger vehicles and light trucks would maximize the risk to thieves. Improvements,(i.e.; stamping, etching) would greatly strengthen the existing program.

C. Michigan's experience with multiple anti-theft programs has reduced theft premiums an average of $35.00 in the last four years.

D. AAA Michigan believe the existing legislation should continue a minimum of three more years to determine a five-year impact on total theft, and strongly support the expansion of the program and continuation under the Theft Act.

90-15-NO1-029 General Motors Corporation

A. Auto theft is a serious and costly problem that needs to be addressed on several fronts, and General Motors remains committed to working actively with the NHTSA, insurance industry, law enforcement, legislators, the judicial system, and other vehicle manufacturers toward reducing auto theft.

B. The Theft Act requires the Department of Transportation to make one of the following recommendations to Congress, based on its analysis of the effectiveness of the Theft Prevention Standard: continue the theft prevention standard without change; modify the statute to cover more or fewer passenger car lines; modify the statute to cover other types of motor vehicles; or terminate the theft prevention standard for all future motor vehilces.

C. GM recommends terminating the Theft Prevention Standard because the available data cannot prove the effectiveness of the Theft Act or the Theft Prevention Standard.

D. Statutory action would be required to allow NHTSA to evaluate the Theft Prevention Standard more definitively by randomly applying parts marking to high and low theft passenger car lines or light trucks.

E. GM opposes approaches which would expand an ineffective measure to additional product lines.

1. Substantial consumer costs would be incurred if random marking of cars or light trucks was required because the additional costs to auto manufacturers of capital equipment and the reallocation of resources would be included in the cost of the product.

2. Additional expenses should not be incurred when there is no demonstratable benefit to the customer.

F. The use of exemptions or after-market theft deterrent products may continue to confound an accurate analysis of effectiveness.

G. GM is impressed by the effectiveness of Michigan's Automobile Theft Prevention Authority (ATPA) established in 1986, which has lowered Michigan's theft rate by 10.5 %.

1. Cooperative programs and grants to organizations involved with fighting auto theft are funded by a $1 charge assessed on each insured automobile in the state.

2. The more than $5,000,000 generated by this program are given to law enforcement agencies, prosecutors, judicial agencies, and non-profit organizations in order to train staff and implement theft prevention programs.

H. As few law enforcement resources are dedicated to fighting auto theft crime, it is imperative to mobilize other activities to assist where law enforcement cannot provide sufficient resources.

I. ATPA has reduced auto theft rates while the national average has soared by over 30 percent.

1. Michigan had the highest theft rates in the country in 1984; today it ranks ninth.

J. Funding for efforts such as ATPA at the national or state level may be valuable in the fight against auto theft.

K. A copy of the annual report is attached.

L. GM disagrees with the statement, "The changes in theft rates of cars equipped with anti-theft devices are no different from cars containing marked parts."

1. The theft rate of GM's 1986 Chevrolet Corvette, equipped with the anti-theft device PASS-KEY (VATS), decreased by 33 percent within one year.

2. PASS-KEY was made standard on Camaros and Firebirds in 1989; theft rates were reduced by almost two-thirds in that year.

M. GM plans to make the PASS-KEY system standard equipment on 3,000,000 passenger cars by 1995.

90-15-NO1-030 Avis

A. Avis recommends that the program of motor vehicle theft reduction be upgraded and improved. VIN markings assist Federal, state, and local law enforcement, insurance investigations and vehicle documentation.

B. Congress should be encouraged to expand the coverage to include the marking of all motor vehicles, along with marking of additional components subject to theft for profit. NHTSA should encourage development of an even more secure marking process.

C. Avis supports progress toward more uniformity in state laws on titling, registration, transfer and other documentation requirements. NHTSA should take the initiative by reviewing state procedures and proposing remedies for greater uniformity.

90-15-NO1-031 U.S. Customs Service

A. Customs has reviewed the report. All facts, figures and comments pertaining to the Customs Service are true and accurate.

B. Customs is interested in materials which would aid Customs inspectors in the identification and location of VINs on designated high-theft vehicle parts to quickly identify stolen parts during examination of export shipments.

C. Customs endorses Florida's DMV efforts who perform NCIC stolen vehicle checks and require the original title to be surrendered prior to a vehicle's export. Other states are urged to adopt similar measures.

90-15-NO1-032 New York State Police

A. The New York State Police take no exception with the material presented in the report.

B. The New York State Police request the continuance of the parts marking system since it aids and assists the law enforcement community.

90-15-NOI-033 Iowa Department of Transportation; Motor Vehicle Enforcement

A. Mylar stickers on vehicle parts benefit law enforcement and enhance prevention of vehicle theft. The practice should continue and should be extended to ALL vehicles.

B. The Department's motor vehicle inspectors state that stickers play a big part in the inspection of salvage vehicles and assist in the identification of the whole vehicle.

90-15-NOI-034 City of Des Moines Police Department

A. The Department joins with the Iowa State Patrol in urging that the Theft Act be continued in its present context.

B. Any change that would reduce or eliminate the need to uniquely identify motor vehicle parts will only contribute to the auto theft problem.

C. While parts marking is burdensome and attaches some cost to manufacturers, failure to mark would also be costly to owners and insurance companies. Without parts identification and tracing criminals would become bolder.

90-15-NOI-035 U.S. Department of Justice

A. The Department of Justice encloses comments on various sections of the report. In general the Department found little fault with the parts of Appendix 1, but did find numerous places in the report itself for which clarifications and/or corrections are suggested.

B. Executive Summary: Should reflect that one of the Theft Act's purposes was to permit tracing and recovery of the entire vehicle, not just its parts. One fault running through the report is the failure to recognize the "salvage switch" as one main economic motive for vehicle theft.

C. Motives and the Market: Including "salvage switch" within "insurance fraud" is incorrect since both the vehicle owner and the insurance company are victims of the theft.

D. Thefts and Recoveries:

1. The procedure for calculating recovery rates should be clarified.

2. It would be more valuable to break "unmarked cars" into high theft and low theft categories because the standard does not cover all high theft line.

3. Define the term "pre-existing trends".

4. Believe that there is no "ideal" approach for evaluating the effect of parts marking, but agree with NHTSA that a more rational approach could be devised.

5. The description of how parts marking was statistically analyzed and the conclusions drawn from that analysis are unclear.

6. The report should address the value and condition of the recovered property at the time of recovery. If it does not, statistics on recovery are very misleading.

E. Anti-Theft Devices: Another reason why cars equipped with anti-theft devices have lower recovery rates is that their parts are not marked.

F. The Cost of Marking Parts:

1. The requirements for marking new replacement parts should be described.

2. The figure of $5000 for an unrecovered marked car is far too low. Marked cars tend to be at the upper price range, and costs should be amortized over the life span of the vehicle.

3. Average theft claim payments for marked and unmarked cars should be compared to their respective average values as this might reflect the trend whether more or less of each vehicle was being found when a marked vehicle was "recovered".

4. The minimizing of motorcycle theft overlooks the lower recovery rate, as well as the fact that motorcycles have a much higher theft rate. It is agreed, however, that current parts marking requirements would have to be modified to deal with motorcycles and certain other currently unmarked vehicles.

<u>90-15-NO1-036 American Car Rental Association; Collier, Shannon & Scott</u>

A. ACRA urges NHTSA to support continuation and expansion of the parts marking program, and address more fully remedial measures for the prevention of the export of stolen vehicles.

B. ACRA members have found that VIN markings on major parts of high theft line passenger cars have assisted in vehicle recovery and identification for prosecution.

C. ACRA states that the program requires a longer period of implementation. Data only on the two model years covered by the report is insufficient. The report should address other aspects of auto theft as covered in the Theft Act.

D. ACRA urges NHTSA to support a greater dedication of U.S. Customs resources to the problem of exported stolen vehicles.

90-15-NOI-037 American Automobile Association

A. AAA continues to believe that marking vehicle component parts with a VIN is a useful tool for vehicle and component identification; it also provides valuable assistance in law enforcement and vehicle documentation.

B. AAA draws NHTSA's attention to comments filed by the Auto Club of Michigan regarding the dramatic reduction of auto thefts in Michigan.

C. AAA believes other efforts such as uniformity in state laws on titling, registration, transfer and other documentation would help curb auto theft fraud.

D. AAA believes NHTSA should not only recommend extension, but also expansion of the parts-marking program.

90-15-NOI-038 State Farm Insurance Companies

A. State Farm does not agree that the phenomena called regression to the mean is affecting pre-standard theft rates, but says an adjustment for pre-existing trends is needed regardless of what it is called.

B. It seems that theft rates were calculated by summing theft counts and registration counts of 1987 CMY, 1988 CMY and 1988 one year old carlines (this is the most common way to develop overall rates from frequency counts).

C. The common way to develop overall rates can be misleading if there are large differences in rates of individual groups.

D. The statistical test is appropriate but only considers thefts and not registrations.

E. The pre-1987 trend of 9.8 percent is considered fixed while the post-1987 effectiveness figure is appropriately tested as an estimate requiring confidence boundaries.

F. The adjustment for the pre-existing trend should be carried out by subtracting natural logs rather than a straight subtraction.

G. There is no way of telling from the analyses whether a significant effect would indicate a decline in thefts of marked cars or an increase in the theft of unmarked cars. It would simply seem that it is too early to judge the effect of marking.

H. Vehicles with design changes should be analyzed separately from those without changes since their theft rates may be different.

I. There is indirect evidence in the report suggesting that thieves are stealing unmarked vehicles rather than marked vehicles.

J. The recent popularity of light trucks and their increasing theft rates lends support for marking these vehicles.

K. Movement toward thefts of unmarked cars and light trucks suggest that all vehicles should be marked.

L. NHTSA should expand their effort to obtain more law enforcement case studies documenting how VIN labelling has been useful in detection, recovery and prosecution.

M. Law enforcement authorities need more time for education and experience with the use of parts marking for vehicle recoveries.

N. State Farm's experience with more permanent visible marking methods (etching glass and sheet metal) suggests that theft propensity is related to the ease that markings can be removed or altered.

O. State Farm feels NHTSA is too liberal in allowing antitheft device exemptions.

P. Because professional thieves who steal cars for parts will find ways to defeat antitheft devices, these systems should not be an alternative to parts marking according to State Farm.

90-15-NO1-039 Volkswagen of America, Inc.

A. VW states that the conclusions of the Preliminary Report suggest that the requirements for parts marking be dropped for the lack of cost benefit.

B. Evaluation of Parts Marking Effect:

1. Law enforcement agencies continue to advocate parts marking - they claim it helps in the investigation and prosecution of theft cases.

2. NHTSA has apparently been unable to reach statistically significant conclusions on the effect of parts marking.

3. The HLDI Special Report A-31 does reach a number of conclusions but in combination they do not provide any justification for the parts marking regulation.

4. It appears the insurance industry has not been able to reliably correlate parts marking with theft frequency.

5. Some insurance companies provide incentives for glass etching. Car owners of high theft cars or in high risk urban areas who participate might benefit. The economic cost of such programs would clearly be less than the cost currently imposed on manufacturers.

6. Parts marking is not likely to deter thefts for export unless the country of destination inspects vehicles or they are identified as stolen prior to export.

7. Other than anecdotes, the report contains no information on the relationship of parts marking to the deterrence or prosecution of complete vehicle thefts.

8. In almost all instances, some evidence other than parts marking would be available to identify a car as stolen.

B. VW believes that insurance company incentive programs and market considerations affecting automobile manufacturers will promote theft deterrent measures and that the nationally applied parts marking program is a misdirected and inefficient allocation of resources.

C. Costs of Compliance:

1. VW now has to mark the Cabriolet and Corrado. Marking costs, excluding the engine and transmission are $13.36 for labor and $2.41 for labels, a total of $15.77.

2. Replacement parts are labeled manually at a cost of $1.32 per label, not including labor.

3. VW urges NHTSA to obtain actual costs from manufacturers and include them in the report to Congress.

D. VW urges the NHTSA to recommend to Congress that the parts marking requirement be eliminated. Such a step would also reduce the burden on the NHTSA and would enable it to devote its resources to more cost beneficial activities.

90-15-NO1-040 Mercedes-Benz Of North America, Inc.

A. Mercedes-Benz calls the Agency's attention to the need to compensate for the effects of automobile redesigns and new model introductions in the analysis of the report

B. Mercedes-Benz has found no evidence in its analyses that anti-theft labels are or can be effective in decreasing theft rates.

C. Regarding model redesigns and new model introductions:

1. Internal data analyses indicate redesigned car models drop an average of 22 percent in their initial year of availability.

2. Newly introduced models also show a theft rate depression in their initial year.

3. Theft rates of both increase and regain "normal" levels in roughly 2 and 1/2 years. Because of their large confounding effect the theft rate depressions should be accounted for.

4. The above effect differs from the vehicle age effect analyzed by the Agency.

D. The inability to classify thefts according to motive is a significant handicap; a large reduction in profit type thefts could be obscured by a large increase in joy ride type thefts.

E. If reasons for why theft rates declined or increased could be understood and correlated with a particular motive, that motive's share of all thefts could then be determined

F. One reason for the decrease in theft rates of newly introduced/redesigned automobiles could be that new cars are supplied with OEM replacement parts.

G. Analyses of data provided in Table G-4 of the report and detailed supporting data, indicates that in 1986, when more models were newly introduced/redesigned than in 1987 or 1988, the ratio of in-part recoveries to other recoveries was higher than in 1987 or 1988. This is opposite of what would be expected if chop shops were responsible for theft rate reductions of such models.

1. These results may not be correct; more in-part data prior to 1987 are needed.

H. Another reason for the decrease in theft rates of newly introduced/redesigned cars could be that thieves need time to learn and become proficient in new methods required to steal these cars.

I. Mercedes-Benz has always marked radios with serial numbers traceable to the VIN. This has not influenced their theft in any way.

J. Discounting 1988 thefts rates, Mercedes-Benz cars have continually decreased in the 1980's. Analysis suggests this is not due to ant-theft labels, but rather to continuous engineering improvements.

K. Mercedes-Benz urges the Agency to investigate the effects of model redesigns and new model introductions on theft rates.

L. Mercedes-Benz has no evidence to suggest that extending or making the parts markings more permanent would reduce or deter vehicle thefts. Only anti-theft measures such as alarms and improvements to locks, etc., have any measure of success.

Discussion of Docket Comments

Docket No. 90-15, Notice 1

Theft and Recovery Data Systems

Several commenters discussed the collection, compilation and dissemination of theft and recovery data. Chrysler, and NADA said that theft and recovery data should be presented by model, make and line for each vehicle class as required by Congress in the Act. Chrysler was concerned that the report did not contain suggestions for improving currently available theft and recovery information. The AAMVA suggested a standard reporting procedure to indicate at the time of the theft whether the stolen vehicle was marked. The NATB said that the theft data in the report, which was based on the FBI's National Crime Information Center records, did not include all motor vehicle thefts because of same day recoveries. Chrysler commented that no data prior to 1984 was used in the report, nor was data for 1989, even though NHTSA had been furnished with 1989 NCIC data in January of 1990.

The NATB, IAATI, and Justice Department all commented on recovery information. NATB was concerned that the use of NCIC data might overstate recoveries since there are three ways by which it is possible to remove a reported vehicle theft as an active record: by cancelling the report, locating the vehicle, or clearing the record. A "located" vehicle may not always be recovered - for example, if the stolen vehicle is found in another country and not returned to the owner, or if a person unknowingly buys a stolen car.

NATB also pointed out that NCIC has a validation program under which theft records can be removed from the data base when they do not meet certain data quality standards. Such record removals could mistakenly be counted as recovered vehicles according to NATB. Both IAATI and NATB stated that vehicle recovery data submitted to the agency under the insurance reporting requirements were not used in the preliminary report. Finally, the Justice Department noted that the value, as well as the condition, of recovered vehicles should have been included in the report.

All of the issues that the commenters mentioned were considered prior to the preparation of the preliminary report. The National Crime Information Center data were used as the prime source since they included the VIN. It was the only way to identify and match vehicle thefts with registration data. Only five years (1984-1988) of NCIC data were available for analysis for individual vehicle theft records. All earlier years' data had been discarded under the NCIC's three year retention policy. While 1989 theft data were available in January 1990, the necessary theft rate calculations could not be done because 1989 registration data are not ready till very late in the following year, too late for inclusion in the final report.

The potential shortcomings of the NCIC data for developing recovery rates which were mentioned by NATB were taken into account in the analyses used for this report and are discussed in detail in Part A (pp A-12 through A-16) of Appendix 1.

The NCIC data were sent by the FBI to NHTSA as total year tapes in which invalid records had been completely removed. As explained in Section A of the Appendix, the NCIC data were further screened to remove duplicate VIN's which might occur if a vehicle is reported more than once. Duplicate VIN's represented about two to three percent of the records in 1984 and 1985 but have been declining since then. Each NCIC record of a stolen vehicle was matched with registration data from R. L. Polk using the vehicle's VIN. This further eliminated the possibility of using NCIC

records with inaccurate VIN's. While there exists a small chance of a few inaccurate records in the NCIC data, this would equally affect cars with and without marked parts.

Because of the possibility of overestimation of recoveries caused by local officials incorrectly clearing theft records, recovery estimates based on the NCIC data were compared with recovery estimates from the sample insurance data. The recovery rates from both data sources were essentially the same. Since NCIC data do not contain information on the condition of recovered passenger cars, insurance claim data from a sample of seven insurance companies were analyzed. As with the NCIC data the insurance claim records included the VIN for each stolen vehicle. Theft claim records were matched with recovery records of vehicle condition using VIN's. This also allowed the data to be grouped into marked, unmarked, and "exempted for antitheft device", categories. The insurance reporting information supplied to the agency by insurance companies includes information on insurance premium rates and rate making which was effectively used as described in Part G of Appendix 1.

Detail statistics by make, model and line are available, but to present data so disaggregated would unnecessarily clutter the report with page upon page of lengthy tables.

Each data collection system, be it for a quick-access auto theft registry used by law enforcement agencies, or by insurance organizations to track trends is set up to serve unique needs. It is the agency's view that changes to collection, compilation and dissemination of data follow changing needs of primary users.

Theft Motives

Several commenters (IAATI, NATB, and the Justice Department) noted the absence of a key motive for theft known as "salvage switch," "VIN switch," or "retagging," whereby a stolen vehicle's VIN is replaced by a VIN from a legally salvaged vehicle and then sold to an unsuspecting customer.

The issue of retagging was discussed in Parts CD and H of Appendix I. However, NHTSA has revisited the subject of motives for theft and incorporated retagging fraud into its estimates of thefts-for-profit in the revised version of the report.

One commenter noted that the report did not address the stripping of components such as radios, seats, t-tops, and wheels from stolen vehicles. The problem is discussed briefly in the report in conjunction with the adequacy of tracking systems for theft investigators in Part H of Appendix 1. No estimate on the extent of this motive was available. Some of the investigators thought it was displacing chop shopping, others thought it was the "last act" in joyriding.

Statistical Interpretation of Theft Data

Seven comments were received on the statistical interpretation of theft data (Allstate, 3M, IAATI, NADA, HLDI, VW of America, and State Farm Insurance Companies). Allstate performed their own analysis using linear regression of the pre-standard theft rate data to make projections of what the 1987 and 1988 theft rates would have been if those trends continued. Allstate concluded that the actual theft rates of new marked vehicles in 1987 and 1988 were lower than expected. Both 3M and IAATI felt that the raw theft numbers and theft rates for marked carlines were decreasing and that this meant the theft prevention standard was working.

HLDI referred to their Special Insurance Report A-31 which shows that insurance claim frequencies of marked cars were declining more rapidly than for unmarked cars and that the increase in claim payments for marked carlines was lower than that for unmarked carlines. The net result, according to HLDI, is a more favorable result for marked carlines. HLDI concludes that parts marking may have reduced the incidence of thefts of marked carlines.

State Farm, 3M and NADA discussed the adjustment the agency made for pre-existing trends. 3M viewed this adjustment as based on an "unsupported assumption that there exists a statistical tendency for all cars to approach the same theft rate." 3M states that if the adjustment is not considered then the effectiveness estimate shows positive results for the parts marking program. State Farm did not agree that the phenomena of regression to the mean is affecting pre-standard theft rates, but did acknowledge that an adjustment for pre-existing trends is needed regardless of what it is called.

State Farm recognizes that the method used in the report to compute theft rates for effective estimates is the common approach, but cautions that large differences in theft rates of individual groups when combined can give misleading results. State Farm also states that the statistical test

used is appropriate, but questions the lack of registration data in computing the confidence bounds, and believes that the confidence interval is 90 percent rather than 95 percent based on the formula shown in the text.

State Farm had two other comments: the pre-existing trend estimate was considered a fixed value while the effectiveness figure was appropriately treated as an estimate; the adjustment for pre-existing trends should have been made by subtracting their natural logs rather than the straight subtraction of the raw percentages.

Allstate, State Farm and VW all believe that there is no way to establish a cause/effect relationship of parts marking with theft rates based on the statistical data available. Finally, NADA stated that the report should stress the reduction of projected theft rates which without the theft prevention standard would not have occurred.

Allstate's analysis was based on projecting trend lines that did not take into account the relative rate of change in theft rates of marked carlines with respect to unmarked carlines. In addition, this analysis did not consider the effect of parts marking on the total population of designated carlines (both current and one year old models) in 1987 and 1988. The slopes of the regression lines that Allstate calculated reveal that while theft rates of predecessors of both marked and unmarked cars increased from 1984-1986, the theft rates for predecessors of marked carlines increased at a much slower rate than the rate for prestandard unmarked cars. This was true for both current and one year old models. The agency analysis took into account all of these considerations.

The HLDI special report was based on comparing insurance claim frequencies and loss payments for all types of theft losses (contents, parts from vehicles, total vehicles). HLDI compared 1987 and 1988 marked and unmarked models with predecessor 1986 models. Most of the changes HLDI attributed to parts marking are based on theft claims below $10,000. A

large number of these are likely for losses resulting from the theft of contents, components and parts, most of which are unmarked. The HLDI analysis is based on comparisons of post standard data with a single base year (1986) and their findings did not indicate whether or not the results were statistically significant.

State Farm recognized that the method used to compute theft rates for the effectiveness analysis is the common approach, but provided hypothetical examples of how this method could, in extreme situations, cause misleading results. The fact remains that the theft data for current and one year old cars were not in any "extreme" range of values and the agency considers combining the data for 1987 and 1988 carlines to be appropriate.

State Farm commented on the standard error calculation and questioned why registration totals were not taken into account. For situations where a proportion is very small and the universe (all registered vehicles) is very large, one can use the total number of thefts in calculating confidence bounds.

State Farm apparently assumed that because no confidence bounds were shown for the pre-existing trend estimate, the 9.8 percent change in theft rate was considered fixed. This is not the case, since the confidence bounds for the pre-existing trend were approximately the same as those for the post-1987 effectiveness estimate, and therefore an additional computation was not needed. In addition, the 1.645 multiplier was used for the confidence bound as the more conservative assumption in order to avoid a Type II error.

The use of natural logs, as suggested by State Farm, to adjust for preexisting trends would have led to the same result, i.e., the change in theft rates for marked carlines are not statistically significant.

The term "regression to the mean" which was described in Part B of Appendix 1 can have several meanings, none of which necessarily improve

the understanding of what is at issue here. It has been stricken from the report. The agency analyzed a possible effect of parts marking by making theft rate trend comparisons between predominantly marked and unmarked cars, taking into account the pre-existing trends of both. Predecessors of marked cars were already showing a lower theft rate increase than the unmarked predecessors - even before the parts marking requirement. When taking this into account in the subsequent analysis, no statistically significant effects of parts marking were found.

All this assumes that a valid analysis is indeed possible, which it might not be, since those cars designated high theft - and marked, may have different characteristics (in terms of demand, price, use, etc.) from low theft carlines which are mostly unmarked.

It follows that the interpretations by commenters to rely on "raw" data, or to visualize variances from projected theft rates (without the parts marking intervention) that purport to show improvements, or to conclude there is <u>proof</u> that the standard is ineffective, are currently not appropriate.

The agency concludes again that the results are indeterminate.

Insufficient Years of Experience with Marked Parts

Seven commenters (Avery Label, NATB, Toyota, California Highway Patrol, American Association of Motor Vehicle Administrators, American Car Rental Association, AAA of Michigan) felt that with two percent of 1987, and five percent of 1988 cars having marked parts, there was not sufficient exposure to measure the effectiveness of the Theft Prevention Standard. Most recommended a five year base (1987-1991 model years) of cars with marked parts for analysis.

In 1987 and 1988 there were almost 72,000 cars with marked parts stolen in the United States. This is a sufficiently large enough sample for drawing inferences from a statistical analysis. The confidence bounds, based on the available data, were very small ($\pm$1.17 percent) allowing the detection of relatively small changes.

The agency in its review of comments does recognize that aside from the problem of non-random parts marking, many commenters want to see analyses based on at least five full years of data since the promulgation of the theft standard in 1985. The agency took note of these views in developing the report's recommendations.

Comparison of Marked and Unmarked Carlines with High and Low Theft Rate Categories

Three commenters (3M, NATB, Justice Department) stated that since not all "high theft" carlines are marked and that some "low theft" carlines are marked, comparative analyses between marked and unmarked low-theft rate carlines and between marked and unmarked high-theft lines should also be made. The commenters felt that by standardizing for motives, as these may be represented by the high or low theft designations, the effect of parts marking could be better established.

The agency had in its initial analyses tried the commenters' approach. The number of thefts of unmarked carlines with high theft rates, and marked carlines with low theft rates, were small. Confidence bounds computed for these theft rate analyses were several times larger than those computed in comparing all marked with all unmarked vehicles. The results were, therefore, indeterminate and this approach was abandoned.

Theft Experience of New and Redesigned Carlines

State Farm Insurance Companies, Mercedes Benz, and the NATB commented that newly introduced and redesigned carlines in 1987 and 1988 would likely have lower theft rates than continued carlines with no design changes.

Theft rates of newly introduced and redesigned carlines were analyzed separately by the agency. For both marked and unmarked 1987 and 1988 carlines no significant difference in their theft rates, as compared to unchanged models, were found. It is possible that thefts of new or redesigned cars are likely to be lower than "normal" for replacement parts, but this may be compensated for by a higher than normal theft rate for joyriding.

Random Assignment of Vehicles for Parts Marking

Comment was sought on alternative approaches for assigning vehicles for parts marking so that a more definitive evaluation of the standard could be conducted. The first approach would be to randomly assign passenger carlines for parts marking, the second approach would require extending parts marking to light trucks and randomly assigning light truck lines for marking.

Several commenters specifically discussed these and other approaches. GM, opposes approaches which would expand ineffective measures to additional product lines -- incurring substantial consumer cost if random marking of cars and light trucks were required. Avery Labels felt that a meaningful analysis should include a random assignment of parts marking to both passenger car and light truck lines. Drs. Clarke and Harris state that random designation of carlines for marking would not provide for a sound study of effectiveness. They suggested that an interrupted time series analysis over more years of data would be a more appropriate design.

The random assignment approach - if it is crucial to definitively evaluate the standard -- received little, if any, support. The suggestion by Drs. Clarke and Harris to consider an interrupted time series analysis would, as they state, require "many more years of data". The agency has recognized the problems in trying to analyse the effect of parts marking on "for profit" auto theft, let alone focusing specificially on "chop shop" operations.

Vehicle Age Effects

Avery Label, 3M and Toyota all stated that vehicle age is a factor in thefts for chop shopping. One cited the comment of auto theft investigators that older vehicles are the more likely targets; another felt that a study of theft propensity should be conducted over a car models' life cycle. With a registered vehicle population where most cars are over two years old, it is not surprising that there is the perception that "older" vehicles are the ones most often stolen. Data graphically presented in Appendix 1 (pp. B-31, 32) show a slight decline in theft rates over time (as cars get older). These data do not support the claim by some commenters that the thefts of 3 to 5 year old cars are higher than for other age groups. Again, it is possible that this year group is sought by professionals for chop shopping, but are less desirable for joyriding and other "not-for-profit" reasons.

Antitheft Device Equipped Cars

Several commenters addressed the effect of antitheft devices. 3M felt the report did not examine the effectiveness of such devices and stated that labels were more cost effective. The Car Audio Specialist and Vehicle Security Associations and Jaguar stated that open competition among antitheft device manufacturers will result in advancing the technology and the marketing of different and superior antitheft systems that are more effective. They want the federal government to encourage the insurance industry to offer discounts for antitheft devices. The Justice Department commented that another reason for lower recovery rates of exempted carlines besides those mentioned in the reports is that they do not have labels. GM disagreed with the report's finding that theft rates of antitheft device equipped cars are no different from marked cars. GM cited its 1986 Corvette, which had the PASS-Key system, resulting in a one third theft rate reduction. In the 1989 model year the PASS-Key System was introduced in the Camaro and Firebird and their theft rates dropped by two thirds.

The agency takes note of comments on the subject, but would like to point out that the treatment of antitheft equipped cars is limited in this report. Thefts and recovery data were available for exempted cars (identified by known VIN series) and several analyses were made. The trend of some of the rates are erratic - as the report points out, and only very general impressions are possible. A report on anti-theft devices was submitted to Congress in May 1987 that addressed a number of the issues raised by commenters.

Cost Effectiveness of Parts Marking

Chrysler and VW commented that their costs for parts marking are higher than the $4.14 average consumer cost shown in the report. NATB wanted a clarification whether or not the $4.14 cost included marking engines and transmissions. 3M reported the marking cost per car ranges from $2.19 to $3.29 -- far below the $15 allowed by the Theft Act. 3M, NATB and Justice all view the $5,000 average value for an unrecovered marked car as too low, and that $11,000 to $15,000 would be a more appropriate value for newer cars. Several commenters considered the reduction of 3,000 car thefts, to show that the standard paid for itself, as too high because the "low" value of $5,000 per car was used to obtain this result.

The IACP and NATB, commented that the $5.4 billion economic loss estimate in the report is too low since the Uniform Crime Report (UCR) shows an $8 billion loss for 1989. In addition they stated that there are other costs which the agency did not consider such as lost work time, temporary transportation costs, increased insurance premiums, law enforcement and court costs, new vehicle and interest costs, and the effect of uninsured vehicles.

The agency, commissioned a cost study to provide the estimated costs typical auto manufacturers incur to comply with the theft prevention standard. The procedures for estimating costs of standards are well established throughout the automotive manufacturing industry. Automotive plants were visited to observe, and conduct time studies for the preparation and application of labels to the 10 to 12 major auto parts. Since engines and transmissions were previously marked with VIN derivatives as an industry practice, and the $15 allowance called for by Congress in 1984 excluded engines and transmissions, their marking costs are not included in the estimate. The direct labor, label costs and a variable burden constitute the variable cost. By adding normal manufacturing indirect and overhead costs and profit, a manufacturer's wholesale cost is established, which in turn is brought to a "consumer

cost" by adding the auto dealer's markup. The agency has used this process for 20 years to develop regulatory safety and related motor vehicle standard costs. The average cost to the consumer for labeling a marked car ($4.14) reflects the unit cost for an average production of about 300,000 units (cars).

An error in the report identified the value of an "unrecovered" car to be $5,000. This amount is the average for a stolen car. The text has been corrected.

In performing a cost benefit analysis it is more appropriate to use the price of the average age car when stolen, rather the new price of a marked car (which was estimated to be $15,000). This is consistent with the $5,117 average value per vehicle stolen during 1988 as published by UCR,and taking into account that a marked car may not be stolen in its first or even second year.

The $8 billion figure in the Uniform Crime Report for the economic loss, as well as the $5.4 billion in the preliminary report, reflect the direct cost of all stolen vehicles. The $8 billion FBI figure is for 1989, the agency estimate is for 1988 and is based on the source used above, and applied to the total number of stolen vehicles in 1988.

The additional costs enumerated by IACP and NATB may well be present to varying degrees, but are usually considered secondary or even tertiary costs which in any event are difficult to quantify. It is the agency's position that the cost benefit analysis, while imperfect, reflects the basic factors that must be considered for a comparative analysis of theft intervention methods.

Parts Marking Methodology

Fourteen commenters discussed parts marking methodology. The IACP, IAATI, NATB, CHP and AAMVA called for stamping, engraving or etching as the preferred more permanent marking methods. Avery, Allstate, Avis and the Jefferson Group said that label security should be improved. The Wayne County, Michigan, Prosecutor said that criminals often miss removing a label on one of the designated parts of a marked vehicle. Jaguar enumerated the reasons why more permanent marking methods pose difficulties for manufacturers. VW said that etching window glass by owners is more cost beneficial than other marking methods. State Farm indicated that they conducted a glass and sheet metal etching project the results of which suggested that theft propensity is related to the ease of removing or altering a marking. Only 3M specifically addressed the issue of label removal stating that they had submitted lab tests which show that their labels cannot be removed intact for reuse.

Proponents of more permanent marking methods suggest that this would improve marking as an aid in recovery of stolen vehicles

The Department takes note of the views of commenters. The standard does not prohibit the use of other marking methods in addition to adhesive labels, by automotive manufacturers, provided such methods do not exceed the Congressional cost limitation.

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