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Report to Congressional Requesters

June 1986

AUTO SAFETY

Effectiveness of Ford Transmission Settlement Still at Issue

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GAO

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Comptroller General
of the United States

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June 10, 1986

The Honorable John D. Dingell
Chairman, Subcommittee on Oversight
and Investigations
Committee on Energy and Commerce
House of Representatives

The Honorable Timothy E. Wirth
Chairman, Subcommittee on Telecommunications,
Consumer Protection, and Finance
Committee on Energy and Commerce
House of Representatives

This report, prepared in response to your February 1985 requests, discusses the December 30, 1980, agreement between Ford Motor Company and the Department of Transportation settling the Department's investigation of an alleged defect in certain transmissions used in 1970-79 model year Fords.

The report also examines various aspects of the National Highway Traffic Safety Administration's handling of the case, including (1) the Administration's and Ford's actions to meet the requirements of the settlement agreement and to monitor the settlement's effectiveness; (2) the Administration's actions to increase public awareness of the issue; and (3) the Administration's analysis and presentation of accident statistics, particularly fatality statistics, related to the case.

We are sending copies of the report to appropriate House and Senate committees; interested Members of Congress; the Secretary of Transportation; the Director, Office of Management and Budget; and the President of Ford Motor Company. We will also make copies available to others upon request.

Charles A. Bowsher
Comptroller General
of the United States

Executive Summary

Purpose

On December 30, 1980, the Ford Motor Company and the Department of Transportation (DOT) entered into an agreement to settle DOT's investigation of an alleged defect in certain transmissions used in 1970-79 model year Fords. These transmissions allegedly failed to hold or engage in park, resulting in inadvertent vehicle movement. Over 250 deaths and thousands of incidents (including accidents involving property damage and/or injuries) allegedly resulted from such occurrences. Similar incidents and deaths are still being reported to DOT's National Highway Traffic Safety Administration (NHTSA).

The Chairmen of two congressional subcommittees asked GAO to examine various aspects of NHTSA's handling of the case, including (1) actions to meet the requirements of the settlement agreement and to monitor the settlement's effectiveness, (2) actions to increase public awareness of the problem, and (3) analysis and presentation of accident statistics, particularly fatality statistics, related to the case.

Background

NHTSA conducted an extensive 3-year investigation into the so-called "park-to-reverse" problem in Fords and made an initial determination in June 1980 that a safety-related defect existed. It did not make a final determination of a safety defect and order a vehicle recall but, rather, referred its recommendations to the Secretary of Transportation. Without accepting or rejecting the initial determination, the Secretary negotiated a settlement with Ford. Under the settlement, Ford agreed to mail letters and reminder labels to over 22 million vehicle owners to encourage them to use proper parking procedures before exiting their vehicles. In the letter to Ford accepting the settlement, DOT stated its belief that Ford's actions would be likely to significantly reduce the occurrence of fatalities and other incidents related to inadvertent vehicle movement.

After the letters and labels were mailed, NHTSA closed its investigation and denied several petitions to again investigate the case. In denying the most recent petition, filed in March 1985 by the Center for Auto Safety, NHTSA said it did not expect that further investigation would lead to a final defect determination.

Results in Brief

Both NHTSA and Ford met the specific requirements of the settlement agreement. Furthermore, NHTSA has taken actions to alert the public to the need to use careful parking procedures. However, GAO's review indicates that available information is not sufficient to conclude that, in

entering into the settlement agreement, the Department has achieved its specific expectation of significantly reducing the occurrence of incidents and fatalities.

In GAO's view, the available incident and fatality data conflict in that the incident data show a decline since the 1980 settlement, while the fatality data show no overall decline. NHTSA's analysis of the incident data, which it believes demonstrates the settlement's effectiveness, lacks statistical validity because no provision was made for the effect of publicity or the intensity of data collection efforts. Statistically valid analysis of the fatality data is also limited because small changes in the number of fatalities in any one year could materially affect the analysis.

Principal Findings

Fulfilling the Settlement Agreement

The settlement agreement between Ford and DOT required Ford to mail letters and reminder labels to all owners of record of 1970-79 Ford vehicles (over 22 million). In return, NHTSA agreed to close its investigation. Ford initiated a mailout program in March 1981 and completed it in May 1981. On May 4, 1981, NHTSA formally closed its investigation.

NHTSA's Post-Settlement Monitoring Commitment

NHTSA has made commitments to a congressional subcommittee and to the U.S. Court of Appeals to "monitor" the Ford case by collecting incident and fatality data and by investigating newly reported fatalities. It also said it would take actions to disseminate consumer information about the problem as it applies to all vehicles. NHTSA has made efforts to meet these commitments by obtaining incident and fatality data from Ford, by investigating newly reported fatalities since January 1984, and by preparing articles and press releases for media use on the subject beginning in October 1984.

Analysis of Data

NHTSA used a data base of 19,445 alleged inadvertent vehicle movements to discern changes in the level of occurrence of incidents since the settlement. It concluded from these data that the number and rate of incidents have declined steadily since 1980. However, the incident data analysis did not take into account the effects of decreased publicity or the intensity of data collection efforts, both of which are required in order to attribute statistical validity to the downward trend.

In contrast to the incident data, NHTSA's fatality data show no overall decline in the fatality rate in the years after the settlement. While 20 or more fatalities have been reported each year since the settlement, the fatality data's sensitivity to small changes in the number of fatalities in any one year limit its usefulness in any statistically valid analysis of the settlement's effectiveness.

NHTSA's data also indicate that unexpected vehicle movement fatalities are not limited to Ford vehicles. When expressed as the ratio of fatalities to the number of vehicles produced by a manufacturer, the data show that the number of fatalities documented for 1970-79 Fords exceeded those reported by other domestic manufacturers by factors ranging from 2.5 to 4.5. Ford argues that its figures are higher because of publicity about the case. As a result, in Ford's view, a greater proportion of Ford, as opposed to non-Ford, fatalities will always be reported.

Current Status of the Case

In GAO's opinion, the data suggest that NHTSA should take further action to address the motor vehicle safety concerns involved in inadvertent vehicle movement. GAO has identified several options DOT could take to meet its original expectations. One option would be to initiate a new investigation to determine whether a defect exists. This option, however, has significant limitations. (See p. 42.)

Other options would be for NHTSA to undertake a more extensive public awareness campaign to communicate to all drivers the importance of following safe parking procedures. Or, NHTSA alone or possibly in concert with Ford, could develop an approach for providing information to current owners of 1970-79 Ford vehicles encouraging that safe parking procedures be followed. These options could be undertaken concurrently. The Secretary also may identify some other option.

Recommendations

Given the unresolved issues concerning the government's 1980 settlement agreement with Ford, the Secretary of Transportation should direct the Administrator, NHTSA, to take further action. GAO has identified options the Secretary may wish to consider. Since NHTSA may, at some future date, again pursue a negotiated settlement that does not involve a recall, GAO recommends that the Secretary of Transportation direct the Administrator to establish a methodology to monitor and assess the effectiveness of any such settlement. (See p. 43.)

Agency Comments

Both the Department of Transportation and Ford Motor Company generally accept GAO's summary of the factual background and chronology of the case. Also, both parties generally consider GAO's option that NHTSA undertake a more extensive public awareness campaign to communicate to all drivers the importance of following safe parking procedures as having merit. The Department, however, does not agree with GAO's criticism of NHTSA's method of assessing the effectiveness of the settlement, and Ford believes that since there never was a defect, the premise of the need for a remedy is erroneous.

Regarding the Department's criticism, the Ford transmission case was unique in that rather than make a final defect determination, the Department negotiated a settlement with Ford with the stated expectation that the settlement would significantly reduce the incidence of accident, death, and injury resulting from unexpected vehicle movement. GAO found that NHTSA has not performed the statistical analysis necessary to measure the settlement's effectiveness. Also, GAO found that while the incident data showed a decline in the rate of incidents since the settlement, the fatality data showed no overall decline in the rate of fatalities over the same period.

The Department and Ford comments and GAO's response are included in appendixes V and VI, respectively.

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Abbreviations

AARP	American Association of Retired Persons
AMC	American Motors Corporation
CFAS	Center for Auto Safety
DOT	Department of Transportation
FARS	Fatal Accident Reporting System
GAO	General Accounting Office
GM	General Motors
NHTSA	National Highway Traffic Safety Administration
ODI	Office of Defects Investigation

Introduction

On December 30, 1980, the Department of Transportation (DOT) entered into an agreement with the Ford Motor Company. This agreement concluded DOT's investigation of an alleged defect in certain transmissions used in 1970-79 model year Ford vehicles. The transmissions allegedly failed to hold or engage in the park gear. Ford agreed to mail letters and reminder labels to the approximately 22 million owners of these vehicles, cautioning them of the need to place their vehicles in park, set the parking brake fully, and shut off the ignition before leaving their vehicles. DOT, in return for Ford's action, agreed to close the case but reserved the right to take further action if new facts warranted.

Incidents and fatalities are, however, still being reported. This has led several consumer groups to petition DOT's National Highway Traffic Safety Administration (NHTSA), the federal agency responsible for assuring motor vehicle safety, to reopen its investigation. NHTSA maintains, however, that the settlement agreement has been effective in reducing the number of reported incidents and fatalities and that further investigation would not result in a determination that the vehicles in question are defective. It therefore denied these petitions.

Key Terms

This report uses these terms on many occasions to characterize more detailed information:

- Ford vehicles refer to all models of automobiles and light trucks manufactured by the Ford Motor Company (Ford, Lincoln, and Mercury).
- Inadvertent vehicle movement refers to any unexpected motor vehicle movement occurring after the driver places or attempts to place the gearshift lever into the park position. Other terms, such as "unexpected rearward movement" and "park-to-reverse" have also been used to describe this phenomenon. They are, however, not as comprehensive as "inadvertent vehicle movement."
- Incidents refers to all occurrences of inadvertent vehicle movement other than fatalities. An incident may involve an inadvertent vehicle movement without any harmful consequences or one resulting in an accident involving property damage, injury, or both.

NHTSA Is Responsible for Identifying and Investigating Potential Motor Vehicle Safety Defects

The National Traffic and Motor Vehicle Safety Act (15 U.S.C. §§1381 et seq.) was enacted on September 9, 1966, with the stated purpose of reducing traffic accidents, injuries, and fatalities. The act gives the Secretary of Transportation the responsibility and authority for investigating motor vehicle safety defects and directing action to remedy them. The Secretary's functions under the act have been delegated to NHTSA. A safety defect is defined as any defect in the performance, construction, components, or material of a motor vehicle or item of replacement equipment that subjects the public to unreasonable risks of accident, injury, or death.

The Investigation Process

The Office of Defects Investigation (ODI), under NHTSA's Associate Administrator for Enforcement, conducts safety defect investigations. ODI can begin an investigation under NHTSA's broad authority, in response to an interested party's petition, or on the basis of information provided by the manufacturer.

Potential safety defects can be identified in several different ways. NHTSA usually learns of potential problems by monitoring consumer complaints received over its toll-free Auto Safety Hotline. After the complaints are sorted and reviewed, follow-up vehicle owner questionnaires are mailed to the hotline callers. NHTSA staff engineers use their judgment in determining whether a pattern seems to be emerging from the complaints received. No fixed numbers of complaints automatically trigger an investigation into an alleged safety problem. Alternatively, the public may petition NHTSA to investigate a potential problem; in such cases NHTSA is required to review and seriously consider all petitions received. NHTSA retains, however, the latitude to assess the information it receives from any source and make its own decision whether to initiate defect investigations.

If NHTSA decides to act on an alleged problem, it first reviews any complaints on file and obtains preliminary information from the vehicle's manufacturer. This is a preliminary evaluation or inquiry.

If warranted by the preliminary evaluation, ODI conducts an engineering analysis. Such an analysis may also be undertaken without any previous preliminary evaluation. During the engineering analysis, NHTSA may make further contact with owners who have reported the problem to ODI; ask for additional, more detailed information from the manufacturer; perform other information searches; and/or initiate a test program to simulate the problem and try to identify its cause and safety-

related consequences. If the matter has been resolved by this time, either through satisfactory corrective action by the manufacturer or a decision by ODI that it had not found sufficient information suggesting there may be a defect, the engineering analysis may be closed. Otherwise, a formal investigation may be opened.

Typically, NHTSA will issue a press release announcing the opening of a formal investigation. This announcement may solicit additional information from the public. During the investigation, NHTSA may obtain more detailed information from the manufacturer and may survey owners, conduct mechanical testing programs, and monitor continuing complaints about the problem. The formal investigation develops documentary evidence that attempts to bridge the gap between an alleged defect and an initial determination that a safety-related defect exists.

If NHTSA does not decide to close the case after completing its formal investigation, it will make an initial determination of defect with the concurrence of the Office of Chief Counsel. The manufacturer can then present its data, views, and arguments at a public meeting. After the public meeting, the NHTSA Administrator weighs the information before the agency, including that presented at the public meeting. It may, under authority delegated from the Secretary of Transportation, issue a final determination of a safety-related defect and order the manufacturer to initiate a recall to correct the safety-related defect. Such an order, however, is not self-enforcing. If the manufacturer refuses to initiate a recall voluntarily, NHTSA must obtain an enforcement order from a U.S. District Court. At that point, a trial de novo is held, with NHTSA bearing the burden of proving the existence of the defect by a preponderance of the evidence.

Chronology of Major Events in the Ford Transmission Case

On October 18, 1977, NHTSA opened an investigation of Ford vehicles[1] equipped with certain automatic transmissions. The investigation was opened on the basis of 31 reports of inadvertent vehicle movement in Ford vehicles.

In June 1980 NHTSA made an initial determination that a safety defect existed involving five specific automatic transmission types in model

[1]The investigation would ultimately cover model years 1970-79. Model years prior to 1970 were not included because they were not within NHTSA's recall authority, under the National Traffic and Motor Vehicle Safety Act, to order the manufacturer to correct the defect at the manufacturer's expense. The act limits the authority to vehicles first purchased within 8 years of the notification to owners of such a defect.

year 1970-79 Ford vehicles. In its report accompanying the initial defect determination, ODI (1) described what it believed was the mechanical cause for the defect and (2) stated that it had more than 23,000 reports of failures on file involving more than 12,000 vehicles. The reports came from Ford customers, either directly to NHTSA or through state and private consumer groups.

In August 1980 NHTSA held a public meeting to provide Ford an opportunity to present its views. During the meeting, Ford cited six reasons in rejecting the idea that a defect existed. First, on any properly maintained automatic transmission vehicle, it is physically impossible for a shift selector lever placed in park to come out of park by itself. Second, inadvertent vehicle movement could occur and has occurred in all manufacturers' vehicles. Third, publicity on this case had singled out Ford and therefore resulted in more reports on its vehicles. Fourth, NHTSA had overcounted and improperly evaluated incident reports when preparing its statistics. Fifth, accidents occurred due to driver error in carelessly shifting gears. Sixth, NHTSA's defect theories were disproved by its own test results.

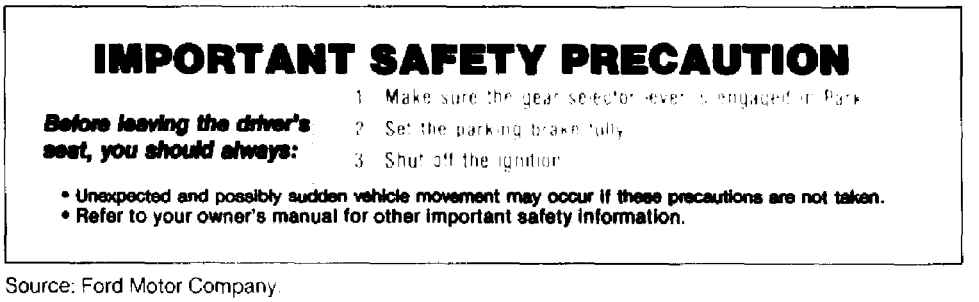
NHTSA rejected Ford's criticisms, saying they were too narrowly based and addressed NHTSA's findings out of context. NHTSA maintained that inadvertent vehicle movement occurred much more frequently in Fords than in other vehicles, that NHTSA's statistics were sound, and that a demonstrable mechanical defect existed.

Following a public meeting, the NHTSA Administrator, through delegation of authority from the Secretary of Transportation, normally decides whether a final determination of a defect should be made. In this case, however, the Secretary withdrew that delegation because this was such a large and serious case. In a memorandum to the Secretary dated October 3, 1980, the Administrator recommended that a final determination of a safety-related defect be issued as to some of the vehicles under investigation.

The memorandum recommended a recall of three of the five transmission types and negotiation of a settlement on the other two transmissions, which the Administrator believed might be corrected through a warning device. Rather than make a final defect determination and order a vehicle recall, however, the Secretary held negotiations with Ford, leading to a settlement agreement for all five transmissions.

Under terms of the agreement, signed on December 30, 1980, DOT and Ford agreed that Ford would send letters and adhesive labels to the owners of all vehicles covered by the initial defect determination (an estimated 22 million vehicles). The letter urged recipients to place the label in a conspicuous place in the motor vehicle, such as on the dashboard or sun visor. The letter and label reminded the owners of three safety precautions to be followed before leaving the vehicle: put the vehicle in park, set the parking brake fully, and shut off the ignition. (See fig. 1.1 and fig. 1.2.) In return, DOT agreed to close the case but reserved the right to take further action if warranted by new facts. On May 4, 1981, the case was closed.

Figure 1.1: The Ford Reminder Label



Source: Ford Motor Company.

Figure 1.2: The Ford Letter

Owner Relations
Ford Parts and Service Division

3000 Schaefer Road
P. O. Box 1805
Dearborn, Michigan 48121

April, 1981

Dear Owner:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

On June 9, 1980, the National Highway Traffic Safety Administration (NHTSA) made an initial determination that a defect which relates to motor vehicle safety exists in 1970-1979 and certain 1980 Ford vehicles equipped with FMX, C-3, C-4, C-6 or JATCO automatic transmissions. According to NHTSA's initial determination, the park gear may not be securely engaged after the operator has attempted to shift the gear selector lever to "P" (Park) and the transmission may shift to reverse by itself without warning, allowing the vehicle to move when it is unattended. NHTSA also initially determined that such uncontrolled vehicle movement may result and has resulted in injury to or death of the occupants of the vehicle or to persons outside the vehicle.

Ford wishes to warn owners and drivers of these vehicles of the serious hazard which may result if the vehicle is not securely engaged in park and is left unattended without shutting off the engine and fully applying the brake, and to remind them of the precautions set out in their owners manuals. In order to resolve this matter, Ford has produced the enclosed self-sticking label to serve as a day-to-day reminder to you and to alert others who may drive your vehicle. Ford strongly urges you to place the label in a conspicuous location in your vehicle, such as the dashboard or the sun-visor, and to observe the following safety precautions:

- Never leave a vehicle unattended without first turning off the engine and securing the parking brake fully.
- When shifting to park, be sure that you have rotated the gear-shift lever as far as it will go in a counterclockwise direction by first pulling the lever toward the steering wheel and then rotating it to the left as far as it will go. If you are not sure the transmission is in park, give the gear selector a firmer push toward the park position while pulling it toward you.
- Always check whether the vehicle is in the "P" (Park) position after you have shifted it. To determine if the gearshift lever is fully engaged in the park position, you should not be able to rotate it toward reverse unless you first pull it toward you.
- For vehicles equipped with floor-mounted gearshift selector levers, when shifting into the "P" (Park) position, move the lever all the way forward while fully depressing the release button. To determine if the gearshift lever is in the "P" (Park) position, you should not be able to move it toward reverse unless you first depress the release button.
- The gearshift linkage holds the transmission in the park position. Always keep the vehicle's gearshift linkage in proper maintenance and adjustment.

The enclosed form contains our current record of the vehicle you own. If you no longer own this vehicle, please fill out the appropriate portion on the enclosed prepaid postcard and mail it to us so that we may correct our records.

Should you have any questions relating to this matter, including proper maintenance and operation of the park selector system, please contact a Ford or Lincoln-Mercury dealer; or write Owner Relations, Ford Parts and Service Division, P.O. Box 1805, Dearborn, Michigan, 48121; or call 1-800-521-4134 (except Alaska and Hawaii-in Michigan call 1-800-482-0234). Questions regarding this matter may also be directed to the Administrator, National Highway Traffic Safety Administration, Washington, D.C. 20590.

Sincerely,

Owner Relations
Ford Parts and Service Division

Source: Ford Motor Company.

In March 1981 the Center for Auto Safety, a private, nonprofit organization, filed suit challenging the Secretary's decision to settle the case in the above manner as being arbitrary, capricious, and an abuse of his discretion. In October 1981 the U.S. District Court for the District of Columbia ruled against this argument, citing the difficulty and expense of the case as a valid base for choosing to settle. The Court of Appeals for the District of Columbia affirmed that decision in August 1982.

In July 1983 the Subcommittee on Telecommunications, Consumer Protection, and Finance, House Committee on Energy and Commerce, held oversight hearings on the Ford transmission case. In the course of the hearings, NHTSA agreed to monitor the settlement agreement, conduct a public information campaign, and investigate fatalities related to Ford inadvertent vehicle movement incidents.

On March 6, 1985, the Center for Auto Safety, in concert with 19 additional organizations and 2 individuals, petitioned NHTSA to again investigate the inadvertent vehicle movement matter. On July 12, 1985, NHTSA denied the petition, saying it did not expect that further investigation would lead to a final defect determination. The Center filed suit on September 9, 1985, asking the District Court to require NHTSA to conduct a defect investigation. On April 16, 1986, the Court refused to overturn NHTSA's decision.

Objectives, Scope, and Methodology

In February 1985 we received requests from two subcommittees of the House Committee on Energy and Commerce to review NHTSA's actions regarding the Ford transmission case. One was from Chairman John D. Dingell of the Subcommittee on Oversight and Investigations; the other was from Chairman Timothy E. Wirth of the Subcommittee on Telecommunications, Consumer Protection, and Finance.

Chairman Dingell requested that we review

- legal issues regarding "reopening" the Ford case,
- allegations that NHTSA manipulated fatality statistics,
- requirements for NHTSA and Ford to monitor the settlement agreement,
- NHTSA's public information campaign, and
- allegations that inadvertent vehicle movement incidents are not unique to any one manufacturer.

Chairman Wirth requested that we review

- NHTSA's monitoring of the settlement,
- Ford case fatality statistics,
- effectiveness of Ford's reminder labels, and
- NHTSA's public information campaign.

On August 1, 1985, at the invitation of Chairman Wirth, we testified on our ongoing review.

This report responds to the requests of both chairmen; the major questions are addressed in the text. In letters dated September 9 and October 9, 1985, Chairman Dingell posed a series of additional questions concerning our August 1 testimony. The questions raised in these letters are addressed in appendix IV. Greater detail on specific matters discussed in the text is provided in several additional appendixes.

Legal issues raised by Chairman Dingell are addressed in a separate legal opinion being issued concurrently with this report. The opinion provides our views on reopening the Ford case and other legal matters raised by the Chairman.

In addressing the areas identified above, we held discussions with officials of NHTSA, the Center for Auto Safety, Ford Motor Company, General Motors Corporation (GM), Chrysler Corporation, American Motors Corporation (AMC), and selected foreign auto manufacturers—Honda, Mazda, Mercedes-Benz, Nissan, Toyota, and Volvo.

In examining NHTSA's monitoring of the settlement, we reviewed the settlement agreement and related documents; developed a chronology of monitoring actions taken by NHTSA; examined commitments made to a congressional subcommittee and the U.S. Court of Appeals; and held discussions with NHTSA officials, including the current Administrator, about their interpretation of those commitments as well as their actions to fulfill them. We also held discussions with the former NHTSA Administrator and chief counsel responsible for the 1977-80 Ford investigation regarding their intentions and interpretation of NHTSA's responsibility.

To develop fatality statistics, we obtained summary data from NHTSA on all alleged inadvertent vehicle movement fatalities reported to the agency. We analyzed those data by year of accident, model year of vehicle, and other parameters. We also held interviews with NHTSA officials about their methodologies in collecting and analyzing these data and reviewed a representative sample of the actual case files. The

Center for Auto Safety provided case materials on all fatalities they were aware of, and these data were compared with the NHTSA data.

We also obtained summary data on all non-Ford alleged inadvertent vehicle movement fatalities reported to NHTSA since the Ford settlement. We analyzed these data as we did the Ford fatality data.

In addition to the fatality data, we reviewed incident files at both NHTSA and Ford in order to determine the nature and sources of the documents. We reviewed a statistically representative sample of the Ford incident data since they were an important basis for NHTSA's July 1985 decision to deny the Center for Auto Safety's petition to open a new investigation of the Ford case.

Cases of inadvertent vehicle movement involving other makes of vehicles were discussed with Ford Motor Company, GM, Chrysler Corporation, and AMC. We obtained data from each of these manufacturers on fatalities and incidents involving their products. However, we chose to rely on fatality data evaluated by NHTSA when drawing conclusions about the relative severity of the inadvertent movement problem in other vehicles because each of those fatalities had been judged as to whether it related to inadvertent vehicle movement. Our review did not include making engineering evaluations of either transmission designs or accident reports.

We reviewed NHTSA's data on alleged inadvertent vehicle movement incidents involving foreign manufacturers' automobiles. Only a few scattered incidents had been reported. In discussions with selected foreign manufacturers, we discovered no further evidence of the occurrence of inadvertent vehicle movement in any of these makes.

To assess NHTSA's use of fatality and incident statistics in gauging the settlement's effectiveness, we reviewed NHTSA's use of those statistics. Our review was limited to the data used and analysis performed by NHTSA in assessing the settlement's effectiveness because our objective was to determine the reasonableness of the agency's actions. Consequently, we did not independently analyze the data nor attempt to independently identify other data sources.

To examine NHTSA's public information campaign, we identified NHTSA's activities designed to inform the public about the danger of leaving a motor vehicle unattended with the motor running. We held discussions with the NHTSA Administrator and other NHTSA officials to determine

their interpretations of the extent of their responsibilities in publicizing the problem and in linking it specifically to Ford.

Since neither NHTSA nor Ford has collected information allowing us to determine the effectiveness of the reminder label program, this report presents only the industry practices regarding the use of labels. To examine the use of labels as a means of communicating information to consumers, we interviewed officials at Ford and other domestic manufacturers regarding their policies and procedures for issuing labels to consumers. Our results are summarized in appendix II.

Since the scope of our work did not include any independent engineering analysis, we did not independently assess the engineering basis for ODI's June 1980 initial defect determination. Neither did we independently assess, from an engineering standpoint, the changes Ford made in 1980 to its automatic transmission designs.

Our review was conducted from March 1985 through September 1985 in accordance with generally accepted government auditing standards.

Chapter 2 of this report discusses the various actions related to the case taken by Ford and NHTSA since the settlement agreement was reached. Chapter 3 discusses NHTSA's recent analysis of the settlement's effectiveness based on incident data and presents our findings regarding fatality data. Chapter 4 contains our conclusions and recommendations. As noted, the report's appendixes contain supplemental information answering the original requests from Chairmen Dingell and Wirth, as well as additional specific questions raised by Chairman Dingell.

NHTSA's and Ford's Post-Settlement Activities

The settlement agreement between DOT and Ford required each party to take limited actions. Ford was to send notification letters and reminder labels to all owners of vehicles covered by the initial determination and provide a report to NHTSA of that action following the mailing. Following Ford's action, NHTSA, on DOT's behalf, was to close the case. Both parties have taken the actions contained in the agreement. NHTSA has monitored the settlement (principally at the urging of interested parties), renewed its fatality investigations in January 1984, and has begun a public awareness campaign. The agency has conducted no further engineering analysis beyond that performed during the original investigation.

The requirements of the National Highway Traffic and Vehicle Safety Act also place broad continuing responsibilities concerning motor vehicle safety on both NHTSA and automobile manufacturers.

Ford's Activities Following the Agreement

Under the settlement agreement, Ford agreed to mail to the approximately 22 million owners of vehicles covered by NHTSA's initial determination of a defect (1) a letter reminding them of the possible hazards that may result if a vehicle is left unattended with the engine running and (2) an adhesive label cautioning owners to "put the vehicle in park, set the parking brake fully, and shut off the engine" when parking their vehicles. Further, the letter urged recipients to place the label in a conspicuous place in their vehicles.

The first letters and labels were mailed to owners in March 1981 and a second, follow-up mailing for vehicles reported to have changed ownership was completed in May 1981. Ford reported to NHTSA that 88 percent of the letters were delivered, including both the initial mailing and the follow-up mailing. The remainder were returned as undeliverable, and Ford did not attempt to locate these owners. Ford also provided labels to all of its dealers so they could, upon request, provide them to vehicle owners.

NHTSA's Activities Following the Agreement

NHTSA's only requirement under the agreement was to close the Ford investigation after Ford had met its responsibilities. NHTSA closed the investigation on May 4, 1981, after Ford notified NHTSA that it had fulfilled its settlement responsibilities. Under the agreement, however, NHTSA reserved the right to take whatever action may be required under the National Traffic and Motor Vehicle Safety Act and warranted by new facts.

NHTSA's responsibility, however, did not end with the settlement agreement. Under the act, NHTSA has broad authority to monitor and follow up on safety-related problems and to assure that the manufacturer corrects safety-related defects. The act permits NHTSA to determine, through any appropriate means available to it, whether a safety-related defect exists. In addition, NHTSA can monitor the reasonableness of a safety remedy and may, if warranted, investigate new facts about a case even if an investigation of the same alleged defect is closed. NHTSA, however, has no specific legal obligation to investigate post-settlement incidents involving vehicles covered by a settlement agreement.

NHTSA Has Made a Series of Nonbinding Commitments

In the years following the settlement, NHTSA made several commitments to monitor the agreement and inform the public of the potential safety hazards associated with improperly parking a motor vehicle. Commitments were made to the U.S. Court of Appeals in the course of a lawsuit challenging the settlement and to a congressional subcommittee during oversight hearings. Those commitments are not legally binding in the sense that an interested party could obtain judicial enforcement of them. The commitment to the court is not binding because the court's decision did not obligate NHTSA to monitor the agreement. Commitments to congressional committees and subcommittees, in the absence of a legislated requirement, are also in themselves not binding.

One commitment was made in March 1982 to the U.S. Court of Appeals, which was reviewing an appeal by the Center for Auto Safety of a U.S. District Court for the District of Columbia judgment upholding the settlement agreement's legality. During the proceedings, NHTSA counsel responded to a question from Court of Appeals Judge Harry T. Edwards that the agency would monitor the settlement agreement in order to assess its success. In a July 26, 1983, letter to Chairman Wirth, NHTSA's Deputy Administrator defined this commitment as monitoring the results of the program and the complaint rate rather than identifying the percentage of labels that were actually affixed to vehicles.

Commitments were also made during the July 27, 1983, oversight hearing before Chairman Wirth's subcommittee. During the hearing, the NHTSA Deputy Administrator stated that the agency would monitor the case, investigate all fatal accidents, and begin a public awareness campaign on safe parking procedures. In addition, the agency promised to consider taking steps to inform the elderly of the potential problem. The elderly were singled out because they constituted a disproportionate share of the fatalities involving inadvertent vehicle movement.

NHTSA's Monitoring Activities

From August 1981 through May 1985, NHTSA corresponded with Ford regarding the case 13 times. After closing its investigation on May 4, 1981, NHTSA began requesting data from Ford on alleged inadvertent vehicle movement incidents, primarily in response to congressional and other inquiries. In seven of these inquiries, NHTSA asked Ford to provide information on alleged inadvertent vehicle movement deaths, injuries, and incidents. NHTSA used these data to respond to petitions by consumer advocates requesting that NHTSA reopen the case. In another letter NHTSA asked Ford for similar data to update the count of fatalities, injuries, and accidents in order to respond to a request from Chairman Wirth. (NHTSA has, on various occasions, corresponded directly with the Chairman to provide information on the Ford case.) Two of the letters either forwarded information to Ford or acknowledged the receipt of information from Ford. The remaining three letters to Ford were initiated by NHTSA.

In addition to requesting information from Ford, NHTSA in March 1985 surveyed the other three major domestic automobile manufacturers for known inadvertent vehicle movement incidents involving their respective vehicles. These figures, along with Ford's, were used in NHTSA's July 12, 1985, response to the Center for Auto Safety's March 1985 petition for NHTSA to conduct an expedited investigation of Ford transmissions.

Investigating Fatalities

With regard to its commitment to investigate Ford fatalities, in an October 3, 1983, letter to Chairman Wirth, the Administrator clarified that NHTSA would not investigate all alleged Ford fatalities but would investigate only those that were (1) reported after the October 3 letter and (2) had insufficient information to establish whether the fatality was related to inadvertent vehicle movement. Prior to this commitment, NHTSA had not investigated any Ford fatalities since the 1980 agreement. In October 1983 NHTSA contracted with GAB Business Services, Inc., to conduct fatality investigations. The first of these investigations began in January 1984; as of July 15, 1985, GAB had investigated 33 fatalities.

The Public Awareness Campaign

NHTSA's commitment to begin a public awareness campaign included issuing press releases and articles, strengthening the language used on the NHTSA Auto Safety Hotline and in written responses to consumer inquiries by referring specifically to the Ford investigation, and considering steps to inform the elderly of the potential hazard.

In 1984 NHTSA took several actions directed at instructing drivers on how to safely park their vehicles. Between August 1984 and December 1985, NHTSA issued a general news release on safe driving practices; provided a "live-copy" radio public service announcement on three separate occasions to 1,900 radio stations; prepared and distributed two articles to an estimated 4,000 weekly newspapers as well as to various consumer organizations; and published a pamphlet entitled "Safe Driving Practices," which it is including in any mailout to consumers who ask for other highway safety material. When NHTSA issues general news releases, it does not routinely collect information on how many of the radio stations and newspapers actually use the information nor how many times and when the information is broadcast. Further details on these activities are provided in appendix III.

In 1983 NHTSA changed the language used in responding to consumer calls to its Auto Safety Hotline and in response to consumer queries about inadvertent vehicle movement to strongly urge consumers to follow the safe parking procedures listed on the Ford reminder label. To inform the elderly, NHTSA at one point stated, in correspondence to Chairman Wirth, that it would explore inserting parking precaution reminders to the elderly into envelopes containing their social security checks. Subsequently, the NHTSA Administrator decided against such an insertion because of its cost.

NHTSA Engineering Analysis Ended With Its Original Investigation

Since closing its Ford transmission investigation in May 1981, NHTSA has conducted no additional engineering analysis beyond that conducted in its original investigation. During NHTSA's 1977-80 investigation, which the agency describes as one of the most intensive inquiries in its history, the agency did extensive mechanical testing and engineering evaluation of various transmissions to determine whether a design defect might be responsible for certain Ford transmissions' allegedly failing to hold or engage in park. NHTSA concluded that the FMX, C-3, C-4, C-6, and JATCO transmissions can cause inadvertent vehicle movement. The agency identified some of the factors that might account for inadvertent movement in these vehicles. For Ford's FMX, C-3, and C-4 transmissions, NHTSA stated that they had insufficient spring forces acting on the controls inside the transmission to counteract the transmissions' natural tendency to shift from park to reverse. For Ford's C-6 and JATCO transmissions, NHTSA said that they were found to "bind" midway between the park and reverse gears, thus tending to cause drivers to misposition the gear selector levers.

Ford criticized NHTSA's engineering analysis at a public meeting on the case in August 1980. Ford said NHTSA's technical description of the alleged defect was contradicted by the agency's own test results as well as other outside tests. NHTSA replied that Ford had misread and misused the data and that NHTSA's engineering analysis remained valid. In addition, in a July 21, 1981, affidavit given in the Center for Auto Safety's lawsuit challenging the settlement, NHTSA's Associate Administrator for Enforcement at the time of the investigation and the person responsible for it stated that if the case had not been settled, it might have been necessary to undertake major new investigative efforts in order to attempt to reach a conclusion as to whether a defect within the meaning of the National Traffic and Motor Vehicle Safety Act was present in the Ford case. In another affidavit, NHTSA's chief counsel stated that he had sent a letter to Ford's counsel on February 19, 1981, confirming that no final determination had been made in the case.

Analyses of Incident and Fatality Data Used in Assessing the Settlement's Effectiveness Lack Statistical Validity

In the December 30, 1980, settlement agreement, DOT stated its belief that the actions taken under the agreement would be likely to reduce significantly the occurrence of accident, death, and injury resulting from inadvertent vehicle movement. Whether the agreement has achieved DOT's expectations is unknown because of statistical limitations in the analyses of both the incident and fatality data. Based on analysis of its incident data, NHTSA concluded that the overall trend of inadvertent vehicle movement incidents has continued downward. NHTSA, however, has not demonstrated that its incident data base was statistically reliable for purposes of assessing the settlement's effectiveness. Also, NHTSA's fatality data show no overall decline in the rate of fatalities per million Ford vehicles on the road in the years after the settlement. While 20 or more fatalities have been reported each year since the settlement, the sensitivity to small changes in the number of fatalities in any one year limit its usefulness in any statistically valid analysis of the settlement's effectiveness.

NHTSA's data also indicate that unexpected vehicle movement fatalities are not limited to Ford vehicles. However, when expressed as a ratio of fatalities to the number of vehicles produced by a manufacturer, NHTSA's data show that the number of fatalities documented for 1970-79 Fords exceeds those reported by other domestic manufacturers—GM, Chrysler, and AMC—by factors ranging from 2.5 to 4.5. Reported fatalities for 1970-79 Fords are also relatively greater than the reported fatalities for 1981-84 Fords, which incorporate automatic transmission design changes. However, this disparity may be attributable to the longer period the 1970-79 vehicles have been in use and the "lag time" in reporting fatalities on 1981-84 vehicles.

DOT's Settlement Expectations Were Reduced Incidents and Fatalities

The December 30, 1980, settlement agreement between DOT and Ford, as previously described, consisted of an exchange of letters between the two parties. DOT's letter, signed by the Acting Secretary of Transportation, stated that:

"We believe Ford's sending of the proposed notification letter and safety label to the owners of all vehicles covered by [the] . . . June 9, 1980 initial defect determination would adequately address our motor vehicle safety concerns in this matter at this time. We believe this action would be likely to reduce significantly the incidence of accident, death and injury resulting from unexpected rearward vehicle movement after the driver has attempted to shift the gear selector lever to "P" (Park). . . ."

This statement describes DOT's specific expectations for the settlement agreement.

There Was No Prior Evidence the Settlement Remedy Would Be Effective

Prior to the settlement agreement, no evidence was established during NHTSA's investigation as to whether the settlement remedy would be effective in reducing inadvertent vehicle movement incidents. In its 1977-80 defect investigation report, which presented the initial documentation of the alleged defect, NHTSA did not analyze the effectiveness of a letter/label program as a solution. Other documents, such as the record of NHTSA's August 1980 public meetings to provide Ford an opportunity to present its views on the June 30, 1980, initial determination of a defect, contain no discussion on the subject.

Ford was the first to suggest a "nationwide driver education campaign" to deal with the problem in its July 1980 preliminary comments on NHTSA's initial defect determination and said it would be willing to participate in such a program. However, NHTSA's reply provided no response to this offer.

The possibility of some type of warning device was first proposed in the NHTSA Administrator's October 3, 1980, memorandum to the Secretary recommending a final defect determination. In that memorandum, the Administrator raised the possibility of negotiating a settlement involving placing a warning device in vehicles equipped with either of two of the transmissions included in the initial determination while ordering a recall of vehicles equipped with the other three transmission types. The Administrator explained to us that she intended the warning device to be something like a bell or buzzer that would interact with the driver's actions, not simply a warning label. Prior to the settlement negotiations, a label was apparently not considered by NHTSA.

Incident Data Analysis Lacks Statistical Validity

NHTSA uses incident reports for many purposes, including providing the foundation upon which to base its determinations to open or close a case, whether to make an initial determination of safety-related defect, and whether to proceed with a final determination. The validity of NHTSA's use of reports of component failures to meet its burden of showing the existence of a safety-related defect without showing the cause of the failures was upheld by the United States Court of Appeals for the District of Columbia Circuit in NHTSA's first litigated safety-defects case, United States v. General Motors Corporation (WHEELS), 518 F.2d 420 (D.C. Cir. 1975). In that case, the Court held that the agency could presume the existence of a defect in performance by demonstrating, through analysis of incident reports, that a significant (i.e., non de minimis) number of failures of a critical vehicle component had occurred and by showing that these failures were not attributable to

normal deterioration as a result of age and wear.[1] The following discussion does not relate to NHTSA's use of incident data in reaching determinations as to the existence of safety-related defects. Although we discuss how a statistically valid assessment of the settlement could have been performed, we recognize that the Safety Act does not require NHTSA to do this.

NHTSA used its analysis of Ford Motor Company's data base [2] of some 19,445 alleged inadvertent vehicle movement incidents as a basis for concluding in July 1985 that "the overall trend in the data of reported incidents and accidents has continued downward" and that

> "the additional data concerning incidents, accidents and fatalities tends to support earlier decisions to adopt and abide by the terms of the settlement agreement of December 30, 1980."

In responding to a NHTSA information request, Ford in May 1985 submitted its data base of 19,445 incident and accident reports involving 1966-84 model year Fords. Of these, 17,525 (90 percent) involved model years 1970-79. This data base, according to Ford, includes all the reports of alleged incidents ever received by the company for these vehicles. In preparing its July 1985 ODI staff report on the Ford transmission case, NHTSA relied heavily on this data base. According to NHTSA, it made this decision because the Ford data base was the most comprehensive available.

In its July 1985 ODI staff report, NHTSA presented charts showing numbers of alleged incidents and non-fatal accidents reported to Ford for each year from 1970 through 1984 (see p. 53). The charts showed a steady decline in both the raw numbers and the rate of incident reports per 100,000 vehicles on the road from 1980 through 1984. It should be noted, however, that whether the numbers of incidents, including non-fatal accidents, reported in each year are representative of the total number occurring in those years is unknown. This is because incident reporting to either Ford or NHTSA is completely voluntary. There is no assurance that an inadvertent vehicle movement incident will be reported once it occurs. Rather, the vehicle's owner not only must perceive that such an incident occurred but must (1) also know or be able to

[1] 518 F.2d at 438.

[2] The information in this data base was compiled from both Ford and NHTSA records. For a more detailed discussion of the development of this and other data bases, see appendix I.

find out who to contact and (2) be willing to invest the effort to actually make the report.

In addition, whether a vehicle owner perceives and reports a transmission problem is closely related to the effect of publicity. NHTSA and the auto industry generally agree that if a potential or actual problem is publicized, consumers' reports of that problem will increase. The Ford incident data, as analyzed by NHTSA, reveal an upsurge in reports from 1977 to 1980, the years in which NHTSA's investigation was being conducted and publicity about the case was greatest. (NHTSA issued consumer advisories regarding 1970-and-later model year Fords in November 1977 and August 1978. These were well publicized, as was the initial defect determination in June 1980 and the NHTSA meeting on the investigation in August 1980. In addition, Ford established a special hotline in five cities for automatic transmission problems in 1978 that drew 6,136 consumer calls in its 4 weeks of operation, 4,999 of which—81 percent—contained reports of incidents that are included in Ford's data base.) NHTSA noted in its July 1985 report that the periods of highest reporting coincided with periods of most intense publicity.

Because the data are sensitive to the level of collection effort and to publicity, they cannot be readily used to establish statistically the effect of the letter/label program. To support its contention that the trend since the settlement is downward, the agency should demonstrate that these data problems are resolved. However, NHTSA's analysis is limited to listing incidents by year of occurrence in terms of both raw numbers and incident rates per million vehicles on the road and does not take the effects of publicity and the intensity of collection efforts into account.

In addition to further analysis of Ford's incident data, NHTSA might have reviewed state accident files for possible incidents. In its 1977-80 investigation the agency reviewed about 2,000 accidents involving all vehicle manufacturers identified by Ford as possibly relating to inadvertent vehicle movement through a search of the accident reports from three states—North Carolina, Michigan, and Washington. The agency reviewed each report and found that about 10 percent were possibly relevant. In responding to the March 1985 Center for Auto Safety petition, the agency searched for fatal accidents by using its Fatal Accident Reporting System (FARS). However, NHTSA decided not to search state accident files and gave us several reasons for not doing so. One was the limited time to respond to the petition—120 days. A second reason was the time-consuming and potentially expensive aspects of reviewing the

state files in that it took more than 2 months to obtain and review information on 300 of 450 fatalities identified in the FARS fatality files and the states would expect to be compensated for searching their accident files. A third reason was the limited relative value NHTSA expected from any such search due to the lag in the states' computerizing of accident reports and the differing time periods for which states retain individual accident files.

Statistically Valid Options for a Settlement Assessment Procedure

NHTSA did not use a statistically based methodology for monitoring and assessing the settlement's effectiveness. To do this, NHTSA would have had to survey a statistically representative sample of vehicle owners both before and after the letters and labels were mailed. These surveys would be needed in order to measure the impact of the letters and labels on driver behavior and the occurrence of inadvertent vehicle movement.

Initially, a questionnaire could have been mailed to a random sample of the 22 million Ford vehicle owners before the reminder label program began. Information could have been gathered on

- whether owners typically had used the parking procedure that was to be described in the reminder label program and
- how often, if at all, vehicles had experienced an inadvertent movement incident.

This information could have been used as a baseline to describe driver behavior and the frequency of the problem before the reminder program.

After Ford initiated the reminder label program, another random sample of Ford vehicle owners could have been drawn and questionnaires mailed to them. Information could have been gathered on

- whether owners had received the original letters and reminder labels from Ford,
- whether owners had affixed the labels to their vehicles,
- whether owners had followed the parking instructions prior to and since receiving the letters, and
- how often, if at all, vehicles had experienced an inadvertent movement incident.

NHTSA could have then compared the percentage of drivers using proper parking procedures before and after the reminder campaign and the

change in the number of incidents to determine the reminder label program's effectiveness. Also, additional information on the following factors could have been determined:

- How many of the owners reported they had received and read the letters. Although Ford mailed the letters and labels, it does not know how many owners actually read the letter.
- How many owners reported actually displaying the labels.
- How many recipients believed the labels had helped change their behavior.
- Whether the reported incidents occurred in spite of their following the parking instructions.

Particularly in light of continuing reports of alleged fatalities and incidents since the settlement, NHTSA could have followed the initial questionnaires with additional periodic, randomly selected samples of the owners receiving questionnaires. Basically, the same questions as those asked by the second questionnaire would be included, but other questions could have been added. For example, additional information could have been gathered on

- whether the recipient owned the vehicle at the time of the initial Ford mailing or if it was purchased subsequent to the mailing;
- whether labels were still affixed to vehicles and, if not, why not;
- whether the owner at the time of the mailing perceived a permanent change in behavior as a result of receiving the original letter and reminder label; and
- whether alleged incidents were still being reported.

This type of information would help describe any long-term effects and owner perceptions of the reminder labels' overall effectiveness. A comparison of the survey results would provide an indication of any

- decline in public awareness of the overall problem,
- declining effects of driver behavior to safely park vehicles,
- declining numbers of vehicles with labels affixed, and
- declining reports of alleged incidents.

NHTSA Could Have Used a Modified Recall Assessment Procedure

In developing a statistically valid method for measuring the settlement's effectiveness, NHTSA could also have modified its recall audit procedures. The recall audit process is a good indicator of the impact on the public of implementing a correction to a safety problem.

On the basis of a review of manufacturers' quarterly reports to NHTSA on the number of vehicles involved in each recall and the number of these vehicles that were corrected by the manufacturer, NHTSA's Office of Enforcement selects 8 to 10 recall campaigns each year for post-recall audits. Recalls with low vehicle correction rates or apparent problems with the recall remedy are usually selected for these audits. These audits are primarily intended to determine the reasons for low response rates for obtaining corrections.

The post-recall audits are designed to be statistically reliable for identifying certain problems with recalls. The procedure includes drawing a statistical random sample each year of at least 500,000 owners of recalled vehicles nationwide. These owners receive a letter describing the recall and a questionnaire querying them on whether they had received the recall notice, whether they had taken their vehicles in for repair, and about any problems they may have encountered while getting their vehicles repaired. The letters also contain a NHTSA toll-free telephone number for reporting other problems or requesting additional information.

According to NHTSA officials, the information obtained from the questionnaires and subsequently from consumer telephone contacts has provided valuable, valid feedback for assessing the recalls' effectiveness. They stated that the audits generally reveal the reasons for the low owner response for obtaining repairs under the recall notice and also provide information for evaluating the adequacy of the recall remedy. These sources have often helped NHTSA to determine if the remedy corrected the defect, and occasionally NHTSA has identified new defects that required a second recall of affected vehicles. Finally, the post-recall audit results are transmitted to the manufacturers for their review and correction of identified problems.

NHTSA did not use its post-recall audit process to monitor the Ford transmission case. According to NHTSA officials, it was not used because the Ford transmission case is not a recall.

Fatality Data Analysis Lacks Statistical Validity

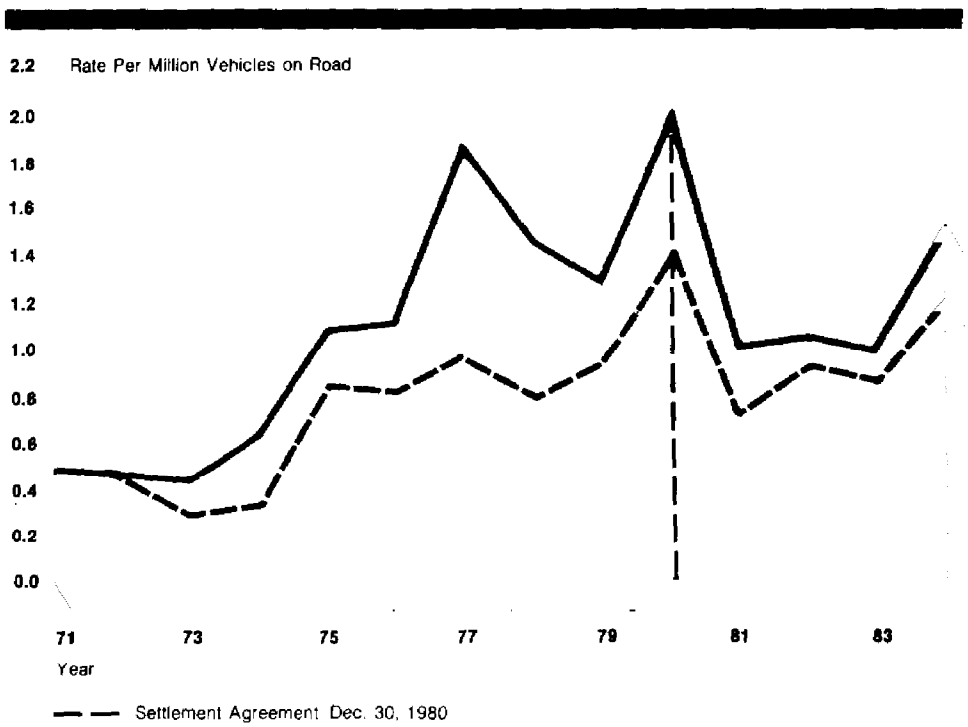
Fatalities related to inadvertent movement of Ford vehicles have occurred in every year since 1971. There have been 20 or more fatalities reported in each year since the settlement through 1984, the last full year for which data were available at the time of our analysis. In that same period, the number of 1970-79 Fords on the road declined by 25 percent, from 22 million to 15.8 million. Fatal accidents continued to be

reported in 1985. Although, through 1984, 175 fatalities had been linked to inadvertent movement of 1970-79 Ford vehicles to hold or engage in park and another 77 may have been linked to that phenomenon, the fatality data's sensitivity to small changes in the number of fatalities in any one year limits their usefulness in any statistically valid analysis of the settlement's effectiveness. The available fatality data, however, indicate that the rate of fatalities due to inadvertent vehicle movement has not declined overall.

In responding to a March 1985 petition by the Center For Auto Safety to reopen the Ford case, NHTSA developed a new process for evaluating fatality reports. The process involved convening a panel of three ODI staff engineers to reassess all fatality cases on file. (Ford and other automobile manufacturers were evaluated the same way.) The panel considered the available facts for each case and came to a consensus on whether the case was definitely related to inadvertent vehicle movement ("yes"), possibly related ("possible"), or definitely not related ("no"). Of the 329 cases occurring through 1984 and involving 1970-79 Ford vehicles, 175 were judged to be "yes," 77 were "possible," and 77 "no." Once the "no" cases have been sorted out, there is more assurance that the remaining fatality cases are representative of inadvertent vehicle movement than are incident cases, which have not been evaluated.

On the basis of our analysis of NHTSA's statistics, the fatality rate data show no overall decline. Figure 3.1 shows the fatality rate for 1970-79 Ford vehicles for each year from the first year in which a case occurred, 1971, through the end of 1984, the last full calendar year. The rate is expressed as the number of reported fatalities per million vehicles on the road and is based on NHTSA's count of 175 "yes" fatalities and 77 "possible" cases. The graph shows a gradual increase for the overall period 1971-84. Within that period, there is a decline in 1981 (the year that the letters and labels were issued) and an increase from 1981 through 1984.

Figure 3.1: Reported Fatalities Per Million Vehicles on the Road Occurring Between 1971 and 1984 Involving 1970-79 Fords[a]



[a]The top line indicates fatality reports judged by NHTSA to be definitely "yes" or "possible" Ford inadvertent vehicle movement incidents. The bottom line indicates only those fatality reports judged by NHTSA to be definitely "yes" Ford inadvertent vehicle movement incidents.

Source: Prepared by GAO from NHTSA fatality records.

Table 3.1 depicts the same data but shows raw numbers of reported fatalities by year in which the fatality occurred, estimated number of vehicles on the road, and the rate of fatalities per number of vehicles on the road.

Table 3.1: Reported Fatalities Involving 1970-79 Fords Judged by NHTSA Definitely or Possibly Related to Inadvertent Vehicle Movement

Year	Number of reported fatalities	Estimated vehicles on the road (millions)	Fatalities per million vehicles on the road
1971	1	2.08	0.48
1972	2	4.39	0.46
1973	3	7.02	0.43
1974	6	9.74	0.62
1975	13	11.98	1.09
1976	15	13.68	1.10
1977	29	15.88	1.83
1978	26	18.12	1.44
1979	26	20.42	1.27
1980	44	22.27	1.98
1981	21	20.96	1.00
1982	22	19.40	1.13
1983	20	17.66	1.13
1984	24	15.81	1.52

Source: Prepared by GAO from NHTSA fatality records and NHTSA estimates of vehicles on the road.

Caution should be exercised in interpreting the graph in figure 3.1. While it is safe to say that the graph shows no overall decline in the fatality rate over the years, it is more difficult to attach significance to specific variations that occur each year. For example, data points on the graph for the earlier years may be low since NHTSA did not actively collect fatality reports until 1977.

The graph is also affected by the general delay, or lag, between the time a fatal accident occurs and the time it is reported to NHTSA. For any given case, a fatality may be reported within days or it may take several months or even years for NHTSA to hear about it. The average lag for all alleged Ford inadvertent vehicle movement fatalities on file with NHTSA is 2.6 years. However, this figure includes fatal accidents occurring as early as 1971, which have a "built-in" lag since NHTSA did not begin actively collecting these data until 1977. When the average lag in reporting fatalities is computed for cases occurring since NHTSA's investigation began in 1977, the lag is reduced to 1.7 years. Although it is possible that additional fatalities could be reported for any of the years shown on the graph, the lag in reporting is most likely to affect recent years. Fatality rates for 1983 and 1984 are the most likely to be underreported.

Potential problems with the fatality data in the earlier years and the fatality reporting lag for recent years make the graph particularly difficult to analyze. This is because the fatality rate is quite sensitive to small changes in the number of reported fatalities. For example, the addition of one fatality in 1971 causes the fatality rate to double while an increase in two fatalities in 1984 causes the rate to increase by 8 percent.

Recognizing these difficulties in analyzing the graph too finely, the sudden drop in the rate of fatalities from two per million vehicles on the road in 1980 to one fatality per million in 1981 still may be noteworthy. Since 1981 was the year when letters and labels were mailed to Ford owners reminding them of the danger of improperly parking their vehicles, it is possible that these letters and labels decreased the fatality rate. It is also possible that this program had no effect on the fatality rate because, according to NHTSA's fatality statistics, all automobile fatalities declined from 1980 to 1981. Given that no study was done of the effect of the letters and labels, it is not possible to determine a direct relationship between the letter/label program and the 1981 decline in fatalities. However, the information available shows that fatalities continue to occur and that the absolute rate of fatalities has shown no overall decline in the years after the settlement.

Reports of Fatalities Involving Other Vehicles Are Relatively Fewer Compared With Those Involving 1970-79 Fords

Inadvertent vehicle movement is possible in all makes of automobiles equipped with automatic transmissions. Accordingly, we were asked to examine whether the problem is significantly worse for 1970-79 Fords than for other vehicles, such as automobiles manufactured by other companies or post-1979 Fords. Our analysis of NHTSA's data shows there are more incidents and fatalities reported for 1970-79 Fords than for vehicles of other manufacturers or for later model year Fords.

Non-Ford Inadvertent Vehicle Movement Incidents and Fatalities

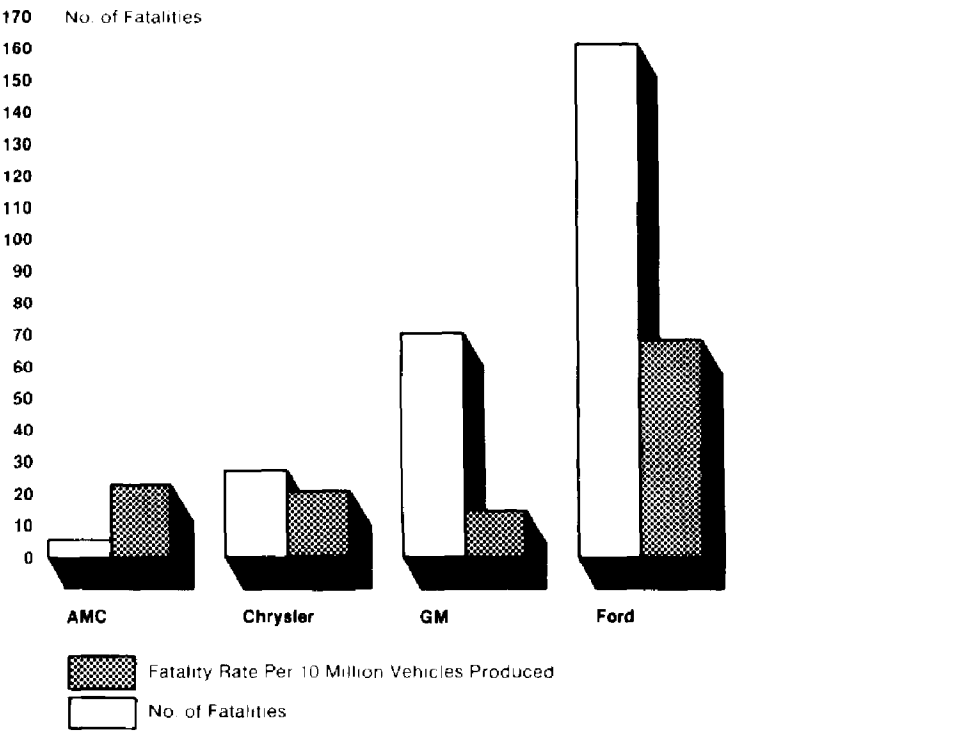
NHTSA has collected reports of incidents and fatalities on all manufacturers' vehicles since the time of its initial Ford transmission investigation. However, not all of these reports have been evaluated in the same way. In 1985, when NHTSA used a three-member panel to review all Ford fatalities ever reported, the same three-member panel was used to evaluate non-Ford fatalities so that the results of the evaluation could be comparative. However, NHTSA evaluated only non-Ford fatalities that had been reported after the settlement agreement with Ford was

reached. NHTSA told us that it would be "unfair" to consider non-Ford fatalities reported before the settlement, since that was not "new" information.

Fatality Reports

As of June 27, 1985, NHTSA had on file 162 fatality reports on 1970-79 Fords that have been received since the settlement and evaluated as either "yes" or "possible." For these same parameters (1970-79 model year reports received by NHTSA after the settlement and evaluated "yes" or "possible"), GM had 71 reported fatalities, Chrysler had 27, and AMC had 6. When the total numbers of 1970-79 model year vehicles are factored in, the rate of reported fatalities per number of vehicles produced is 4.5 times greater for Ford than for GM, 3.2 times greater for Ford than for Chrysler, and 2.5 times greater for Ford than for AMC, based on the reported fatalities for each manufacturer. (See fig. 3.2.)

Figure 3.2: Comparative Reported Fatality Numbers and Rates, 1970-79 Fords and Non-Fords



Ford has argued that its figures are higher because of publicity about the case and report collection efforts limited to Ford vehicles. As a

result, in Ford's view, a greater proportion of the total number of Ford, as opposed to non-Ford, fatalities actually occurring will always be reported. This will produce data indicating a higher rate of reported fatalities for Ford than for other manufacturers. Ford believes, however, that no reliable evidence exists that would suggest that unexpected movement is significantly more likely to occur in Ford vehicles.

In 1985 NHTSA did a limited "survey" of its Fatal Accident Reporting System to try to correct this possible bias.[3] Since fatalities are reported into the FARS by state agencies, NHTSA believes they should be less likely to be affected by any possible tendency to more fully report one manufacturer than another. However, Ford believes that FARS, like other accident data, is subject to the biasing effect of publicity. The FARS search identified 70 fatalities for Ford, 51 for GM, 18 for Chrysler, and 6 for AMC. These numbers were reported in the July 1985 staff report. After factoring in the sizes of each manufacturer's vehicle population, NHTSA concluded that

"the FARS database, which is unbiased and which should not be affected by publicity, shows twice as high a rate of fatalities for Ford as it does for General Motors."

Incident Reports

Incidents, as well as fatalities, have been reported for non-Fords as well as for Fords. In its July 1985 ODI staff report, NHTSA listed a total of 748[4] reports that have been received by NHTSA since the settlement by consumers of alleged inadvertent vehicle movement incidents on 1970-79 Fords. For the same period, NHTSA reported 118 alleged incidents involving 1970-79 GM, 50 involving 1970-79 Chrysler, and 14 involving 1970-79 AMC vehicles.

Having presented both the FARS survey of fatalities as well as these figures for incidents, NHTSA concluded that

"The number of reported incidents, property damage, injury, and fatal accidents involving 1970-79 model year Ford vehicles continue to be disproportionately higher than the number of such reported events for peer 1970-79 GM, Chrysler, and AMC vehicles."

[3]FARS is discussed in more detail in appendix I.

[4]In our August 1, 1985, testimony, we referred to NHTSA's data base as containing approximately 1,700 entries. Only 748 of those entries were alleged incidents involving 1970-79 Fords.

Post-1979 Model Year Fords

In 1980 Ford made several design changes to its automatic transmissions that it said were design refinements intended to make shift-lever movement "more pronounced," it said, in order to help drivers notice when they fail to complete a shift into park. NHTSA, however, in its 1980 ODI investigative report, said these changes were intended to correct a defective design in the earlier transmissions and not merely added as a driver aid. Although we did not attempt any engineering analysis of the design changes, we did review the comparative numbers of fatal accident reports on file at NHTSA for 1970-79 model year Fords versus 1981-84 model year Fords.[5]

As of June 27, 1985, NHTSA had on file 259 fatality cases involving 1970-79 model year Fords that had been judged to be either "yes" or "possible" inadvertent vehicle movement fatalities. Only four cases had been reported and counted as "yes" or "possible" on 1981-84 Fords. When the total numbers of vehicles produced for these two sets of model years are factored in, the reported fatality rate for 1970-79 Fords is greater than the rate for 1981-84 Fords.

Certain factors, however, may exaggerate any disparity between the two groups of vehicles. The 1970-79 vehicles have been on the road longer than the 1981-84 vehicles and thus would have had greater occasion to display inadvertent vehicle movement simply because they are older. Furthermore, the lag in reporting fatalities, discussed above, would also tend to constrict the number of fatality cases reported on the most recent model year vehicles since it has taken, on average, 1.7 years for a fatality to be reported to NHTSA. For example, a fatal accident occurring in a 1974 Ford's first year of operation would probably have been reported to NHTSA by now, whereas a fatality occurring in a 1984 Ford's first year of operation may not yet have been reported.

[5]The design change was made in the middle of the 1980 model year, making it difficult to determine which 1980 vehicles reflect the change. Thus, 1980 vehicles were not considered for this comparison.

Conclusions and Recommendations

Although a settlement agreement was reached between Ford and DOT in 1980, whether DOT's expectations of significantly reducing incidents and fatalities has been achieved is unknown because of statistical limitations in the analyses of both the incident and fatality data. NHTSA and Ford have, however, met their responsibilities under the settlement agreement. NHTSA has also taken actions, primarily at the urging of interested parties, to monitor the Ford transmission case. Furthermore, NHTSA has taken actions to investigate fatalities and inform the public about preventing inadvertent vehicle movement. NHTSA's fatality data, however, show no overall decline in the years after the settlement.

NHTSA and Ford Have Met Their Responsibilities and Commitments

As explained in detail earlier, the settlement agreement between Ford and DOT of December 30, 1980, required Ford to mail out letters and reminder labels to all owners of record of 1970-79 Ford vehicles. In return, NHTSA would close its investigation of Ford transmissions. Ford initiated a mailout program in March 1981 and completed it in May 1981. On May 4, 1981, NHTSA formally closed its investigation. Thus, both NHTSA and Ford met the specific requirements established by the settlement agreement.

NHTSA has also taken action regarding the various commitments it has made since the settlement. It made a commitment to the court in 1982 to continue to "monitor" the Ford case and has done so by periodically requesting incident and fatality data from Ford and by keeping track of incident and fatality reports received from all sources. NHTSA has monitored the agreement, primarily through correspondence with Ford. Most of the letters appear to have been prompted by sources outside NHTSA, such as petitions by the Center for Auto Safety or inquiries from a congressional subcommittee. The letters solicited reports of transmission-related incidents and fatalities not previously forwarded to NHTSA. NHTSA has maintained data bases of all reported incidents and fatalities involving both Fords and non-Fords and has periodically analyzed that information.

In a July 1983 hearing before the Subcommittee on Telecommunications, Consumer Protection, and Finance, House Committee on Energy and Commerce, NHTSA pledged to investigate new fatality cases. Since January 1984 NHTSA has investigated all newly reported fatality cases involving Ford vehicles in which the case file did not provide sufficient information for NHTSA's engineers to evaluate whether the case was related to inadvertent vehicle movement.

During the July 1983 hearing, NHTSA also said it would do more than it had been doing since the settlement to disseminate consumer information about the problem as it applies to all vehicles. In keeping that commitment, NHTSA has issued several nonmanufacturer-specific press releases, beginning in October 1984, and has revised the language used in responding to auto safety hotline inquiries and complaints to urge consumers to follow the precautions on the Ford reminder label.

Inadvertent Vehicle Movement Incidents Are Not Unique to 1970-79 Model Year Ford Vehicles, but Reported Fatality Data Are Relatively Higher for These Vehicles

Accident and incident reporting has shown, in part, that inadvertent vehicle movement incidents are not limited to 1970-79 model year Ford vehicles. Incidents and fatalities have been reported to NHTSA involving GM, Chrysler, AMC, and other makes of vehicles, as well as post-1980 Fords. However, fatality data show a higher number of fatal accidents due to inadvertent vehicle movement reported for 1970-79 Fords than for any other group of vehicles.

Achievement of the Department's Expectations Is Unknown

The analyses of both the incident and fatality data lack statistical validity for assessing whether the settlement agreement has achieved DOT's stated expectations. NHTSA has attempted to use data on incidents of inadvertent vehicle movement in Ford vehicles to conclude that the occurrence of these types of incidents has been steadily decreasing since the settlement. This has led them to conclude that no further investigation is warranted. NHTSA, however, did not demonstrate that these data were statistically reliable, which would be necessary to reach its conclusion. NHTSA would have had to show that after taking the effects of publicity and the intensity of collection efforts into account, a demonstrable downward trend in reported incidents was still present. In the absence of such a demonstration, NHTSA needs additional evidence before it can discount the counter-indications from the fatality data.

NHTSA's fatality data show no overall decline in the rate of fatalities per million Ford vehicles on the road in the years after the settlement. While 20 or more fatalities have been reported each year since the settlement, the fatality data's sensitivity to small changes in the number of fatalities in any one year limits their usefulness in any statistically valid analysis of the settlement's effectiveness.

Options for Further Action

The Ford transmission case was unique in that NHTSA entered into a settlement agreement that did not involve a recall. While DOT's expectations for the December 1980 settlement agreement with Ford was to significantly reduce the occurrence of accidents, deaths, and injuries resulting from inadvertent vehicle movement, we have concluded that whether the settlement has been effective in achieving these expectations is unknown because of problems with the statistical validity of the analysis of the data. At the present time, however, the information available shows that both incidents and fatalities continue to occur and that the absolute rate of fatalities has shown no overall decline in the years after the settlement. Accordingly, the data suggest to us that NHTSA should take some further action to address the motor vehicle safety concerns involved in inadvertent vehicle movement. Several specific options are available.

One option would be to have NHTSA open a new investigation for the stated purpose of determining whether a safety-related defect exists and, if so, ordering a recall of the vehicles within the statute of limitations and providing a notice of defect to all owners of record. This option, however, has significant limitations. For example, based on the provisions of the law, NHTSA would have to open a new investigation, issue an initial determination of defect, hold a public meeting, issue a final determination of defect, and order the manufacturer to notify all owners of the defect and initiate a recall to correct the defect in those vehicles first purchased within 8 years of the notification. Such an order, however, is not self-enforcing. If the manufacturer refuses to initiate the notification and recall, NHTSA must obtain an enforcement order from a U.S. District Court. At that point, a trial de novo is held, with NHTSA bearing the burden of proving the existence of the defect by a preponderance of the evidence. Based on our review of available documentation and our discussions with both the current and former Administrators of NHTSA, the Associate Administrators for Enforcement, and the Chief Counsels, this could prove to be a formidable task that would, in all likelihood, extend over a considerable period of time. Since the number of affected vehicles still on the road drops with the passage of time as owners replace them with newer cars, any delay in implementing such a notification and recall order results in fewer vehicles being subject to the order since fewer remain in service.

A second option would be for NHTSA, alone or possibly in concert with Ford, to develop an approach to inform current owners of 1970-79 Ford vehicles of the need to employ safe parking procedures. Or, as a third

option, NHTSA could undertake a more extensive, long-term public awareness campaign than it is currently pursuing to communicate to all drivers the importance of following safe parking procedures. Models for such a campaign could be NHTSA's seat-belt-use and anti-drunk-driving campaigns. The purpose of both campaigns would be to modify driver behavior by alerting drivers to the need to put the gear selector in park, set the parking brake, and shut off the ignition before leaving the driver's seat. These options could be undertaken concurrently.

Recommendations to the Secretary of Transportation

Given the unresolved issues concerning the government's 1980 settlement agreement with Ford, we recommend that the Secretary of Transportation direct the Administrator, National Highway Traffic Safety Administration, to take further action. We have identified some options the Secretary may wish to consider; others might also be identified.

The Ford transmission case was unique in that NHTSA entered into a settlement agreement that did not involve a recall. While NHTSA could have modified its methodology for monitoring and assessing a recall's effectiveness to assess the settlement or alternatively developed another methodology, the agency did neither. Instead, in assessing the settlement's effectiveness, NHTSA used incident data without performing the statistical analysis necessary to demonstrate the data's reliability. Since NHTSA may at some future date again pursue a negotiated settlement of this type, we recommend that the Secretary of Transportation direct that the Administrator, NHTSA, establish a methodology to both monitor and assess the effectiveness of any such settlement.

Agency Comments and Our Response

The Department of Transportation accepts as essentially accurate our summary of the factual background and chronology of this case, including our acknowledgement that NHTSA has met its settlement responsibilities under the agreement. Also, the Department generally considers GAO's option that NHTSA undertake a more extensive public awareness campaign and communicate to all drivers the importance of following safe parking procedures as having merit. However, the Department does not concur in the report's criticism of NHTSA's methods of assessing the effectiveness of the notification letter and reminder label campaign. It believes our criticism is unrealistic and that NHTSA's assessment was based on the best evidence available.

Regarding the Department's criticisms, we found the Ford transmission case to be unique. It was the largest case ever investigated by NHTSA,

involving thousands of hours of staff resources, and taking over 3 years to complete. The investigation identified more reported incidences of accident, death, and injury than any alleged defect in the history of the agency. This investigation resulted in an initial determination of a safety-related defect. However, rather than make a final defect determination, the Department negotiated a settlement with Ford with the stated expectation that the settlement would significantly reduce the incidence of accident, death, and injury resulting from unexpected vehicle movement. Therefore, in our opinion, the Department was responsible for measuring the settlement's effectiveness. We found, however, that NHTSA has not performed the statistical analyses necessary to measure the settlement's effectiveness. Also we found that while the incident data showed a decline in the rate of incidents since the settlement, the fatality data showed no overall decline in the rate of fatalities over the same period.

We continue to believe that the way to judge the settlement's effectiveness is through a statistically valid comparison of incident and fatality ratios before and after the settlement. Since this type of analysis was not done, the effectiveness of the settlement, in our opinion, is unknown.

The Department also commented that it believes our report recognizes that NHTSA's 1985 decision not to open a new investigation in response to the Center for Auto Safety's petition was reasonable. Concerning the reasonableness of NHTSA's 1985 decision on the Center for Auto Safety's petition, we were not asked, nor did we attempt, to make any judgment about that petition. Therefore, NHTSA's assertion of our support for that decision is unfounded. More specific responses to the Department's detailed criticisms are contained in appendix V, which also contains the full text of the Department's comments.

Ford believes the report makes significant strides in putting many aspects of the Ford transmission case into proper perspective but disagrees with some of our observations. Ford states that (1) NHTSA never concluded that there was a defect, (2) NHTSA's records provide no basis for such a conclusion, and (3) the phenomenon of unexpected vehicle movement is experienced in all automatic transmission-equipped vehicles. Based on these premises, they believe that GAO's addressing the issue of the effectiveness of the Ford Owner Reminder Program in remedying a condition not peculiar to Ford vehicles was incongruous. Ford also recognizes, however, that we were directed to examine NHTSA's actions to monitor the settlement's effectiveness. In addition, Ford endorses our option of a public education campaign to communicate to

all drivers the importance of following safe parking procedures as a means of preventing inadvertent vehicle movement incidents. Ford, however, strongly disagrees with the option of a special reminder effort for 1970-79 Ford vehicle owners, and unequivocally rejects the option of a new investigation. While we have identified several options for the Secretary of Transportation, we do not endorse any one option and recognize that there may be other options the Secretary might choose. Ford's comments, and our response to its criticisms, are contained in appendix VI.

NHTSA Criteria and Methodology for Evaluating Inadvertent Vehicle Movement Fatalities and Incidents

We have reviewed NHTSA's criteria and methodology for evaluating fatalities and incidents. With regard to the fatality data, we found that no documentation was available for NHTSA's criteria and methodology used before 1985. Therefore, our discussion of early criteria and methodology is based on interviews with NHTSA officials.

Difficulties in Establishing Strict Criteria

What happens to cause an inadvertent vehicle movement incident is difficult to define and even more difficult to document. In most cases, the slipping of the gearshift mechanism into the reverse position is not actually witnessed; it can only be inferred. And unless the vehicle is in mechanical disrepair or grossly maladjusted, it is difficult to deliberately reenact such incidents since the problem occurs rarely compared with the number of times a vehicle is put into park.

For these reasons, NHTSA has had difficulty in defining exactly the types of incidents and types of vehicles that could be involved in the problem. In evaluating fatality cases, it has at different times attempted to use various specific exclusionary criteria, none of which have been completely satisfactory.

The June 1980 ODI investigative report defined a failure as "[a]ny inadvertent vehicle movement from park to reverse," yet this definition can be interpreted in different ways since it does not state whether the inadvertent vehicle movement has to be in the reverse direction or whether inadvertent movement in any direction would be included as long as the gear selector ended in the reverse position.

Ford interpreted the NHTSA definition in strict terms, concluding that only incidents and fatalities in which the vehicle was observed in a stationary position with the gear selector in park and then was observed to move backward with the engine running and the gear selector in reverse should be included. Under this narrow definition, Ford concluded that only 2,149 of the 23,428 incidents in NHTSA's original incident data base (see p. 51) met these criteria. NHTSA responded that the report's definition was not intended to describe all the possible ways in which the problem might manifest itself.

From discussions with NHTSA engineers, we found that a wide variety of actual incidents could be linked to inadvertent vehicle movement and that a precise definition of such an event is nearly impossible. For example, an inadvertent forward movement incident may result inadvertently if the car had been parked facing downhill. Vehicle movement

does not have to be rearward. NHTSA engineers also have considered it at least theoretically possible that a transmission could inadvertently shift from park through reverse and neutral to land in drive, although NHTSA engineers told us they would be more skeptical about such an alleged incident than they would be of a "park-to-reverse" incident.

Vehicle movement in any direction is not an exclusive criterion for establishing a transmission's failure to hold or engage in park; some alleged incidents involve no movement at all. NHTSA has stated that some complaints in its initial data base involved owners who had placed their vehicles in park on level ground, turned the engine off and removed the keys, and later found that their unmoved vehicles' shift levers were in the reverse position.

Until the 1985 panel review, NHTSA had not always been clear about whether it was using a wide or narrow set of criteria for judging the fatality cases it received. For example, there is some evidence that in October 1983 NHTSA appeared to automatically exclude all alleged park-to-drive fatalities, even though park-to-drive fatalities were not excluded from the original count in June 1980. However, in preparing for its July 1985 staff report, NHTSA used no automatic exclusionary criteria based on direction of a vehicle's movement or gear selector position.

Sources of Fatality Reports

NHTSA receives reports of fatal accidents from a number of sources. Some fatality reports come to NHTSA directly from consumers, but many first go to Ford and then are forwarded to NHTSA at NHTSA's request. Fatality cases submitted by Ford are then added to the NHTSA fatality data base.[1] Because the Ford transmission case has been the subject of controversy, some independent public interest groups, including the Center for Auto Safety, have also tracked cases of fatalities allegedly resulting from inadvertent vehicle movement of Fords and have submitted these cases to NHTSA. These cases, when not previously reported, are also added to the NHTSA fatality data base.

Finally, NHTSA has also periodically consulted FARS for further cases that might not have been reported through any other channel. FARS is

[1]As discussed in chapter 2, NHTSA has corresponded with Ford on 13 occasions since the settlement, usually in order to obtain new incident and fatality reports from Ford.

designed to be a universal system for reporting fatal automobile accidents on public thoroughfares. Although not bound by specific legislation, state authorities are under legal contract with NHTSA to report all fatal accidents occurring on public thoroughfares in their jurisdictions. However, the system has a number of limitations affecting its usefulness in identifying inadvertent vehicle movement fatalities. First, many alleged incidents occur in driveways, parking lots, and other nonpublic locations, since the problem begins with a driver attempting to park and exit the vehicle. Fatalities occurring on nonpublic thoroughfares are not reported through FARS. Furthermore, FARS has been in existence only since 1975 and, therefore, cannot track fatalities occurring before that time. In fact, as a practical matter, the supporting data can be obtained only for fatal accidents occurring within the most recent 3 calendar years, since the states do not generally retain accident records for more than 3 years. Lastly, the system cannot be directly queried for inadvertent vehicle movement accidents; it must be searched under criteria such as "driverless vehicle striking a pedestrian," and then manually reviewed for cases that seem to show inadvertent movement. Therefore, it would be difficult to determine whether all related cases have been retrieved from the system.

Changes Over Time in NHTSA's Evaluation Methodology

In addition to the problem of establishing criteria that would adequately cover all possible manifestations of inadvertent vehicle movement, NHTSA has also made changes in the way it evaluates and keeps count of fatalities that it believes are relevant to the problem.

At the time of its initial defect determination, NHTSA counted a total of 97 fatal accidents involving 1970-79 Fords. These accidents, in conjunction with other incident statistics, were used as evidence of the seriousness of the problem being investigated and the urgency of the need to correct it. NHTSA officials told us that some 13 other fatalities had been reported but were judged not to be related to the case. However, no formal records were kept of the cases that were not included in the count of 97. One NHTSA official was responsible for maintaining the records on the cases and for making engineering judgments on them. NHTSA's legal counsel then reviewed the cases and rejected any that he believed they could not successfully defend as being related to the case. Also, any fatalities in which the victim died more than 30 days after the accident occurred were excluded, although this pertained to only a few cases. The 30-day cutoff, which is commonly used by insurance adjusters, was intended as a way to settle whether a death was actually due to the accident.

By 1983 the methodology for judging cases had evolved although no records were kept to document when any specific change came about. At this time, informal meetings were held in NHTSA's Associate Administrator for Enforcement's office, with the official in charge of maintaining the statistics presenting new cases to the informal group and suggesting how he thought they should be counted. An informal consensus would then be reached on how to judge the cases. The count of accepted Ford fatality cases by July 1983 was 158.

Excluded reports were maintained as "no" cases. A subcategory of the "no" cases was cases in which there was "insufficient detail" to determine whether the cases were related to the problem. As mentioned above, it appears that through July 1983 any case in which the vehicle was noted to have ended up in drive was automatically excluded. The criterion of including only cases in which the death occurred within 30 days of the accident continued to be used.

At a congressional hearing on the Ford case in July 1983, NHTSA used its updated analysis of the fatalities to show that a decline in fatalities had occurred since the settlement, which it contended demonstrated the settlement's effectiveness. NHTSA prepared a graph of the numbers of fatal accidents occurring in each year from 1971 through mid-1983. The graph showed a steep drop in reported fatalities from 1981 to the then-current date. NHTSA's Deputy Administrator testified that a dramatic decline in reported accidents had occurred since the May 1981 completion of Ford's notification program.

It appears that other exclusionary criteria were also considered between 1981 and 1985. For instance, evidence that a vehicle's transmission had gross mechanical problems or was clearly in a state of disrepair would be a reason for presuming that a case of inadvertent movement was due to the mechanical disrepair and not the overall design.

NHTSA has also considered whether a vehicle's driver was known to have had a high blood alcohol content at the time of the accident. In this case, the presumption is that an intoxicated driver would have been impaired from properly putting his or her vehicle into park. It appears that NHTSA has considered this an important factor when weighing evidence in fatality cases.

Also, NHTSA has considered significant the presence of children and/or pets in the front seat of a vehicle, since they may have knocked the vehicle's shift lever out of park. Again, this has been used as a factor for

consideration; there is no evidence of any time when it was used as a strict criterion for eliminating cases from the count.

In response to the Center for Auto Safety's March 1985 petition, NHTSA made major revisions to its judgment methodology. Rather than have one official continue to make initial judgments on fatality cases as they arrive, a panel of three ODI staff engineers was established to reassess all fatality cases in NHTSA's files, including those previously counted as not related to inadvertent vehicle movement. With the exception of all reported accidents in which an unattended child or animal was reportedly in the front seat at the time of the accident, the panel adopted no arbitrary exclusionary criteria but rather reviewed all the available facts for each case. According to its July 1985 ODI staff report, NHTSA defined its official count as

> "all reports of fact patterns that showed a powered reverse or rollaway where there was a basis for an inference that the driver placed or attempted to place the gearshift lever in the 'park' position."

As discussed in chapter 3, three categories of judgment were used—"yes" for cases deemed to be definitely related to inadvertent vehicle movement, "possible" for cases that possibly involved such an event, and "no" for cases judged to be definitely not related. The "possible" category corresponded to the previous "no—insufficient detail" category.

A new chart showing both numbers of fatal accidents and fatality rates per 100,000 vehicles on the road for 1966-79 Fords was included in the 1985 NHTSA staff report. The chart no longer showed any steep decline. As NHTSA notes, it actually showed an increase in 1984. However, NHTSA provided no discussion of the difference between the low numbers of reported fatalities since the settlement shown in the 1983 graph and the higher post-settlement numbers shown by the new analysis.

NHTSA Collection of Incident Data

As discussed in chapter 3, NHTSA has collected and analyzed reports of alleged inadvertent vehicle movement incidents as well as reports of fatal accidents. In addition to the Ford data base of 19,445 alleged incidents that was analyzed for the July 1985 report, NHTSA also compiled a complaint data base during the original investigation and an incident data base between 1981 and 1985.

NHTSA collected incident reports from many sources during its original investigation. Many of the alleged incidents were reported as a result of solicitation by both NHTSA and Ford. NHTSA issued two consumer advisories, on November 2, 1977, and August 29, 1978, about its Ford investigation and asked consumers to call in and report incidents. From October 1979 to April 1980, NHTSA polled all callers to its Auto Safety Hotline who owned automatic transmission-equipped vehicles to see if they had experienced "inadvertent vehicle movement" from the park position. The survey brought to light reports of 237 incidents involving Fords.

Ford itself established a special hotline for automatic transmission problems that drew 6,136 consumer calls. The hotline was initiated in September 1978 and operated for 1 month. It began with the issuance of simultaneous press releases in Atlanta, Detroit, Kansas City, New York, and San Francisco that solicited telephone calls from owners of Ford products who believed that their vehicles may have slipped from park to reverse while the engine was running. Of the 6,136 callers, 4,999 reported such an occurrence.

Reports from all sources were collected into a large computerized data base that was analyzed by NHTSA's contractor, Control Data Corporation. NHTSA reported a total of 23,428 alleged incidents involving 12,126 1970-79 model year Ford vehicles. Tallies by vehicle model and type of incident (accident, incident, injury, or death) were presented in ODI's June 1980 investigative report. In its preliminary comments on ODI's investigative report, Ford raised strong objections to NHTSA's total of 23,428 complaints, saying the complaints were generally unverified and for the most part irrelevant to the investigation. Strictly applying the June 1980 report's definition of inadvertent vehicle movement, Ford came up with a count of 2,149 alleged incidents, rather than 23,428. In response, NHTSA had its staff manually review all incidents on file. The staff review led NHTSA to conclude that its count of over 23,000 was accurate.

Shortly after the settlement agreement, NHTSA began a new data base of inadvertent vehicle movement complaints. The original data base had been discontinued in early 1980 so that results could be tallied for the June 1980 report. The new data base was a smaller setup that was managed internally by ODI staff. All complaints received since the settlement have been logged in this data base. Inquiries and complaints about NHTSA's investigation and the settlement with Ford were entered, as well as reports of alleged incidents, accidents, and fatalities. As of July 1985, this data base contained about 1,700 entries, of which 748 were alleged

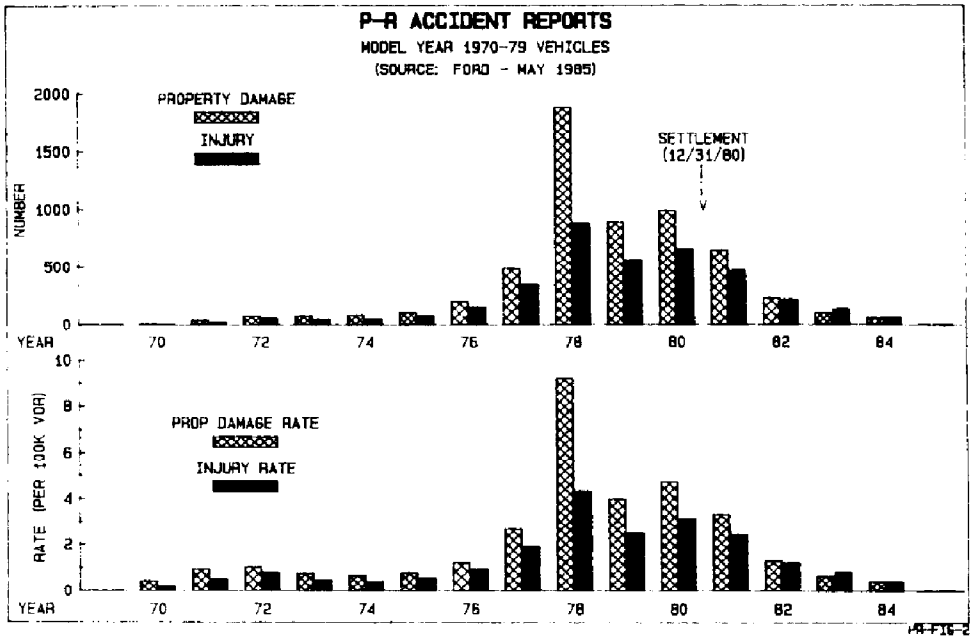
inadvertent vehicle movement incidents. NHTSA analyzed these data for its July 1985 report but relied upon its analysis of Ford's much larger incident data base in reaching its conclusions about the effectiveness of the settlement.

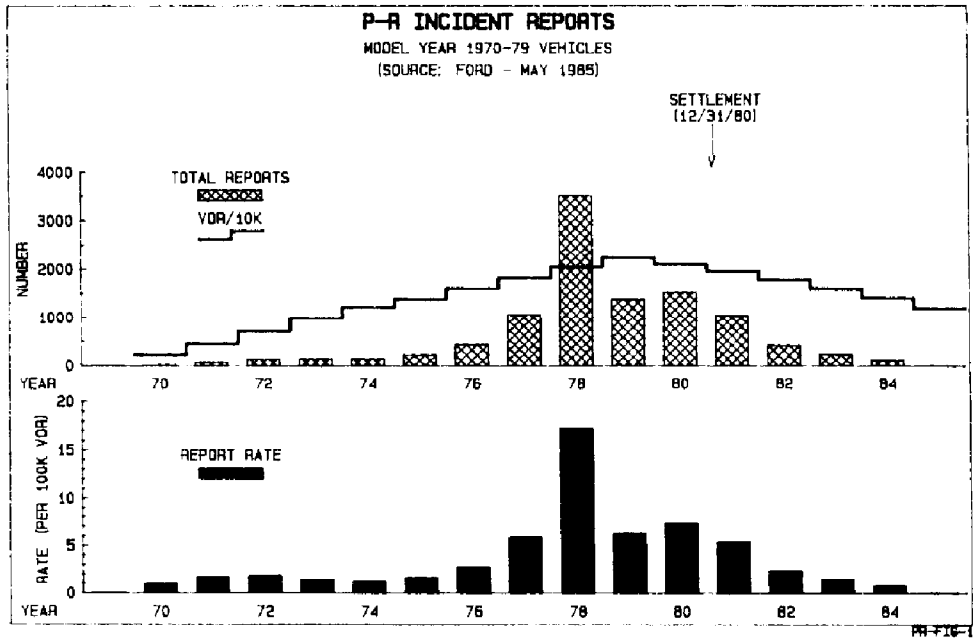
As discussed in chapter 2, NHTSA has periodically contacted Ford since the settlement to obtain updated information on alleged incidents and fatalities. The incidents reported by Ford were not included by NHTSA in the data base of 748 incidents but were tracked separately.

In May 1985, Ford resubmitted all of the incident data it had previously supplied as well as all other incident data on file in a comprehensive listing of 19,445 incidents. This data base included not only all reports ever directly received by Ford—including the 1978-79 hotline reports—but all reports received by NHTSA as well, since NHTSA had forwarded all reports it received to Ford. NHTSA did not have any comparable single data base spanning all reports ever received. In particular, the period of early 1980 through December 30, 1980, was included neither in the early data base of 23,428 nor in the post-settlement group of 748.

Ford described its 19,445-incident data base as a collection of largely unverified reports alleging unexpected vehicle movement. NHTSA analyzed the Ford data on a year-by-year basis and concluded that both the absolute number and the relative rate of reported incidents and accidents had declined in every calendar year since the December 1980 settlement. Figure I.1 is NHTSA's analysis of the Ford-compiled incident data.

Figure I.1: NHTSA Analysis of the Ford-Compiled Incident and Accident Data Presented in the July 1985 ODI Staff Report





Source: NHTSA

Scope of Vehicles Under NHTSA Investigation

When NHTSA opened its investigation in 1977, it had not yet determined the full scope of vehicles it suspected of having special susceptibility to inadvertent vehicle movement. Regarding automobiles, NHTSA issued consumer advisories mentioning only full-sized and intermediate Ford passenger cars in 1977 and 1978. However, complaints were received on smaller cars as well, so NHTSA broadened its investigation. NHTSA's initial determination of defect involved five specific transmission types—the C-3, C-4, C-6, FMX, and JATCO transmissions. Only 1970-79 Ford vehicles with these transmission types were included in the count of incidents and fatalities presented in the June 1980 report. (Ford pointed out that one fatality in NHTSA's count involved a Borg-Warner transmission. NHTSA subsequently excluded it from the count.)

In performing new analysis to respond to the Center for Auto Safety's March 1985 petition, NHTSA broadened its consideration of incident and fatality reports to include all Ford vehicles from the 1966 model year to the present time. The analysis of these reports was then presented separately for four groups of vehicles: 1966-69, 1970-79, 1980, and 1981-85 model years. The 1966-69 vehicles were assessed since the Center for Auto Safety claimed that the transmission problem extended back to the 1966 model year. Post-1979 model years were considered for comparative purposes to see whether they were substantially safer than earlier model years.

In reviewing incident and fatality statistics, we concentrated on NHTSA's 1970-79 model year data, since those were the model years covered by NHTSA's investigation.

Use of Labels by Domestic Automobile Manufacturers

We reviewed the general policies for use of reminder and warning labels by domestic automobile manufacturers since a reminder label was used in the settlement of the Ford case. We found that the four domestic automobile manufacturers—General Motors, Ford, Chrysler, and American Motors—use labels to provide operating instructions, maintenance instructions, and warning information to vehicle owners. Labels are either affixed during vehicle assembly or mailed to vehicle owners after a vehicle is assembled and/or purchased.

Labels are mailed after a vehicle is purchased, typically because of the need to replace an existing label containing incorrect information or to provide a label with more comprehensive information than contained in the original label. For example, one manufacturer mailed owners and dealers a revised label because the specific air pressures for inflating the tires were left off the original label placed on the vehicle at the time of manufacture. In another instance, this same manufacturer mailed to owners and dealers a revised label containing instructions on the use of the bumper jack. The original label contained inadequate instructions. In each instance, the revised label was accompanied by a letter to the owner or dealer explaining why a new label was being issued and where to place the label on the vehicle.

Use of Colors in Designing Labels

All four domestic manufacturers have developed their own color combinations for the labels placed on their vehicles. The color combinations used by the manufacturers differ from the color standards established by the American National Standards Institute (a nongovernmental federation of standards-using and standards-developing organizations). The color combinations are as follows.

General Motors

- Yellow is used to caution the owner about possible risk of personal injury or property damage.
- Blue is used to identify important vehicle operating information which, if ignored, could result in vehicle damage.
- Black is used to provide general operating information such as the procedure for starting the vehicle.

American Motors

- Orange is used to warn of possible property damage or personal risk.

- Yellow is used to caution the owner about possible risk of personal injury or property damage.

Chrysler

Labels used in the engine compartments of Chrysler vehicles are either white or silver letters on a black background or black letters on a white or silver background, regardless of the intent or nature of the information provided on the label. For labels used outside of the engine compartment, Chrysler has not designated the use of any particular color combinations.

Ford

A Ford official told us that the company prefers to use labels that have black lettering set on a white or silver background. Ford believes this color combination provides superior color contrast and readability.

American National Standards Institute

In 1972 the American National Standards Institute adopted the following standards.

- Red is to alert the driver of a danger of personal injury or death.
- Yellow is to caution the driver of a risk of personal injury or property damage.
- Blue is to provide the driver a notice of general operating or advisory information.

A Chronology of Public Awareness Campaign Activities

To meet its commitments to the Subcommittee on Telecommunications, Consumer Protection, and Finance, House Committee on Energy and Commerce, at the July 1983 oversight hearings, NHTSA in 1984 initiated a public awareness campaign to alert motorists to the potential hazards of inadvertent vehicle movement and to instruct them on safe parking practices. Various activities have been undertaken to reach the public and plans are underway to continue the campaign during fiscal year 1986.

Completed Public Awareness Campaign Activities

In the spring of 1983, NHTSA provided information to the American Association of Retired Persons (AARP) for an article in its publication Modern Maturity. AARP initially contacted NHTSA for information in writing its in-depth article entitled "Park or Reverse?," published in the October/November 1983 edition. NHTSA was one of several sources. The article mentions the 1977-80 NHTSA defect investigation and the subsequent June 1980 initial defect determination, describes the alleged Ford transmission defect, and discusses the controversy over Ford transmissions.

Also in 1983, NHTSA changed the language used in responding to its auto safety hotline calls and written inquiries to strongly urge consumers to follow the parking procedures listed on the Ford reminder label.

In August 1984 NHTSA contacted various consumer-oriented organizations to enlist their assistance in distributing information about the general inadvertent vehicle movement problem. Initially, NHTSA's Public and Consumer Affairs Office prepared an article entitled "It's in Park, Isn't It?" that was distributed to an estimated 4,000 weekly newspapers, the Consumer Product Safety Network Newsletter, the Journal of Traffic Safety Education, and the American Automobile Association Club Editorial Service. The article urges all drivers of automobiles with automatic transmissions to put the gear lever in park, turn off the motor, and apply the emergency brake before exiting the vehicle.

On the basis of the NHTSA article "It's in Park, Isn't It?," and further conversations with NHTSA Public and Consumer Affairs officials, three organizations wrote and published articles.

- A short article was written by the Consumer Federation of America and published in its Consumer Product Safety Newsletter in the September/October 1984 edition. The article names Ford in connection with the

alleged park-to-reverse problem. The newsletter is distributed to an estimated 1,000 consumer clubs throughout the country. These clubs also produce publications that are sent to their respective memberships.

- A brief article was written and published in the October 1984 edition of the Journal of Traffic Safety Education. Published by the American Driver and Traffic Safety Education Association, it is distributed monthly to approximately 20,000 driver education teachers and school administrators. The article, entitled "It's in Park, Isn't It?," contains basically the same information that NHTSA distributed to the association and makes no reference to Ford.
- An article in the December 1984 Club Editorial Service Kit was prepared by the American Automobile Association. The service is sent to 150 auto clubs across America with a total membership of about 25 million. The article makes reference to 183 deaths and thousands of accidents but does not identify any specific manufacturer. It also quotes NHTSA to the effect that incidents are not confined to a particular make of vehicle.

In November 1984 NHTSA's Public and Consumer Affairs Office prepared "live copy" for a public service announcement that was sent to over 1,900 radio stations targeted for use during the Thanksgiving holiday. The announcement filled a 10-second spot and reminded drivers to park their vehicles safely. It did not refer to the alleged inadvertent vehicle movement problem, or to a specific manufacturer.

In December 1984 NHTSA's Office of Public Affairs also prepared a news release that was distributed to over 4,000 weekly newspapers. The article, also entitled "It's in Park, Isn't It?," did not specifically identify Ford but, rather, urged drivers to park their vehicles safely.

On March 26, 1985, NHTSA issued a consumer advisory news release on safe driving practices that included a short message about inadvertent vehicle movement. The article was intended to alert motorists to increased traffic on the roads at certain times of the year, specifically as warmer weather approached. Again, no reference was made to a specific manufacturer.

In July 1985 another general article on inadvertent vehicle movement was written by NHTSA and sent to over 4,000 weekly publications. The article, entitled "Traffic Safety Matters," was essentially a restatement of the earlier NHTSA article about safe parking practices. NHTSA discussed the subject but made no reference to any manufacturer. The Consumer Federation of America used the "Traffic Safety Matters" article in its fall 1985 issue of the Consumer Product Safety Network Newsletter.

The summer 1985 edition of DOT's publication Transpo Topics, which has widespread circulation to state legislators and consumer groups, contained a NHTSA article alerting motorists to the potential danger of inadvertent vehicle movement. The Consumer Federation of America used the "Traffic Safety Matters" article in its fall 1985 issue of the Consumer Product Safety Network Newsletter.

In December 1985 NHTSA published a "Slim Jim" pamphlet entitled "Safe Driving Practices," which included a section on inadvertent vehicle movement. NHTSA is enclosing the pamphlet with any material mailed to consumers who ask for other highway safety literature.

NHTSA's Actions Regarding the Elderly

To inform the elderly, NHTSA initially stated in correspondence to the Chairman, Subcommittee on Telecommunications, Consumer Protection, and Finance, that it would explore inserting safe parking reminders along with social security checks to the elderly. The Administrator subsequently decided against such an insertion because of its cost.

Responses to Specific Questions Raised by Chairman Dingell

1.A

Q: What was NHTSA's specific commitment to the court to monitor the 1980 settlement between Ford and DOT? Did the settlement agreement or the court spell out any monitoring requirements?

A: This question is discussed in detail in the body of our report. (See p. 21.)

1.B

Q: What was NHTSA's specific monitoring commitment to Chairman Wirth's subcommittee? Was that commitment changed later by NHTSA? If so, how?

A: NHTSA's commitments to Chairman Wirth's subcommittee are discussed in the body of our report. (See p. 21.)

NHTSA has not rescinded any of the specific commitments made to the subcommittee. Actions have been taken to meet the commitments. (See pp. 21-23.) NHTSA has, however, clarified and somewhat narrowed one commitment it made before the subcommittee. The NHTSA Administrator stated before the subcommittee that ". . . we will be investigating all fatal accidents involving Ford transmissions." In a later communication with the subcommittee, the Administrator restated this commitment:

"I did not intend my commitment to investigate newly reported fatalities to be applied retroactively to fatalities reported before that commitment was made. Nor do I see any need to devote investigative resources to newly-reported fatalities, such as the two reported since the July hearing, where sufficient information already is available to permit their inclusion in the 'count' without further inquiry."

1.C

Q: How do these "commitments" differ?

A: The commitments made to Chairman Wirth's subcommittee are not in any way at odds with the general commitment made to the court to monitor the settlement. The commitments to the subcommittee are more extensive, however, since they include the commitment to investigate new fatality cases and to conduct a generic public awareness campaign.

1.D

Q: The GAO witness appears to be critical of NHTSA's monitoring efforts, noting that NHTSA corresponded with Ford "13 times" since May 1981, but most of this correspondence "was prompted by outside sources."

Three letters were noted by GAO as "initiated by NHTSA." The GAO criticism concerns me because I believe NHTSA must comply with such commitments. But it is not clear to me (after reading the GAO prepared statement) what GAO believes NHTSA should have done to meet each commitment. Please indicate when each letter was sent to Ford and explain what the agency failed to do to meet each so-called "commitment."

A: As we stated in our testimony, NHTSA has corresponded with Ford 13 times since the close of the investigation in May 1981. We did not intend our detailed description of the nature of these letters to show that NHTSA had failed to meet its commitment. Our purpose was to provide information requested of us. The dates and purpose of the NHTSA/Ford correspondence are as follows:

Table IV.1: Dates and Purpose of the NHTSA/Ford Correspondence

Date	Purpose
8/27/81	To obtain information to respond to a petition from Ralph Nader to reopen the Ford transmission investigation.
1/8/82	To obtain information to answer a letter from the Center for Auto Safety concerning Ford's disposition of telephone calls reporting incidents.
3/19/82	To follow up on the 8/27/81 and 1/8/82 letters requesting all correspondence and records involving incidents and to set a deadline for receipt of the information.
1/18/83	To forward a list of fatalities supplied by the Center for Auto Safety and to request an updated fatality list from Ford.
5/27/83	To obtain nonfatality data. (Initiated by NHTSA.)
8/3/83	To transmit consumer complaints received by NHTSA for Ford action.
9/23/83	To obtain documentation on fatality reports provided by Congressman Timothy E. Wirth.
3/27/84	To obtain an updated list of fatalities, personal injuries, and property damage accidents. (Initiated by NHTSA.)
10/11/84	To obtain an updated list of fatalities, personal injuries, and property damage accidents. (Initiated by NHTSA.)
12/17/84	To acknowledge receipt of additional fatal accident reports.
3/18/85	To obtain incident and fatality data to update NHTSA files and to assist in analysis of a Center for Auto Safety petition to conduct an expedited investigation.
4/8/85	To clarify the 3/18/85 request.
5/13/85	To request necessary information to complete Ford's response to NHTSA's 3/18/85 request for information.

As we noted on page 22, NHTSA has monitored the case by periodically requesting incident and fatality data from Ford and by keeping track of incident and fatality reports received from all sources.

1.D

Q: (cont.) Also, please explain what you believe the purpose of these so-called "commitments" [are] and how they differed from NHTSA's obligations under the law. Did the settlement impose new duties on NHTSA that are not already required by law?

A: In March 1982 oral arguments before the U.S. District Court of Appeals, NHTSA counsel stated that the agency would monitor the settlement agreement to assess its success. In July 1983 oversight hearings before the Subcommittee on Telecommunications, Consumer Protection, and Finance, House Committee on Energy and Commerce, the NHTSA Administrator also stated that the agency would monitor the case. We believe the purpose of these commitments was to monitor the agreement's success. However, in our view, NHTSA's methodology in monitoring has not been effective. NHTSA's commitments are consistent with its obligations under the law. NHTSA has the authority under the National Highway Traffic and Motor Vehicle Safety Act to monitor the reasonableness of a safety remedy and may, if warranted, investigate new facts about a case even if an investigation on the same alleged defect is closed. No additional duties are imposed by the settlement beyond those prescribed under the act.

2.

Q: The GAO statement notes that, in 1977, NHTSA opened an investigation because of reports of "Ford vehicles which failed to hold or engage in park resulting in the unexpected movement of the vehicle." Thereafter, GAO refers to the matter as the "park-to-reverse" case or fatalities.

2.A

Q: Does this same explanation apply to non-Ford vehicles, as well as Ford vehicles?

A: Yes. In reviewing all reports that are submitted to it by consumers, auto manufacturers, the Center for Auto Safety, and any other sources, NHTSA has used the same methodology to assess non-Ford fatality cases as Ford fatality cases. Although a variety of terms has been used to refer to what we now describe as inadvertent vehicle movement, in 1985 the same criteria were applied for both Fords and non-Fords.

2.B

Q: Does this explanation assume that in all cases the engine is running and the brake is off (or is not working effectively) and the vehicle is unattended by a licensed driver?

A: No. A commonly cited scenario involves a driver leaving a vehicle unattended with its engine running and the parking brake unapplied. However, it is possible for a vehicle to move unexpectedly after the engine has been turned off. In such a case, the vehicle will roll, either forward or backward, according to the grade of the terrain. Thus it is possible for the forward rollaways to be included in a "count" of inadvertent vehicle movement accidents. The issue of NHTSA's evaluation criteria is discussed in appendix I.

2.C

Q: Does it assume that in all vehicles (Ford and non-Ford) the failure to engage or hold in park resulted in the shift landing only in "reverse" or is it possible for it to also slide over to "neutral" or "drive?"

A: Since the reverse position is located next to the park position in a vehicle's transmission, it is most likely, according to NHTSA, that a "slip" or an improper placement of the gear in park would result in the gear's ending up in reverse. We have seen neither specific evidence that a transmission could slide over several gears into neutral or drive nor specific evidence that it could not happen. When we interviewed NHTSA engineers who judge inadvertent vehicle movement fatality cases, we were told that the engineers tend to be skeptical about cases in which a vehicle allegedly slipped from park into neutral or drive but that the engineers do not automatically assume that such cases are unfounded if other facts about the case seem to convincingly suggest that the vehicle experienced inadvertent movement.

2.D

Q: Does it assume, in all cases, that there is no human involvement?

A: The definitions used by NHTSA do not exclude the possibility that so-called "human factors" were involved in the accidents that have been reported. However, in NHTSA's only official engineering study of inadvertent vehicle movement, the agency typified Ford's 1970-79 C-3, C-4, C-6, FMX, and JATCO transmissions as "unforgiving" of driver error when shifting into park. The 1980 ODI investigative report said the designs of other manufacturers are likely more tolerant of mechanical imperfections and human frailties than these five Ford transmissions because the forces in other transmissions tend to push them in the direction of park rather than away from park and into reverse. Thus the 1980 report states that the phenomenon of inadvertent vehicle movement seems to result from a combination of design problems and human factors.

2.E

Q: What effect does the failure to hold or engage in park have on the movement of the vehicle (Ford and non-Ford) depending on the incline of the road surface? For example, in such cases, is it possible that rather than go backwards, the vehicle (even if in reverse and with or without the engine on) might go forward and injure or kill someone?

A: Yes, this scenario is possible. This situation is discussed in our answer to question 2.B and in appendix I.

2.E

Q: (cont.) Has this occurred? How often? Is that situation covered by this case? If not, why not?

A: The situation has occurred and is included in the types of possible manifestations of inadvertent vehicle movement. (See app. I.) However, NHTSA has not cataloged the hundreds of fatality cases it has on file by direction of movement of the vehicle involved. As the discussion of vehicle movement in appendix I makes clear, the direction a vehicle moved is just one data element that is considered for each case by NHTSA's panel of three staff engineers. We did not attempt to review the case files for all the fatalities on record with NHTSA and establish only the direction of movement for each vehicle involved.

3.

Q: In the GAO statement (pp. 7-8), GAO notes that prior to settlement, NHTSA developed "an extensive data base" of over "23,000 reports, involving more than 12,000 vehicles, received from Ford and from consumers." The GAO also states that after the settlement, NHTSA developed a new data base which "contains about 1,700 entries." The GAO then states:

"While we have not completed a detailed examination of these entries, we have ascertained that they consist of unverified incident and accident reports."

3.A

Q: What were the sources of the 1,700 entries and the 23,000 reports? Was Ford one of the sources?

A: NHTSA's incident data base of 23,428 reports, which was developed during the initial investigation, represented an amalgamation of reports received from various sources, including Ford. For example, some 5,000 incident reports were received by Ford through its special transmission

hotline that was established in September 1978. All of these reports are included in the 23,428.

The data base of 1,700 entries represents almost entirely consumer complaints directly to NHTSA since the settlement in December 1980. Ford has also responded to NHTSA requests for reports of alleged inadvertent vehicle movement incidents since December 1980. However, the Ford-submitted reports were cataloged separately from the data base of 1,700.

3.B

Q: What do you mean by the term "report," in regard to the pre-settlement data? What do you mean by the term "entries" in regard to post-settlement data?

A: In our testimony we did not differentiate between the terms "report" and "entries." Our report now uses the term "report" exclusively because that term is limited to reports of occurrences of inadvertent vehicle movement, while "entries" includes reports of such movement as well as other types of consumer comments pertaining to the case. All the statistics contained in the report now relate to reported inadvertent vehicle movement occurrences.

3.C

Q: Why were there more reports than vehicles involved in case of pre-settlement?

A: In arriving at the total of 23,428, NHTSA's method was to tally up the total number of actual incidents or occurrences that were reported. Thus, for example, if a consumer had telephoned NHTSA and reported experiencing three separate park-to-reverse incidents, NHTSA would have added three to its count, not just one. In cases where the consumer reported an indeterminate number of incidents (i.e., "frequently"), NHTSA recorded two incidents in its data base. Thus there are more reported incidents than vehicles involved for this particular data base. NHTSA has reported that the 23,428 incidents involved only 12,126 vehicles.

3.D

Q: Please explain to what extent all the "reports" prior to settlement were verified. If they too were "unverified," what is the significance of GAO stressing that the 1,700 "entries" were "unverified?"

A: None of the incident reports in any of the three incident data bases prior to or after the settlement has been verified. Verification involves assessing the facts about a given incident to determine if it really involved inadvertent vehicle movement. If no accurate record of all the facts involved in a given incident is available, then it is impossible to verify that incident. We did not intend to specifically single out the "1,700" data base in this regard.

3.E

Q: The July 3, 1985, "ODI Staff Report" states (p. 7) that Ford "criticized" the NHTSA pre-settlement data base "as flawed in concept and misleading because the number of actual complaint vehicles represented only about one-half of the 23,000 incidents, since complainants frequently reported multiple failures." The ODI staff report does not refute or disagree with that criticism. Presumably, ODI accepted it as valid. Is there any reason for GAO to disagree with that criticism or to be critical of the ODI staff for not refuting or disagreeing with Ford?

A: Ford's criticisms of NHTSA's pre-settlement incident data base have been extensive. Ford's criticisms were presented at the NHTSA August 1980 meeting on the Ford case (before the settlement agreement was reached in December 1980). At the time, NHTSA disagreed with Ford's criticisms, saying they were too narrowly based and took facts out of context.

Because we were asked to review NHTSA's actions since the settlement agreement was reached, we did not review in detail NHTSA's methodology in creating the 23,000 data base. Therefore, we see no reason to be critical of the ODI staff for not refuting or disagreeing with Ford in the July 1985 ODI staff report.

3.E

Q: (cont.) The issue came up at the hearing (p. 50 of transcript) as follows:

MR. PEACH. "I think it is fair to note that NHTSA never went through to try to clean up that 23,000 data base and determine the extent to which there was double counting, overcounting, or other things like that. That was an issue that was never resolved because, as I understand it, NHTSA did not try to review and clean up the data base to take care of that."

MR. BRYANT. "But that is just another way of saying they never did use their data base, isn't it? If you use the data base, you review, you clean

up, you take out what is valuable and leave behind what is not valuable; and they did not do that, did they?"

MR. PEACH. "That's right. I will give you one example—"

MR. BRYANT. "I just want to get to the point. They didn't do that, did they?"

MR. PEACH. "No."

MR. BRYANT. "In sum, they didn't use their data base, did they?"

MR. PEACH. "No."

3.E

Q: (cont.) I do not understand the GAO's apparent criticism in this reply of the ODI for not using the "23,000 data base." To what extent does ODI "review," "clean up," and "take out what is valuable" any data base for purposes of deciding whether or not to open a defect investigation?

A: The quoted dialogue can be misleading since no reference was made by either Mr. Peach or Mr. Bryant to specific time frames when certain actions either were or were not taken by NHTSA. An analysis of the "23,000 data base" was used in NHTSA's June 1980 investigative report and was presented as partial support of the initial determination of defect. However, it is true that NHTSA did not use its own data base when preparing a response to the Center for Auto Safety's petition in July 1985.

ODI, in general, does not "review, clean up, or take out what is valuable" any of the data bases it may develop for deciding whether or not to open a defect investigation. Clean-up actions are not taken since, although the data can be used independently to presume the existence of a defect, it is usually used in combination with engineering analysis and as an indicator of whether some problem that ought to be investigated exists or may exist. It is the purpose of the investigation, once opened, to determine the full extent of the problem.

3.E

Q: (cont.) I observe that, in its November 9, 1984, report to this Subcommittee on defect procedures (B-213545), the GAO said ODI depends on receipt of information "from several sources," including individual consumers, hotline calls, Members of Congress, and others. "Using this

information ODI decides to initiate an inquiry or engineering analysis based on its professional judgment." Did ODI do anything different in regard to this case?

A: Yes. In this case, ODI used a file of voluntary incident reports for a unique purpose. The incidents were plotted by the year in which they were reported, and ODI stated that "the number and rate of reported incidents, property damage and injury accidents involving 1970-79 model year Ford vehicles has declined in every calendar year since the December 1980 settlement." In our opinion, the statistical analysis of these data necessary to demonstrate conclusions about the trend was not done.

3.F

Q: Mr. Peach, in his later colloquy with Congressman Bryant (transcript, pp. 53-55), agrees that the Ford data used by the ODI staff were unverified and unverifiable. What is the significance or importance of that GAO conclusion?

A: Unverified means that there was no attempt to ascertain whether the reports on hand are records of genuine inadvertent vehicle movement incidents. As stated in our response to question 3.D, none of the incident reports in any of the three data bases has been verified.

3.F

Q: (cont.) Was the Ford data any more verifiable without work than NHTSA's data of 23,000?

A: No. Both data bases suffer from the same problem.

3.F

Q: (cont.) Did Ford suggest its data base was verified or more verifiable?

A: No. Ford described its data base as consisting of largely unverified reports or complaints alleging unexpected vehicle movement.

4.

Q: The July 12, 1985, NHTSA letter to the Center for Auto Safety states:

"The present petition, coming four years after Ford's 1981 campaign, offers the advantage of somewhat greater perspective due to the passage of time but it has not provided evidence contradicting the agency's earlier assessments or suggesting that the issues presented by case C8-02 are now any less difficult to resolve. The agency

staff has not limited its review and analysis to evidence presented in support of the petition. We requested Ford to provide very substantial new submissions, including updated incident and accident data, which Ford did provide to us. Ford's counsel also provided much information beyond that requested. In addition we requested General Motors Corporation, Chrysler Corporation and American Motors Corporation to provide information concerning their customers' experiences with so-called 'park-to-reverse' incidents in their products as well as any design changes which they might have undertaken since 1980, which they submitted to us. We have reviewed and analyzed all of this information and other sources of data which might assist us, including NHTSA's Fatal Accident Reporting System which affords an indication of accident rates free of bias due to publicity." [Underlining supplied.]

4. Q: (cont.) This statement implies, at least, that the ODI and the NHTSA Administrator did not rely solely on Ford data, but also used other data, including the Center's data. Has GAO ascertained whether or not this is true?

A: ODI and the NHTSA Administrator reviewed and analyzed data from a number of sources. Their review and analysis did not focus solely on the Ford data. However, the NHTSA analysis of the Ford data base is the only analysis that shows a steady decline in the occurrence of incidents since the settlement. It is the only support offered for the NHTSA Administrator's conclusion that "the overall trend in the data of reported incidents and accidents has continued downward."

4. Q: (cont.) If it is, then why does the GAO leave the impression, at least, that somehow ODI and the Administrator relied on Ford data to the apparent exclusion of other available data?

A: Although, as discussed above, ODI analyzed and reviewed data from more than one source in preparing its July 1985 staff report, the conclusion mentioned above that the overall trend in the data of reported incidents and accidents has continued downward is based on the analysis of the incident data base compiled by Ford. The other data analyzed and reviewed by ODI do not show a continuing downward trend.

4. Q: (cont.) Indeed, Mr. Peach, in reply to questions (transcript, p. 52) answered negatively when asked if he could find "justification" for NHTSA relying on the manufacturer's data. If NHTSA did, was that improper or inappropriate under the law?

A: The National Traffic and Motor Vehicle Safety Act of 1966 does not spell out the specific bases and parameters within which NHTSA must draw conclusions. Therefore, the law does not specifically forbid it to rely exclusively on one set of data to reach a conclusion about a safety problem. Our criticism is not an allegation of illegal conduct; it is a criticism based on our assessment of the best available method for assessing the extent of inadvertent vehicle movement incidents.

4. Q: (cont.) What data must NHTSA and ODI use under the law to decide whether or not to open a defect investigation? Did NHTSA comply with the law in this regard? Does the law require verification of such data?

A: NHTSA and ODI are not required by law either to use any specific type of data to monitor traffic safety or to verify any data. NHTSA is authorized to determine, through any appropriate means available to it, whether a safety-related defect exists. For example, under 15 U.S.C. § 1412(a), the Secretary may determine whether a defect exists "through testing, inspection, investigation, or research carried out pursuant to this chapter, or examination of communications under section 1418(a)(1) of this title, or otherwise. . . ." Accordingly, and in connection with NHTSA's reservation of its right in the settlement agreement "to take whatever action may be required under the National Traffic and Motor Vehicle Safety Act and warranted by the development of its knowledge in this matter based upon additional facts," NHTSA is authorized to track fatalities and other incidents to determine whether a defect exists.

In our draft report, we discussed the issue of "law to apply." In commenting on our draft, NHTSA pointed out the scope of its discretion is the subject of pending litigation. On April 16, 1986, the court ruled in NHTSA's favor on this issue. Accordingly, we have deleted the discussion of that issue.

5. Q: The ODI report states that the "CFAS petition emphasizes fatality data as grounds for the need for a recall, and much of the congressional (including GAO) oversight of this matter has focused on fatality data." I understand from the Center's documents and NHTSA's July 12 letter that the petition was to "initiate an expedited defect investigation," not a recall, although a recall might follow.

5.A

Q: Taking into consideration your November 1984 report to this Subcommittee, is it normal for ODI and NHTSA to rely on fatality data in deciding whether or not to initiate a defect investigation?

A: In contrast to the Ford case, most potential safety investigations involve very few reports of fatalities, if any. Normally, therefore, ODI and NHTSA do not rely solely on fatality data in deciding whether to initiate a defect investigation. See pp. 11 to 12 for a discussion of NHTSA's investigation process.

5.A

Q: (cont.) In GAO's analysis of other NHTSA defect investigations, has GAO found any where the data used covered only fatality reports? Was there less weight given by NHTSA to non-fatal incidents and accidents in those analyses?

A: NHTSA has stated that no investigation used only fatality data. The issue of how much "weight" would be given to non-fatal incidents and accidents vs. fatalities is difficult to address since the sheer numbers of incidents, accidents, and fatalities are tallied only to give an indication that a potential problem may exist and may need to be investigated. As indicated above, the Ford case did involve more fatalities than any other NHTSA investigation. It is the purpose of the engineering analysis involved in the investigation to determine the existence and nature of a defect.

5.A

Q: (cont.) Did NHTSA require that such non-fatal data be verified before NHTSA would consider the data in other investigations?

A: NHTSA has never "required" verification of any of the reports of alleged accidents, incidents, and fatalities it receives. During investigations, NHTSA may contact owners who have reported problems to ODI to better identify the scope and nature of the matter under study. That is the extent to which NHTSA follows up on reports.

5.A

Q: (cont.) How does NHTSA weigh fatality rate data in all investigations, including this case?

A: The settlement of the Ford transmission case made it decidedly different from any other case NHTSA has investigated. As stated above,

NHTSA usually uses fatality reports, along with other information, as an indicator of a potential safety problem.

In the Ford case, however, a unique situation has arisen. An investigation was carried out and an initial determination of defect made. However, no final determination of defect was made and there was no recall. Instead, a settlement was negotiated to address the agency's safety concerns. It must now be determined whether the settlement has been effective. In dealing with this question, NHTSA used an analysis of the fatality rate as an aid to settling this issue. Furthermore, NHTSA has varied the amount of attention it gives to the fatality data, concentrating on it at the 1983 hearing and then giving it less attention in the 1985 staff report.

5.A

Q: (cont.) Why then does GAO emphasize fatality data in this or any case? Do you understand, based on NHTSA practice, that fatality and fatality rate trends should outweigh NHTSA injury, accident, and incident rate trends (particularly when such trends appear to differ) when NHTSA analyzes a potential defect for investigation?

A: Although we believe that the analyses of neither the incident data nor the fatality data are statistically valid for assessing the settlement's effectiveness, our review indicates that fatality data are better substantiated than any of the available incident data. In this regard, the fatality data have been evaluated by NHTSA's three-member panel of safety engineers, whereas the incident data have not. As stated earlier, the Ford case involved more fatalities than any other NHTSA investigation.

5.B

Q: The GAO prepared statement states that in "contrast" to incident and accident reports, "fatality reports tend to have considerable documentation and independent verification." The word "tend" implies some uncertainty about the verification of such data. Was all such data verified in this case?

A: In this context, "independent verification" refers to the fact that most fatality reports include accounts by third parties—such as police or private investigators—that can provide an objective accounting of the facts in each case, which can then lead to a NHTSA evaluation of the relevance of the case. The word "tend" is used because not all of NHTSA's fatality case files contain the same amount of documentation. Some have less information than others. It is possible to track the cases that

are less well documented through NHTSA's "possible" evaluation category. "Possible" cases are those in which an absolute "yes" or "no" determination could not be made. Figure 3.1 (p. 34) shows the fatality rate trend for just "yes" cases as well as for both "yes" and "possible" cases.

5.B

Q: (cont.) What does "verification" mean in this case in regard to fatalities and non-fatalities? Does it mean the fatality was a so-called Ford or non-Ford park-to-reverse case? Please explain.

A: Verification as we have used the term refers to the process of gathering the available objective facts about a given fatal accident and then having NHTSA make an evaluation of those facts through the consensus opinion of its three-member panel.

The process has been done the same way for both Ford and non-Ford vehicles. However, NHTSA has not commissioned outside investigators to investigate any non-Ford fatal accidents. No "verification" has been done by NHTSA on alleged non-fatal accidents or incidents.

5.C

Q: The GAO prepared statement indicates that NHTSA "varied its methodologies for evaluating these cases." Please explain the old methodology. Please explain why and when NHTSA changed the methodology. Please explain the new methodology. Did this change affect the NHTSA fatality criteria? Was the change merely a change in the number and expertise of the people reviewing the data?

A: NHTSA's methodology for evaluating fatality cases has changed over time since 1980 but has never been documented. Since there is no documentation of NHTSA's evaluation methodology, we had to rely on interviews with NHTSA ODI staff to try to reconstruct how the methodology has changed over time. Thus we can only comment on features of the methodology that have been dropped or added at various times. We were unable to obtain precise indications as to when and why changes were made. Appendix I includes a discussion of the changes in methodology.

5.C

Q: (cont.) Is this so-called "new methodology" sound and an improvement over the old?

A: We believe that the recent methodology adopted when preparing the response to the Center for Auto Safety's March 1985 petition is better and an improvement over earlier methodologies for three main reasons: (1) it involves reevaluating all fatality cases on file according to the same criteria so that uniform results could be obtained, (2) all arbitrary criteria for ruling out certain types of cases from further evaluation were dropped, thus eliminating any possible bias that may have come with ruling out certain types of accidents, and (3) judgments were made through the consensus of a three-member panel, thus eliminating any possibly idiosyncratic judgments that may have been made if just one individual were judging all cases.

5.C

Q: (cont.) Will this methodology be used for all defect cases or was it developed just for this case?

A: According to NHTSA, all of the methodologies discussed above were developed specifically for the Ford transmission case and were not specifically intended for any other defect cases.

5.D

Q: The GAO statement provides that "NHTSA has never established specific criteria for judging park-to-reverse fatality reports." What is the significance of the lack of criteria at this stage?

A: If specific criteria had been developed and documented at the time of the June 1980 investigative report, those criteria could now be used as an objective basis for assessing how well NHTSA has kept track of fatality cases since then. As it is, we can comment only on the general reasonableness of NHTSA's methodology and the changes that have been made to it over the years.

5.D

Q: (cont.) Should that have been done prior to the settlement, if needed? What criteria would GAO expect NHTSA to develop?

A: We recognize that the problem of inadvertent vehicle movement is difficult to track. However, since the Ford investigation had been so extensive and received such widespread attention, we would expect that NHTSA would take extra care to develop a sound methodology for tracking the problem. We would also expect that NHTSA would have prepared written guidelines and a description of its methodology so that the agency's actions to monitor reports of fatalities could be tracked.

5.D

Q: (cont.) Does NHTSA have such criteria for other defect investigations?

A: No. Generally, NHTSA does not make judgments of the relevance of reports of alleged incidents of safety-related problems. This is because the alleged incidents are used as an indication of a potential problem. The Ford case was unusual because such large numbers of fatalities and incidents were reported and because such controversy has arisen over which reports are genuinely relevant. Thus, NHTSA attempted to judge the relevance of each alleged fatality.

5.E

Q: The GAO witness states (transcript, p. 30) that the change in methodology "was somewhat in response" to the March 6, 1985, petition of the Center. Were there other reasons for the change?

A: The latest change in methodology was undertaken as NHTSA prepared to perform analysis in order to respond to the Center for Auto Safety's March 1985 petition. No other reasons for the change were identified to us.

5.F

Q: In discussing Ford fatalities in the GAO prepared statement (p. 11), the GAO states:

"Statistics on the fatality rate for the period 1970-79 model year Ford vehicles show an overall increase for the period 1971-84, a decline in 1981, the first year after the warning letters and labels were issued, and an increase since that time."

On the other hand, the ODI report (p. 30) states that the

"number of reported Ford fatalities declined every year until calendar year 1984, when it increased slightly, thereby driving up the rate of reported fatalities as well. The complete count for 1985 is not yet available. Given the relatively small number of fatalities in any given year, statistically valid projections for future fatality trends would be difficult."

There appears to be some difference between the GAO statement (and its attached graph) and the ODI report. Please explain that difference and explain where and why GAO has a difference with the ODI. Does GAO disagree with the ODI?

A: Both sets of graphs and discussions are based on the same NHTSA three-member panel evaluation of fatality cases on file at NHTSA.

NHTSA's graphs, on which its quoted statement is based, appear as figure 6 on page 19 of the July 1985 ODI staff report. NHTSA presents two graphs, one showing numbers of reports for each year in which they occurred and one showing the rate of reporting per 100,000 vehicles on the road for each year. The reported numbers and rates are based on the combined "yes" and "possible" count for fatalities involving 1966-1979 model year Ford vehicles.

The graph and analysis presented by us are based on a subset of the data used by NHTSA. Our graph is based on the rate per million vehicles on the road for 1970-1979 Ford vehicles judged "yes" or "possible." GAO included a line in the graph representing the rate for each year for just the "yes" count as well.

The only significant difference between NHTSA's graph of the fatality rate and GAO's graph is the difference in field of vehicles represented. While NHTSA presented figures for 1966-1979 Fords, GAO chose to represent only 1970-79 Fords, since these were the vehicles originally investigated by NHTSA and covered by NHTSA's initial defect determination.

Our and NHTSA's rate graphs are very similar, as they should be. NHTSA's graph shows an even greater increase in the fatality rate from 1983 to 1984 than ours does and a less dramatic drop from 1980 to 1981. NHTSA's graph shows a very slight decrease from the 1982 rate to the 1983 rate, but shows an increase from 1981 to 1982, as well as the sizable increase from 1983 to 1984. No declining trend is apparent from this graph. NHTSA's statement that the "number of reported Ford fatalities declined every year until calendar year 1984, when it increased slightly" is based on the graph of raw numbers of fatalities rather than the graph of the fatality rate. NHTSA selectively refers to the increase in numbers from 1983 to 1984 as "slight" even though it is nearly as large as the drop from 1982 to 1983 and certainly larger than the drop from 1981 to 1982. Thus NHTSA's statement does not very thoroughly describe its graph.

We agree with the NHTSA statement that the relatively small number of fatalities in any given year makes statistically valid projections of future trends difficult. We have further concluded that the fatality data's sensitivity to small changes in the number of fatalities in any one year limit their usefulness in any statistically valid analysis of the settlement's effectiveness.

5.G

Q: Which types of fatal accidents have been classified as "yes," "no," or "possible?" What are the criteria used by NHTSA in its categorization of fatal accidents? What type of accidents were excluded? Does GAO agree that these NHTSA criteria are reasonable and sound? Were these criteria always used by NHTSA, even before 1980? Were they used for Ford and non-Ford vehicles? If not, please explain why not. Was the NHTSA review of fatalities thorough?

A: These questions are discussed in detail in appendix I, entitled NHTSA Criteria and Methodology for Evaluating Inadvertent Vehicle Movement Fatalities and Incidents.

We did not attempt to evaluate each of the specific exclusionary criteria that have been used from time to time in evaluating cases. That is because we considered these criteria to be a matter of engineering judgment. Our concern was that NHTSA's methodology be reasonable and consistently applied to all the reported cases under consideration. As described to us by NHTSA staff, the 1985 methodology, involving a three-member panel reviewing all available facts for all cases on file, appears to be a reasonable and thorough method for evaluating the cases. It appears to be more thorough and objective than previous methods. However, a specific and detailed review of the various NHTSA methodologies is impossible for us to perform, since the methodologies used before 1985 were never documented and cannot be precisely defined.

6.

Q: The NHTSA Administrator, in her August 1 statement, said:

"Our overall review of the data suggests that the 1980 changes have not significantly influenced the rate of reported incidents. It therefore does not appear from the data we have that a recall campaign, in which a mechanical alteration of the vehicles' transmissions would be attempted, promises any greater reduction of park-to-reverse incidents than has already been accomplished by Ford's 1981 notification and warning label campaign pursuant to the settlement agreement.

"No evidence presented since the date of the initial determination convinces me that a final defect determination is currently warranted or even likely if further investigation is undertaken.

The evidence also continues to support the inference that drivers who misposition their gear shift levers and who fail to take precautions such as turning off their engines and setting their parking brakes have contributed to park-to-reverse incidents. I must also note that the effect of the publicity associated with this matter continues to make judgments

concerning the differences in reported incident rates extremely difficult."

6. Q: (cont.) Please explain to what extent the GAO disagrees with these judgments or conclusions of the Administrator.

A: The Administrator states that NHTSA's review of the data suggests that Ford's 1980 design changes have not influenced the rate of reported incidents. We disagree with this statement, based on our review of NHTSA's fatality data. The fatality data show a drop in reported fatalities for the 1981 and later model years. However, we note that this disparity may be attributable to the longer period 1970-79 vehicles have been in use and the "lag time" in reporting fatalities on 1981-84 vehicles.

The Administrator goes on to conclude that a recall campaign involving a mechanical fix of the problem would not likely have a greater impact than the 1981 warning letter and label. The conclusions section of our report (see p. 42) outlines some reasons why we also think that a recall with a mechanical fix might not be effective. Our reasons, however, are based on the practical consideration of how many vehicles would actually be likely to be repaired.

We have not taken a position on whether a defect exists since we did not attempt any direct engineering analysis of the alleged defect.

The Administrator also states that evidence continues to support the notion that driver error is at least a contributory factor in the occurrence of inadvertent vehicle movement. In its June 1980 investigative report, NHTSA noted that there is some level of problem with all automatic transmission-equipped vehicles but that the Ford transmissions under investigation were less forgiving of error. We have concluded that reported inadvertent vehicle movement incidents are not unique to 1970-79 model year Ford vehicles but the number of reported incidents is relatively higher for these vehicles. In any event, it is clear that when drivers do not follow the safe parking procedures of placing their vehicles in park, setting the parking brake fully, and shutting off the ignition before leaving their vehicles, driver error could be a contributing factor to the occurrence of the problem.

We also agree that publicity associated with the matter continues to make judgment of the rate of incidents extremely difficult. In fact, we

have concluded that NHTSA's analysis of the incident data is not adequate for assessing incident rates or trends because NHTSA has not performed the statistical analysis necessary to establish statistical reliability.

7. Q: The hearing (transcript, p. 95) indicates that GAO believes that the 1980 settlement was a complete failure. I have read the GAO statement and do not find anything therein to indicate such failure. Have they indicated such a failure?

A: In the hearing, we did not take the position that the 1980 settlement was a "complete failure." On pages 46-48 of the transcript, in a colloquy with Congressman Bryant, we did agree that the settlement was "a failure in stopping people from dying." Based on further review since the hearing, we have concluded that the analyses of neither the incident data nor the available fatality data are statistically valid for assessing the settlement's effectiveness. Therefore, we believe that whether the settlement has achieved DOT's expectations of significantly reducing incidents and fatalities is unknown.

8. Q: Enclosed for your information is a copy of a September 20 article involving a non-Ford vehicle that was parked with the engine running, but without the driver, when it "apparently slipped into gear." It raises the question of the extent to which your investigation and that of the National Highway Traffic Safety Administration (NHTSA) have fully examined the issue of people leaving any vehicle unattended with the keys in the vehicle and the engine running. I know of no justification for that action. Indeed, I would like to know if such actions are lawful under state law. I note that your agency's witness did not address this issue in the preliminary report. It should be addressed in the final report.

A: According to data compiled by the National Committee on Uniform Traffic Laws and Ordinances for NHTSA, 45 states have laws prohibiting leaving a motor vehicle unattended without first stopping the engine and setting the brake. Three states—Connecticut, Maine, and Minnesota—prohibit leaving a motor vehicle unattended without setting the brake but do not require stopping the engine. Two states—Arizona and Wisconsin—do not have laws regarding leaving a motor vehicle unattended with the engine running. The District of Columbia and Puerto Rico also have laws prohibiting leaving a motor vehicle unattended without first stopping the engine and setting the brake.

Advance Comments From the Department of Transportation

Note: GAO comments supplementing those in the report text appear at the end of this appendix.

U.S. Department of Transportation

Assistant Secretary for Administration

400 Seventh St., S.W. Washington, D.C. 20590

MAR 13 1986

Mr. J. Dexter Peach
Director
Resources, Community and Economic
Development Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Peach:

Enclosed are two copies of the Department of Transportation's comments concerning the U.S. General Accounting Office draft report entitled, "Auto Safety: Effectiveness of Ford Transmission Settlement Still at Issue."

Thank you for the opportunity to review this report. If you have any questions concerning our reply, please call Bill Wood on 426-3233.

Sincerely,

Jon H. Seymour

Jon H. Seymour

Enclosures

DEPARTMENT OF TRANSPORTATION REPLY

TO

GAO DRAFT REPORT OF FEBRUARY 1986

ON

AUTO SAFETY: EFFECTIVENESS OF FORD TRANSMISSION SETTLEMENT STILL AT ISSUE
(GAO/RCED-86-52)

SUMMARY OF GAO FINDINGS AND RECOMMENDATIONS

The GAO Report finds that NHTSA has met its obligations and commitments under the terms of the settlement; that NHTSA has continued to monitor the Ford transmission case; and that NHTSA has taken steps to inform the public about preventing inadvertent vehicle movement.

The GAO Report also recognizes that the 1985 decision of the Administrator of the National Highway Traffic Safety Administration (NHTSA) not to open a new investigation of the alleged defect in Ford vehicles equipped with automatic transmissions was reasonable. Specifically, the Draft Report states that there are "several significant limitations" to the option of opening a new investigation.

While finding that NHTSA met the requirements of the settlement agreement in the Ford case, and noting that the agency undertook actions to alert the public to the inadvertent movement problem, the Draft report focuses primarily on the narrower question of whether there was an adequate statistical evaluation of the "effectiveness" of the 1980 settlement of the NHTSA investigation of alleged failure of Ford vehicles with automatic transmisions to engage or hold in Park. The report criticizes the agency's reliance on the general downward trend in incident reports, received since the settlement, as one of the basis for its decision to deny a petition to open a new investigation. GAO argues that these data did not provide a sufficient bases for a statistically valid assessment of the extent to which the notification and warning label campaign, conducted by Ford pursuant to the settlement, may have reduced the occurrence of incidents and fatalities related to the problem.

The GAO recommends "that the Secretary of Transportation direct the Administrator of NHTSA to take further action to address the effectiveness of the 1980 settlement agreement" with Ford. Among the options discussed is the opening of a new investigation (as noted above, the report recognizes that there would be significant limitations to this approach). The other option discussed is an additional public awareness campaign, beyond those NHTSA has already undertaken, to inform the public as a whole, as well as Ford owners in particular, of the importance of safe parking procedures. It makes clear that the Secretary is free to consider other options as well; but that any further action should include methods for monitoring effectiveness.

Finally, the GAO recommends that the Secretary direct NHTSA to develop a methodology which can be used by NHTSA to monitor the effectiveness of any future negotiated settlements of safety defect cases in which the settlement does not include a remedy that is specified in section 154 of the National Traffic and Motor Vehicle Safety Act of 1966, as amended.

The only methodology for monitoring effectiveness of settlements suggested by GAO is a statistically based, random survey of vehicle owner populations, to be taken before and after a settlement, to determine differences in owners' experiences with their vehicles.

SUMMARY OF DEPARTMENT OF TRANSPORTATION POSITION

The Department accepts as essentially accurate GAO's summary of the factual background and chronology of this matter, including GAO's acknowledgement that NHTSA has met its commitments under the settlement. The Department also agrees with GAO's view on "significant limitations" of the option of opening a new investigation of the alleged defect in Ford vehicles equipped with automatic transmissions, construing this as implicit approval of the reasonableness of the Administrator's recent decision not to open a new investigation.

However, the agency can not concur in the report's criticism of the agency's methods of assessing the effectiveness of the notification letter and warning label campaign, conducted by Ford pursuant to the December 1980 settlement of the original transmission investigation.

In her recent determination not to open a new investigation, the Administrator considered a number of factors in addition to the effectiveness of the settlement. These factors included: the absence of new technical evidence that might help resolve the controversy concerning the existence of a defect; the occurrence of park to reverse incidents in other vehicles; the apparent lack of a mechanical remedy if there were a defect; and the age of the remaining subject vehicles. The Administrator appropriately considered the likely outcome of any new investigation. She could not predict that a recall would result from further action or that any recall would provide safety benefits, especially considering the time and expense of litigation necessary to obtain it.

A similar assessment underlay the decision of then Secretary of Transportation Goldschmidt to settle the matter in 1980. The U.S. Court of Appeals for the D.C. Circuit upheld his decision as a reasonable exercise of prosecutorial discretion when it was challenged by the same parties who petitioned for a new investigation in 1985. Center for Auto Safety v. Lewis, 685 F.2d 656 (D.C. Cir. 1982). In its decision, the Court of Appeals observed that no final determination that the Ford vehicles contained a safety related defect was issued by NHTSA or the Secretary. It further noted that if a defect had been found and a recall ordered,

> The Department would have faced great difficulties in sustaining its burden to prove the existence of a defect, because the interaction between driver and vehicle seemed a critical factor in the transmission malfunctions.

685 F2d at 663.

While the Draft Report does not express the opinion that the Ford vehicles contain a defect, it discusses the need for assuring the effectiveness of the settlement as if a defect had been established. The Report thus disregards the legal status of the settlement, including the critical fact that no final finding of defect was ever made.

The GAO's criticism of the agency's method of assessing the effectiveness of the 1980 settlement is unrealistic. The NHTSA assessment of the Ford park to reverse incident and fatality trends, before and after the settlement, has been based on the best evidence available. The agency agrees that unbiased data from sources such as owner surveys would be desirable, because conclusions drawn from such data can be tested for statistical significance. However, such information is usually not available to NHTSA in its defect investigations.

NHTSA disagrees with the GAO Report's suggested distinction between the use of incident data to establish the presence of defects or to decide to close investigations and the use of such data to assess the effectiveness of the 1980 settlement over time. NHTSA's use of incident data has been upheld in the leading court decision interpreting the Safety Act, United States v. General Motors Corp, (WHEELS) 518 F.2d 420 (D.C. Cir. 1975) NHTSA validly uses incident data to determine the scope of alleged defects and to identify differences in potentially affected defect populations. The agency's use of incident data in its review of the recent petition seeking a new investigation of Ford transmissions was equally valid.

The Draft Report correctly observes that fatality data relating to the Ford transmission matter are, by themselves, inadequate to form a basis for assessing the effectiveness of the settlement. The Draft Report, therefore, cannot legitimately use the same fatality data to suggest that there has been no decline in the rate of fatalities related to the problem since the settlement. In fact, under appropriate assumptions, there is a statistically significant decline in the rate of fatalities when periods before and after the settlement are compared. The Draft Report should state either that more than one conclusion can be drawn from these data, or that none can be drawn.

Finally, the GAO Report, in an appendix of answers to Chairman Dingell's questions, has stated that there is "law to apply" to the agency's exercise of discretion in this matter. This

statement takes a position on an unresolved issue in litigation that is contrary to the position of the government. Center for Auto Safety v. Dole, C.A. No. 85-2861 (D.D.C.). The government's position is consistent with the latest Supreme Court decision on the question of judicial review of agency enforcement decisions, and the Draft Report's statement is inconsistent with that decision.

POSITION STATEMENT

INTRODUCTION

The Draft Report correctly describes the option of opening a new investigation in the Ford transmission matter as having "significant limitations." Many of the same limitations cited by GAO as reasons for not reopening the investigation were also present in 1980 and were significant factors in the Secretary's decision to conclude the investigation (which had then lasted for more than three years) with a settlement agreement. When the settlement was challenged, the Courts upheld it as a valid exercise of the Secretary's authority under the Safety Act, and specifically held that it was reasonable for the Secretary to have decided to settle the matter in light of the delay inherent in any litigation that would have followed a final determination, and the uncertainty of prevailing in such an action. CFAS v. Lewis, 685 F.2d 656, 663 (D.C. Cir 1982). The limitations cited in the Report are also among the reasons supporting the NHTSA Administrator's July 12, 1985 decision to deny the petition of the Center for Auto Safety and others to open a new investigation. Therefore, we concur generally in the Recommendations to the Secretary of Transportation set out at the conclusion of the GAO Report to the extent that we interpret GAO to have refrained from recommending that the NHTSA reopen the Ford transmission investigation. We likewise accept as essentially accurate GAO's summary of the factual background of this matter. (pp. 10-27).

Now on pp. 10-24.

However, we disagree with much of the body of the Report, because it mistakenly assumes that the central issue before NHTSA, during its review of this matter, has been whether the 1980 settlement with Ford has been effective.

By focusing primarily on this question, the Draft Report has failed to take into account the wider range of considerations that govern the agency's exercise of its discretion in settling defect cases. Moreover, the Draft Report appears to proceed from an erroneous set of assumptions about the agency's role and burden of proof in defect enforcement cases, and its expectations for the Ford transmission case settlement. Finally, the Report's expressed disapproval of the agency's reliance on incident reports, received primarily from consumers, is inconsistent with the most authoritative interpretations of the Safety Act and, if adopted, would impose impossible burdens on the defect enforcement program.

Some of the language found in the Draft Report suggests that the authors of the Report perceive NHTSA to have an adjudicative function which must result in a determination of defect or no defect in every case. For example, at page 12, the Report says the following:

> The formal investigation develops documentary evidence that attempts to bridge the gap between an alleged defect and the official determination that a safety-related defect does or does not exist.(emphasis added).

This perception is erroneous. Agency's determinations are not adjudicative. They are not entitled to a presumption of validity in later judicial proceedings, but the agency must gain enforcement of its recall orders by sustaining its burden of proving a defect in a trial de novo in a U.S. district court. Second the agency does not follow a practice of finding that a defect does not exist in cases that it closes. Its case closings ordinarily reflect nothing more than exercises of prosecutorial discretion in matters where the agency has considered the likely outcome of enforcement action, including allocation of its resources and fairness to consumers and manufacturers.

Thus, it follows that the agency's decision to settle a defect case is also an exercise of prosecutorial discretion in which the agency has decided to leave the ultimate question of the existence of a defect unresolved in order to obtain an immediate remedy for the problem that may be more satisfactory than the risks of further investigation and litigation. In order to obtain such a resolution, it may be necessary to accept a partial or incomplete remedy. The settlement of the Ford transmission investigation was such an exercise of discretion, and the U.S. Court of Appeals for the D.C. Circuit, as well as the U.S. District Court for the District of Columbia, has upheld the agency's action as reasonable and lawful.

The Draft Report contains no mention of the agency's general burden of proof in defect enforcement cases, and no discussion of the particular difficulties which the Government would have faced if it undertook to prove, in litigation with Ford, the existence of a defect in the Ford vehicles with automatic transmissions. These difficulties were recognized by the Court of Appeals as valid bases for the decision to settle this matter, and they would be present in a renewed investigation and enforcement action. It was therefore necessary and proper for the Administrator to consider these difficulties in her recent decision on the petition to open a new investigation.

Apparently proceeding from the incorrect assumption that NHTSA must determine whether each problem is or is not a

safety-related defect so that every defect can be remedied under the Safety Act, the authors of the Draft Report have criticized NHTSA for failing to ascertain with greater certainty whether the settlement in the Ford transmission matter has achieved significant safety benefits. As we set out more fully below, the available evidence does not permit greater certainty, and the Administrator made a reasonable decision not to reopen the investigation in light of all the circumstances.

We have included in our response a full discussion of the agency's reliance on incident data because of the implicit criticism of this reliance contained in the Draft Report and the adverse implications which this criticism might have for the agency's entire defect enforcement program. We have also included a rebuttal to the Report's analysis of fatality data in the Ford transmission matter because we believe the Report's analysis is erroneous and misleading.

We also take serious exception to a statement concerning an issue of law which appears in an appendix of answers to Chairman Dingell's questions. By stating that there is "law to apply" to the agency's exercise of discretion concerning the Ford transmission matter, the Report appears to take a position adverse to the position of the government on a threshold issue which is presently in litigation in the case of Center for Auto Safety v. Dole (C.A. No. 85-2861), now pending in the U.S. District Court for the District of Columbia. We have provided a discussion of this issue, showing why the statement appended to the Draft Report is incorrect as a matter of law.

THE GAO REPORT FOCUSSES INAPPROPRIATELY ON THE NARROW QUESTION OF WHETHER THERE SHOULD BE STATISTICAL MEANS OF ASSESSING THE EFFECTIVENESS OF THE 1980 SETTLEMENT.

See comment 1.

GAO points out that the December 30, 1980, letter signed by the Acting Secretary of Transportation stated, in part:

> "We believe this action would be likely to reduce significantly the incidence of accident, death and injury resulting from unexpected rearward vehicle movement...."

The GAO then cites uncertainty about whether DOT's "expectations" in this regard were achieved, which it attributes to statistical limitations in the incident and fatality data. NHTSA is not certain what GAO's focus on "statistical significance" in this case really means. GAO knows that NHTSA/DOT does not possess a "statistically significant" baseline survey dating from the time of the 1980 settlement. Accordingly, the "expectation" of reductions in accidents, deaths and injuries mentioned in the settlement letter did not contemplate a "statistically significant"

validation in later years. Likewise, in its July 1985 petition analysis report. NHTSA's Office of Defects Investigation (ODI) analyzed data from several sources, but attached no statistical significance to any of the data presented. This type of analysis was not unusual. In fact, we often rely on incident and fatality data that do not pass tests of "statistical significance" to indicate whether or not a defect is present. If GAO's interest in "statistical significance" is due to a preference for a data source free of bias, NHTSA would concur in the value of independent unbiased data. Indeed, the NHTSA petition analysis acknowledges this in its section regarding use of FARS data: "The FARS database is a valuable source of comparative fatality data information because it is non-biased and not influenced by publicity." At the same time, the NHTSA staff report points out that the entire fatality database (which included FARS) had limitations because of its size. A change of only a few fatalities in any year could have a great effect on the apparent annual fatality pattern. In short, if the agency was limited to considering only "statistically significant" data, it would be impossibly burdened in carrying out its responsibilities.

See comment 2.

GAO notes that: "Incidents and fatalities are, however, still being reported." (Page 10). NHTSA presumes that GAO did not intend its use of the word "however" to be read as implying that DOT believed the settlement agreement would eliminate all incidents of inadvertent vehicle movement. Such a reading would seriously overstate DOT's "expectation" as set forth in the December 1980 letter. Likewise, we would further point out that vehicle recall campaigns virtually never "eliminate" all problem incidents, in part because not all owners return their vehicles to dealers for necessary modifications.[1/] If a recall had been attempted and obtained in the transmission case,[2/] one could not reasonably have expected the success rate to have been any greater. Moreover, it now appears that such a recall would have been largely ineffective, since the presumed mechanical "remedy" for some of the subject vehicles (to install Ford's 1980 engineering changes) has now been shown not to have eliminated reports of inadvertent vehicle movement incidents.

1/ In fact, the percentage of returns averages 54% for all vehicles, and for cars 6 years and older drops to 33%.

2/ This is, at best, a questionable proposition in view of anticipated litigation with Ford's and the Court's subsequent statement that such a recall would have been difficult to uphold.

It is important to emphasize a fundamental point - the ODI staff report was prepared in response to a petition to reopen the Ford transmission investigation. As such, the report was neither expected nor required to reach a degree of certainty concerning the settlement's effectiveness. The report's introduction states that it was prepared to review the substantive information presented in support of, and in opposition to, the petition, and summarizes the results of investigative activity in response to the petition. Moreover, that report was prepared within the limited time frame required by statute (120 days). NHTSA disagrees with the suggestion that the agency might be seen as having acted improperly if it decides not to reopen a prior investigation which ended in settlement when it is unable to determine on statistically reliable data that the settlement has achieved some specified level of "success". This suggestion presupposes that a provable defect (within the meaning of the Safety Act) requiring a remedy is present in the subject vehicles. But it is also possible in such cases that there is no "defect" and that no remedy is necessary or appropriate (or obtainable under the law). This is the exactly the question which is intentionally left unresolved by the settlement.3/ The more appropriate question for the agency when faced with a petition to reopen is whether there is new evidence indicating the likelihood that a defect is present.

See comment 3.

NHTSA's decision in July 1985 not to reopen the Ford transmission investigation was based on a number of significant considerations, including the analysis of incident data presented in the July 1985 staff report. The report points out, and we trust the GAO would agree, that no new technical information was presented for consideration in 1985, beyond what had already been presented and analyzed in 1980. This does not mean, however, that the technical issues considered in the original investigation were not a factor in the 1985 decision process. Indeed, the technical issues in this case are disputed by Ford and their outcome would be difficult to predict in a new investigation. The GAO is aware of the affidavits provided by the government in the District Court

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3/ The courts have upheld the legality and utility of settlements in cases where a defect cannot clearly be shown. Center for Auto Safety v. Lewis, 685 F.2d at 662; Local 1219, AFGE v. Donovan, 683 F.2d 511 (D.C. Cir. 1982); See also United States v. Trucking Employees, Inc., 561 F.2d 313 (D.C. Cir. 1977); United States v. Allegheny-Ludlum Industries, Inc., 517 F. 2d 826 (5th Cir. 1975); Containair Systems Corp. v N.L.R.B., 521 F.2d 1166 (2d Cir. 1975).

action brought by the Center for Auto Safety in 1981, that major new investigative efforts would likely have been required had the original investigation continued.

Now on p. 23.

We presume that the GAO recognizes that its summary of the technical factors (page 26) mentions only a portion of the many factors discussed in the NHTSA's June 1980 report and Ford's presentations in response. But no new factors or theories were suggested by the 1985 petitioners, and NHTSA's review did not reveal any new developments - (with the exception of the discovery that Ford's 1980 transmission changes did not eliminate the incidents in question). In addition, it is important to emphasize that the evidence continues to support the inference that drivers' mispositioning their gear shift levers in the first place, and failing to take other essential precautions, such as turning off their engines and setting their parking brakes, have substantially contributed to many, if not most, incidents.

There were other considerations supporting NHTSA's decision not to reopen the investigation, which GAO also acknowledges, the likely refusal by Ford to comply with any recall order and the prospect of difficult and protracted litigation, including the 8-year statute of limitations under the Safety Act, and the diminishing size of the population of vehicles on the road. In addition, previous testimony has already indicated that renewed investigation into this matter would severely tax NHTSA resources and thus limit opportunities to pursue other, more promising, defect investigations. Moreover, it cannot be assumed that a new investigation would result in a final defect determination or that such a determination could be sustained in court.

See comment 4.

NHTSA COULD NOT PREDICT THAT FURTHER INVESTIGATION WOULD RESULT IN A RECALL.

An important consideration in the Administrator's July 1985 decision was the uncertainty that a new investigation by NHTSA would result in a final determination and order requiring a statutory recall; and, if so, whether the Government could prevail in an action against Ford to enforce such an order. Similar uncertainties about the Government's ability to prove a safety-related defect underlay the decision in 1980 to settle the case without making a final determination.

In upholding the reasonableness of the 1980 settlement, the Court of Appeals held that it was appropriate for the agency to consider the likelihood of expensive and protracted litigation, and the likelihood of prevailing in that litigation, in deciding to settle the case. In the court's view, Ford's response to NHTSA's investigation was also a relevant factor because it shed light on the strong resistance that could be

expected from Ford if the agency were to decide to issue a final determination that the vehicles contained a safety-related defect and the uncertainty that the government would prevail in an enforcement action. The Court is correct that great costs and delays would result from protracted litigation and uncertainty that the litigation, would be successful are valid reasons for deciding to settle a case. That 1980 decision serves to reinforce the reasonableness of the Administrator's July 1985 decision not to grant the CFAS petition.

Given the complexity of the issues involved, it was, as the D.C. Circuit found in Center for Auto Safety v. Lewis, 685 F.2d 656, 663 (D.C. Cir. 1982), entirely reasonable for the agency to estimate that it would take at least four years from the issuance of a final determination and order to complete any such litigation. Ford's responses to NHTSA's information requests since the settlement, particularly in the context of the 1985 CFAS petition, show that its resolve to resist a NHTSA order has not lessened. Accordingly, it is entirely reasonable to predict that there would be a similar delay in implementing any recall order that might have resulted from granting the CFAS petition. And, courts have upheld the reasonableness of government agencies considering resource and time factors in deciding whether to pursue an enforcement action.

Even more important, throughout the investigation and post-settlement period, Ford has put forth facts and arguments that, if presented as defenses in a civil action for enforcement, would make the result of such a proceeding uncertain. In addition to technical evidence offered to show that Ford transmissions do not perform differently from those of other manufacturers, Ford has called attention frequently to the occurrence of "park-to-reverse" incidents in other manufacturers' vehicles. This fact is of additional significance in a case where the alleged defect is not the result of a broken part or physical change in the components involved, and where the drivers' actions contribute to the reported incidents. If such incidents occur among all vehicles with automatic transmissions, albeit with differing frequency, then it is difficult to establish the extent to which the alleged defect may have been a cause. This situation is to be contrasted to the facts brought out in the recently concluded trial in United States v. General Motors Corp., U.S. D.C. for D.C. (C.A. 83-2220), (X Body brakes), where the government was able to show that incidents have occurred without regard to driver behavior and that complaints of unexpected rear wheel lockup are either nonexistent among other manufacturers' vehicles or that they have occurred in negligible numbers.

See comment 5.

NHTSA'S RELIANCE ON INCIDENT DATA IS APPROPRIATE AND CONSISTENT WITH THE SAFETY ACT.

Incident data are the basic tool for all of NHTSA's assessments of alleged safety-related defects. NHTSA's experience of nearly 20 years is that incident data based on owner complaints, received either directly by NHTSA or through other sources, including manufacturers,[4] are consistently valid indicators of the motoring public's experience. Incident reports provide the foundation upon which the agency bases its decisions whether to open or close a case, whether to upgrade an analysis to formal investigation stage, whether to make an initial determination of safety-related defect, and whether to proceed with a final determination. In addition, the number of reported incidents occurring before and after a manufacturer service campaign or safety recall have been shown to be a reliable indicator of campaign adequacy.

As the GAO report recognizes, NHTSA's reliance on incident data in reaching determinations of the existence of safety-related defects has been upheld by the United States Court of Appeals for the District of Columbia Circuit in NHTSA's first litigated safety-defects case. United States v. General Motors Corporation (WHEELS), 518 F. 2d 420 (D.C. Cir. 1975). In that case, the Court held that the agency could establish the existence of a defect in performance by demonstrating, through analysis of incident reports, that a "significant" number of failures of a critical vehicle component had occurred. The Court defined the term "significant" to mean "non de minimis," and this meaning is to be distinguished from the meaning of the term "statistically significant."[5]

4/ The Draft Report erroneously suggests (at p. 13) that the 23,000 incident reports received during NHTSA's earlier investigation all came to NHTSA either directly from owners or through state and private consumer groups. In fact, a substantial number of the reports in the data base were first received by Ford and later sent to NHTSA. Also, GAO's statement at p. 11, that NHTSA "receives" complaints over its toll-free Auto Safety Hotline (Hotline) is not entirely accurate. The Hotline operator receiving a call records the individual's name and address and a Vehicle Owner's Questionnaire (VOQ) sent to the caller for completion. Only when the completed VOQ is returned to NHTSA is it counted as a complaint "received" about a problem.

5/ Nothing in the Court's decision, or in the Safety Act, requires that the incident reports be "verified." Thus,

[Footnote continued on next page]

Now on p. 27.

It appears, however, that GAO wishes to draw a distinction between NHTSA's general use of incident data and the use of incident data in the present matter. GAO declares (page 30) that: "INCIDENT DATA, AS USED BY NHTSA, ARE INADEQUATE FOR STATISTICALLY ASSESSING THE SETTLEMENT."6/ It must again be noted that the purpose of the petition analysis was to assist in the decision whether to reopen the transmission investigation and not necessarily to make a "statistically reliable" statement concerning the effectiveness of the settlement. Furthermore, NHTSA would not agree with the narrow limitation that GAO appears to place on the use of unverified incident data.

5/ [Footnote continued from previous page]

GAO's criticism of NHTSA for not verifying incident reports has no foundation in the law. In any event, it is unclear that any verification process would be helpful in this case. Because there are no failed parts that can be pointed to as concrete evidence of a "failure", the only evidence that the transmission was in Park and moved to Reverse is in the statement of the driver. Independent verification after the fact that this happened is impossible. Likewise, other defects would in many cases be difficult to "verify", for a variety of reasons. This difficulty, as well as the amount of time that it would be needed to verify every complaint, would severely limit the number of defect cases the agency could investigate. It is obvious that, even if such verification were possible in this case, it would likely reduce the total of post-settlement incidents and fatalities as well as the pre-settlement total.

6/ Among GAO's criticisms of NHTSA's consideration of incident reports is that the ODI staff report failed to "rely" on an analysis of the 768 incident reports NHTSA had received directly, rather than the larger Ford data base. The staff report did include an analysis of those 768 complaints. However, it noted, correctly, that the number of reports received by NHTSA directly was small when compared with the Ford data base; and that it could not simply add them to the Ford data base because some of the complaints were duplicates. These are entirely valid reasons for choosing to rely on the Ford data base for conclusions about incident data. In any event, the incident trends shown by the two data bases are similar. NHTSA frequently relies on incident data received from manufacturers, and there is no showing that such reliance was improper in this case.

Incident reports are not simply indicators that a problem may exist; they are useful to help determine the scope of the alleged problem, and they are critical to the overall investigative process. NHTSA routinely conducts and relies on analyses of incident reports to assist in the assessment of an alleged problem. For example, in the recent defect investigation case involving alleged axle separations in 1978-1980 General Motors "A-Body" vehicles, an analysis of the incident data was revealed that axle shafts made at GM's Buffalo, New York, assembly plant were over-represented and the agency relied on the results of this analysis in making its initial determination of defect. Subsequently, GM conducted a notification and remedy campaign covering all vehicles with Buffalo axle assemblies. Analyses of incident reports are also used to indicate whether failures are reported to occur early (or late) in the life of a vehicle; whether incidents continue to be reported following various manufacturer programs; whether incidents are no longer reported; or other trends. Therefore, NHTSA cannot agree with the distinction that GAO attempts to draw to limit the use of incident data. Without incident data and the accompanying (non-statistical) analyses, NHTSA would be unable to discharge its statutory responsibilities regarding defects investigations and determinations, or the effectiveness of recalls.

Now on p. 29.

GAO states on page 33 that:

> " Because the [incident] data are sensitive to the level of collection effort and to publicity, they cannot be readily used to establish statistically the effect of the letter/label program. To support its contention that the trend since the settlement is downward, the agency should demonstrate that these data problems are resolved."

NHTSA would not disagree with GAO that there are limitations in the data; however, NHTSA would not dismiss their use as valid indicators. Furthermore, there is no evidence to suggest that the results of any new "statistically reliable" survey would have any results different from those indicated by the incident data, nor are there any pre-settlement statistical surveys against which to compare a new survey.

The NHTSA staff report contained an entire section regarding the effect of publicity and acknowledges its influence on the data. The GAO should appreciate, however, that this section of the report was not an adoption of Ford's contention that reported failures on Ford vehicle are attributable to "unfair" publicity. Indeed, the opposite is true - the report suggests that the disproportionate reporting of Ford transmission events is not solely attributable to publicity. NHTSA's experience has shown that periods of publicity are normally accompanied by increases in consumer reported or "publicity spikes" in the

observed reporting trends. As in most data assessments, NHTSA considers these qualitatively, since there is no known method to assess such phenomena quantitatively.

The petition analysis report clearly states that the publicity effect could not be quantified. NHTSA also notes that the post-settlement period did not have the intense publicity and data solicitation efforts that occurred during the active pre-settlement phase. Thus, the degree to which publicity influenced the post-settlement data would be expected to be less. The post-settlement time period, of course, was the period of most concern to NHTSA during its 1985 petition evaluation. NHTSA's analysis of reported incidents, accidents, and injuries (which occurred in the post-1980 period) for both pre-1980 and post-1980 vehicles, aided substantially in its conclusion that the 1980 transmission design changes did not appear to have solved the problem.[1/] This analysis should be relatively free of biases due to publicity and reporting choice. If any bias were present, it would have tended to raise the incident reports for pre-1980 vehicles, because, for example, their owners received letters from Ford in mid-1981, while owners of post-1980 vehicles did not. However, that analysis found little difference in incident/accident rates for pre- or post-1980 vehicles during the post-1980 period.

FATALITY DATA BY THEMSELVES, DO NOT PROVE WHETHER THERE IS A SAFETY-RELATED DEFECT, OR WHETHER THE 1980 SETTLEMENT WAS EFFECTIVE.

See comment 6.

GAO states that fatality data are inadequate for statistically assessing the settlement. NHTSA agrees that fatality data alone could not prove conclusively whether or not the

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1/ The Draft report implies that the ODI staff report did not recognize this difference in the numbers of incidents involving pre-1980 and post-1980 vehicles received by ODI. As a matter of fact, the report noted at page 10 that NHTSA had received "many more" reports for pre-1980 vehicles. It also pointed out, as GAO does not, that the vehicle population for the earlier vehicles is much greater - a fact which must be taken into account to make a meaningful comparison. In addition, the staff report pointed out the number of reports to ODI was relatively small compared with the number made directly to Ford. Similarly, the staff report acknowledged that fatality data also showed a decrease for the post-1980 vehicles, and noted that the FARS data showed a distinct overall reduction for the later vehicles that did not appear in the comparison of incident data.

settlement was effective, nor can they generally indicate whether a safety-related defect exists. For example, the fatality data are too small to reveal year by year differences. NHTSA's petition analysis report clearly acknowledged the limitations in the fatality data.8/ However, NHTSA must evaluate whatever data are available in its investigations and cannot limit its inquiries only to data that permit statistically significant conclusions. Even results which fail a "statistical significance" test may give indications of trends in vehicle performance. Such data may constitute relevant evidence (along with other evidence, such as incident data), although by themselves they may not prove the presence or absence of a defect. In making a decision, NHTSA accumulates and analyzes evidence from many sources.

See comment 7.

As mentioned earlier, NHTSA made no suggestion that the fatality data in this case could be used to draw statistically significant conclusions. The ODI Staff Report made every attempt to present these data in an impartial and factual way. In spite of its acknowledgement of the limitations of the fatality database, however, GAO concludes that the data indicate that the "...rate of fatalities due to inadvertent vehicle movement has not declined overall." By any objective standard, if the data cannot be used to suggest that the rate has declined overall, then the data cannot be used to suggest the contrary.

Now on p. 33.

NHTSA also believes that data can show important information, contrary to the unsupported, unqualified, GAO assessment that the data suggests that the fatality rate "has not declined overall". Using the numbers shown on page 40, and using standard statistical techniques, one can address questions like the following:

8/ While it agrees that the fatality data have limitations, NHTSA takes exception to GAO's statement that the agency has varied the amount of attention it has given to fatality data in the case, giving it less attention in the 1985 report than it did in 1983. In fact, the 1985 report contained a comprehensive section discussing the fatality information, including an analysis of the FARS data. Further, in 1983, the agency did not have available as much information on non-fatal incidents as it had in 1985 because it had not yet received the Ford data base. Had that information been available earlier, there is no reason to believe that the trend it showed would have been any different, i.e., a decline in each succeeding year after the settlement.

Question: Is the fatality rate lower in 1981-1984 than in 1977-1980?

Answer: Yes, significant at about the .98 level. The data are:

Years	Fatalities	Vehicle Years (Millions)	Rate
1977-80	125	76.69	1.63
1981-84	87	73.83	1.18

Statistical tests applied to the rates show that the chance that they are the same is about 2 in 100; in other words, one can say that the fatality rate has declined with a statistical confidence of about 98%. This analysis, of course, assumes that the data are complete for the two sets.

Now on p. 35.

GAO states on page 41 that: "Fatality rates for 1983 and 1984 are the most likely to be underreported." One could take this into account by restricting the post-settlement years to 1981 and 1982:

Question: Is the fatality rate lower in 1981-1982 than in 1977-1980?

Answer: Yes, significant at about the .98 level. For 1981-1982, the rate is 1.07 compared to the same 1.63 in 1977-1980.

In view of GAO's stated remarks about the limitations of the fatality data, and the possibly different inferences that can be drawn from these data, it is very disturbing that GAO would choose to state only that the fatality rate had not declined, and not state the other inferences that also can be drawn.

See comment 8.

GAO also improperly states the effect of reporting lag time on fatality counts. GAO reports only the average reporting lag times for all fatalities and for those occurring since the case was opened in 1977. For the post-1980 time period, however, the reporting lag time has been much less, as shown in Attachment A. It is this lag time that should be used to assess the likelihood of receiving new reports of post-1980 fatalities.

Regarding the relative number of reported Ford incidents versus non-Ford incidents, the GAO notes that "...their analysis of NHTSA's data shows there are more incidents and fatalities reported for 1970-79 Fords than for vehicles of other manufacturers or for later model year Fords." Readers of the GAO report might erroneously infer from the phrasing of the GAO report that NHTSA reported contrary findings. In fact, NHTSA

agrees with the statement, and the ODI staff report clearly recognizes this difference and discusses it.9/

See comment 9.

While the GAO statements are not inconsistent with the NHTSA findings, the GAO has attempted to quantify the degree of difference, as shown in the analysis depicted in Figure 3.2. First, NHTSA is surprised that GAO would attempt any such analysis, given its admonition to NHTSA regarding the limitations of the fatality data base.

See comment 10.

Second, the GAO analysis contains a basic flaw - that is, GAO compares fatality reports concerning Ford and non-Ford vehicles which were "received" after the settlement. Using reports "received" after the settlement, rather than those which "occurred" after the settlement, exaggerates the degree of difference between Ford and non-Ford vehicles. For example, for Ford vehicles, GAO states there were 162 reports of fatalities and apparently uses this figure to make its mathematical computations. NHTSA notes that of these 162 fatalities, only 93 actually occurred after the settlement. Of course, the same is true for non-Ford vehicles; i.e., not all reported fatalities occurred after the settlement. As pointed out earlier, NHTSA would not disagree with a general observation to this effect; however, NHTSA feels that GAO has not reported a proper comparison.

Now on p. 36.

On page 41, GAO states:

"...the sudden drop in the rate of fatalities from two per million vehicles on the road in 1980 to one fatality per million in 1981 is still noteworthy."

"...it is possible that these letters and labels decreased the fatality rate."

"It is also possible that these letters and labels had no effect on the fatality rate because, according to NHTSA's fatality statistics, all automobile fatalities declined from 1980 to 1981."

9/ In discussing the non-Ford fatality data, GAO neglects to mention that, as noted in the staff report, the FARS data showed a decline in fatalities for post-1980 GM vehicles, as well as post-1980 Fords. This suggests that the decline that took place in fatalities involving post-1980 Fords may have been attributable to a factor other than the 1980 design changes in the Ford transmissions.

NHTSA agrees that the first two of the above statements are true, but objects strongly to the third statement as seriously misleading.

The overall highway fatality trend cannot account for the change in the park-to-reverse fatality rate for 1980 to 1981. NHTSA points out that total automobile fatalities dropped 3.5% from 1980 to 1981 while the observed fatality rate which might be related to Ford park-to-reverse incidents dropped 49.5 percent. It is obvious that the national trend does not begin to explain such a large decline.

See comment 11.

In Appendix I of its report, GAO discusses NHTSA's methodology of assessing reports of fatalities possibly related to this problem. NHTSA instituted its 3-member panel review of fatal accidents in response to the 1985 petition to verify fatalities attributed to "park-to-reverse" incidents, and the agency believes that the process worked well. On the other hand, NHTSA does not believe that its earlier assessments were incorrect or that the panel process made significant differences in its assessment of the fatality data. On page 57, GAO states:

Now on p. 49.

> "At a congressional hearing on the Ford case in July 1983, NHTSA used its updated analysis of the fatalities to show that a decline in fatalities had occurred since the settlement, which it contended demonstrated the settlement's effectiveness. NHTSA prepared a graph of the numbers of fatal accidents occurring in each year from 1971 through mid-1983. The graph showed a steep drop in reported fatalities from 1981 to the then-current date."

Now on p. 50.

On page 59, GAO then states:

> "A new chart [following the NHTSA panel review of all fatal incidents] showing both numbers of fatal accidents and fatality rates per 100,000 vehicles on the road for 1966-79 Fords was included in the 1985 NHTSA staff report. The chart no longer showed any steep decline."

It is not clear whether GAO is suggesting that if NHTSA were to apply its new "evaluation methodology" to the incidents known in July 1983, the chart would not then show a steep decline; or whether GAO is stating that in 1985, the decline is not as steep as it appeared to be in 1983. NHTSA would presume that GAO meant the latter, since the former has implications with which NHTSA would take severe exception. To further illustrate this point, NHTSA has reconstructed, on a name-by-name basis, the chart presented in July 1983, along with the chart as it would appear with the present panel assessments. This chart is shown as Attachment B. It is noted that the basic shapes of the graphs are similar and that there appears to be a smaller

difference between the two approaches in the period following the settlement than in the period preceding the settlement. Of course, the 1985 ODI petition report reflected a higher fatality rate for 1983 than did the agency's 1983 chart, since additional reports for 1983 had been received by 1985.

See comment 12.

Now on p. 49.

In addition, NHTSA does not agree with all of GAO's characterizations or with the significance which GAO appeared to place on certain criteria used by the panel. For example, on page 58, GAO states:

> "NHTSA has also considered whether a vehicle's driver was known to have had a high blood alcohol content at the time of the accident. In this case, the presumption is that an intoxicated driver would have been impaired from properly putting his or her vehicle into park. It appears that NHTSA has considered this an important factor when weighing evidence in fatality cases."

The inference in the GAO's remarks is that NHTSA has excluded cases such as described above from consideration, i.e., classified such incidents as "NO" cases. This is not true. In fact, NHTSA classified such incidents as "possible" cases.10/

See comment 13.

Now on p. 27.

SURVEYS AND PRE-SETTLEMENT AUDITS, WHILE THEORETICALLY DESIRABLE, ARE OFTEN IMPRACTICABLE, AND THEIR EXPENSE PRECLUDES THEIR ROUTINE USE.

GAO notes on page 29 that during the original 1980 NHTSA investigation, there was no evidence presented to establish whether the settlement remedy would be effective in reducing incidents of inadvertent vehicle movement. NHTSA points out that such an evaluation would have meant that a letter/label campaign was a matter of consideration during the investigation. Such was not the case and, in fact, up until the settlement, ODI was still conducting engineering tests and other research to further enhance its understanding of the complex technical issues and to prepare for litigation with Ford over these issues. Furthermore, the GAO acknowledges

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10/ The GAO erroneously treats the "possible" category as coextensive with cases that have "little documentation". This is a misapprehension of the significance of a "possible" classification. Such a classification is unrelated to the amount of documentation available, but rather identifies any incident for which no definite "yes" or "no" classification could be made. NHTSA has classified even well documented cases as "possible".

Now on p. 27.

(page 30) that prior to the settlement negotiations, "...a label was apparently not considered by NHTSA". Under these circumstances, it is logically understandable why the 1980 NHTSA investigation report did not analyze the effectiveness of a letter/label solution.

Now on pp. 30 to 31.

See comment 14.

GAO has suggested (pages 34-36) some "statistically valid options for a settlement assessment procedure" consisting of "before" and "after" surveys and/or a modified recall audit. NHTSA does not debate the validity of such surveys. It considers conducting limited surveys in each of its defect investigations and, in fact, has conducted such surveys in some cases. Indeed, the NHTSA considered conducting a survey in the transmission matter following the initial determination hearing in 1980 in anticipation of the litigation that would have followed any final determinations. At that time, of course, NHTSA was still seeking evidence to determine the extent to which Ford vehicles were involved in inadvertent vehicle movement incidents and how Ford vehicles compared with their peers. Preliminary estimates of the cost to conduct that contemplated survey were so high that the program was not considered further. Even if cost were not a consideration, however, a pre-settlement survey, as GAO suggests, would pose other serious concerns. We must presume, first of all, that the parameters of the settlement have been agreed upon by the manufacturer and NHTSA before the survey. Then, the implementation of the actual solution would be delayed indefinitely until after the survey is completed. NHTSA's experience has shown that a survey of the type suggested by GAO would take nine to twelve months to complete. GAO's suggestion thus would have the effect of delaying the remedy for the vast majority of involved vehicle owners while a minority of owners were participating in the survey. Furthermore, NHTSA estimates that to conduct even a limited survey, the cost would be approximately $200,000.00, or 10 percent of the current total ODI annual budget, for each such survey. Devoting such a large share of the budget to one phase of one case would significantly impair the effectiveness of the agency's other investigations. NHTSA suggests that GAO has neglected to weigh carefully the adverse consequences of such an approach.

Now on p. 31.

Now on p. 32.

GAO also states (page 36) that NHTSA could have used a "modified recall assessment procedure" for measuring the settlement's effectiveness and attempts to describe (page 37) NHTSA's audit program as follows: "The post-recall audits are designed to be statistically reliable for identifying certain problems with recalls." This last statement is somewhat misleading. NHTSA audits are ordinarily analyzed without conducting tests of statistical significance.

NHTSA's audit process consists of mailing an audit card to each owner selected for the audit. Owners are encouraged to write to

NHTSA on the back of the audit card, or to send NHTSA a separate note or letter, regarding any continuing problems if their vehicles had the recall work completed. Audit returns are used to assist in evaluating whether there are problems in recall completion, remedy adequacy, or other areas related to the recall. In this regard, NHTSA places reliance on these data to indicate trends similar to reliance it places on other owner incident reports. From our experience, we believe that owners who have received an audit letter would be more likely to write to NHTSA about a problem (not necessarily the one involved in the recall) than an owner who did not receive such a letter. However, NHTSA believes that, even in recall audit programs, any decision to recommend further action is still largely a qualitative decision, since the audit program is not designed to produce "statistically" reliable results.

See comment 15.

THE GAO DOES NOT CORRECTLY STATE THE LAW CONCERNING JUDICIAL REVIEW OF NHTSA DECISIONS TO CONDUCT DEFECT INVESTIGATIONS.

Among the questions Chairman Dingell directed to the GAO was the following:

> 4. Q: What data must NHTSA and ODI use to decide whether or not to open a defect investigation? Did NHTSA comply with the law in this regard? Does the law require verification of such data?

Now on p. 70.

GAO's answer to this question, contained in Appendix IV to its draft report, at p. 81, states in part:

> NHTSA and ODI are not required by law either to use any specific type of data to monitor traffic safety or to verify any data. NHTSA is authorized to determine, through any appropriate means available to it, whether a safety-related defect exists....Accordingly, and in connection with NHTSA's reservation of its right in the settlement agreement "to take whatever action may be required under the National Traffic and Motor Vehicle Safety Act and warranted by the development of its knowledge in this matter based upon additional facts," NHTSA is authorized to track fatalities and other incidents to determine whether a defect exists.
>
> Since the National Traffic and Motor Vehicle Safety Act charges NHTSA with the responsibility to determine, through any means available to it, whether a safety-related defect exists, there is "law to apply" and thus NHTSA's action or inaction with regard to tracking data is not committed to NHTSA's unlimited discretion.

The first paragraph accurately states the scope of NHTSA's authority to investigate safety-related defects--that is, that

the statute authorizing NHTSA to conduct such investigations permits it to obtain and rely upon information gathered from any source. However, the second paragraph is incorrect and fails to state the law accurately.

In fact, this very issue is now before the United States District Court for the District of Columbia in Center for Auto Safety v. Dole, No. 85-2861, in which CFAS has challenged NHTSA's denial of its administrative petition to reopen the investigation into the alleged failure of Ford vehicles to engage or hold in park. In that case, the Government is asserting that the agency's decision not to reopen the investigation is committed to agency discretion by law and, hence, unreviewable. The principal support for this position is the 1985 Supreme Court decision in Heckler v. Chaney, ___ U.S. ___, 84 L. Ed. 2d 714 (1985).

In Chaney, the Supreme Court decided that agency decisions regarding whether or not to take enforcement action were presumptively unreviewable because statutes authorizing their enforcement actions ordinarily provide no "law to apply" to such decisions. Hence, under §701(a)(2) of the Administrative Procedure Act, they are "committed to agency discretion by law." The agency enforcement authority at issue in that case was similar to NHTSA's defect enforcement authority. The statute involved in that case conferred on the agency (the Food and Drug Administration) broad authority to take investigative and enforcement action; and the Court found that because Congress had described the agency's enforcement powers in broad terms, without specific standards or guidelines, it had "commit[ted] complete discretion to the Secretary to decide how and when they should be used." Id. at 726.

The language of the National Traffic and Motor Vehicle Safety Act regarding investigative and enforcement authority is very similar to the provision involved in Chaney. The statute provides that "[t]he Secretary is authorized to to conduct examinations and investigations." Section 112(a)(1)(A) of the Safety Act states: "The Secretary is authorized to conduct any inspection or investigation which may be necessary to enforce this title or any rules, regulations or orders issued thereunder." Section 152, which authorizes the Secretary to make a determination of a safety-related defect, does not set forth any standards or guidelines that circumscribe the Secretary's exercise of discretion to decide whether to make such a determination. Section 152(a), which contains the authority for initial defect determinations, provides that

> If through testing, inspection, investigation, or research ... or examination of communications under section 158(a)(1), or otherwise, the Secretary determines that any motor vehicle...contains a defect which relates to motor

> vehicle safety he shall immediately notify the manufacturer ... of such determination...."

Similarly, with respect to the Secretary's authority to make final defect determinations, §152(b) provides:

> If, after such presentations by the manufacturer and interested persons, the Secretary determines that such vehicle...contains a defect which relates to motor vehicle safety, the Secretary shall order the manufacturer (1) to furnish notification...and (2) to remedy such defect....

The language of the Act itself thus demonstrates that GAO's statement in the second paragraph of its answer, asserting that there is "law to apply" to NHTSA decisions to conduct defect investigations, is based on an erroneous premise. The purported source of the "law" to be applied, according to GAO, is that the Act has "charged" NHTSA with the "responsibility" to determine "through any means available to it" whether a safety defect exists. The GAO Report's suggestion that the agency has a judicially enforceable duty to open a defect investigation in some cases is at best misleading in light of the actual language of the statute. Moreover, the assertion of the second paragraph is a non-sequitur: it does not necessarily follow that because NHTSA can use any source of information in conducting an investigation, it is required to conduct such an investigation if it is aware that information about a possible defect exists.

The agency would also call attention to the fact that GAO has failed in response to this question, or anywhere else in its draft report, to mention the fact that NHTSA's decision to deny the CFAS petition is governed by a special provision of the Safety Act which authorizes the agency to, inter alia, consider petitions from interested persons to open defect investigations. That section is §124 of the Safety Act, 15 U.S.C. §1410a, which provides that:

> (a) Any interested person may file with the Secretary a petition requesting him to ... commence a proceeding to determine whether to issue an order pursuant to section 152(b) of this Act.

This section, then, if any is the only appropriate source of "law to apply" to the agency's decision to deny the CFAS petition. The language of §124 makes it apparent that Congress did not impose any limitations on the agency's discretion to decide either the scope of the investigation that is appropriate or to determine whether the petition should be granted. Subsection (c) of §124 states that the agency "may hold a public hearing or may conduct such investigation or proceeding as he deems appropriate in order to determine

whether or not such petition should be granted." With respect to the decision whether to grant or deny the petition, §124 provides only that the decision must be made within 120 days after filing of the petition. 15 U.S.C. §1410a(d).

CONCLUSIONS

GAO incorrectly concludes that NHTSA has not properly assessed the settlement's effectiveness because the incident data base is not "statistically reliable" and the fatality data show no overall decline. First, NHTSA wishes to emphasize that the purpose of NHTSA's 1985 report was to determine whether the pending petition should be granted or denied and not to determine the effectiveness of the settlement. Second, NHTSA disagrees with GAO's suggestion that the incident data are not valid indicators which NHTSA can use. Finally, GAO is apparently willing to base its findings on the same fatality data which it suggests NHTSA cannot use. It is difficult to reconcile these contradictions in the GAO approach.

See comment 16.
Now on pp. 42 to 43.

GAO states several options for further NHTSA action. NHTSA does not disagree with GAO (page 50) that some further public awareness efforts to address the problem of inadvertent vehicle movement could be taken. As pointed out in the GAO report, NHTSA has already conducted and influenced several public awareness programs. NHTSA notes, however, that the models given by GAO, i.e., NHTSA's safety belt and drunk driving campaign, are not necessarily comparable examples. The estimated number of people injured or killed annually due to lack of safety belt use or due to drunk driving (literally thousands each year) is far in excess of the total number of persons alleged to have been killed in inadvertent movement accidents. There is an appreciable difference in problem magnitude between these examples. NHTSA plans to conduct further public awareness programs, including efforts to call public attention to the problem of inadvertent vehicle movement;[11/] however, the agency must focus most of its

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11/ However, GAO's suggestion that any such program be preceded by a survey to determine a baseline for comparison and followed by another survey to assess its effectiveness would be difficult to implement, and may not be practicable at all. Such surveys would delay the implementation of any such program by as much as a year, thus unnecessarily delaying the safety benefits of any such program. If the program is then found not be effective by the follow-up survey, which could take another year, then NHTSA might have to go through the whole process again. It is likely that the agency could

efforts and resources on areas of greatest priority, where the greatest number of safety improvements can be expected.

Although GAO identifies opening a new investigation as another option, GAO also notes several "significant limitations" to this option - limitations which are the same as those which NHTSA considered and recognized in its 1985 decision to deny the petition.

See comment 17.

In sum, NHTSA is pleased to note GAO's implicit approval of its recent decision to deny the petition to reopen and its acknowledgment that NHTSA carried out its commitments under the settlement. NHTSA recommends that GAO consider the potential harmful effect on the NHTSA defects program if its recommendations regarding statistical assessments of incident data in settlements were to be adopted.

11/ [Footnote continued from previous page]

achieve greater safety benefits by channelling its resources into the awareness programs themselves rather than expending them on the surveys GAO recommends.

Attachment A

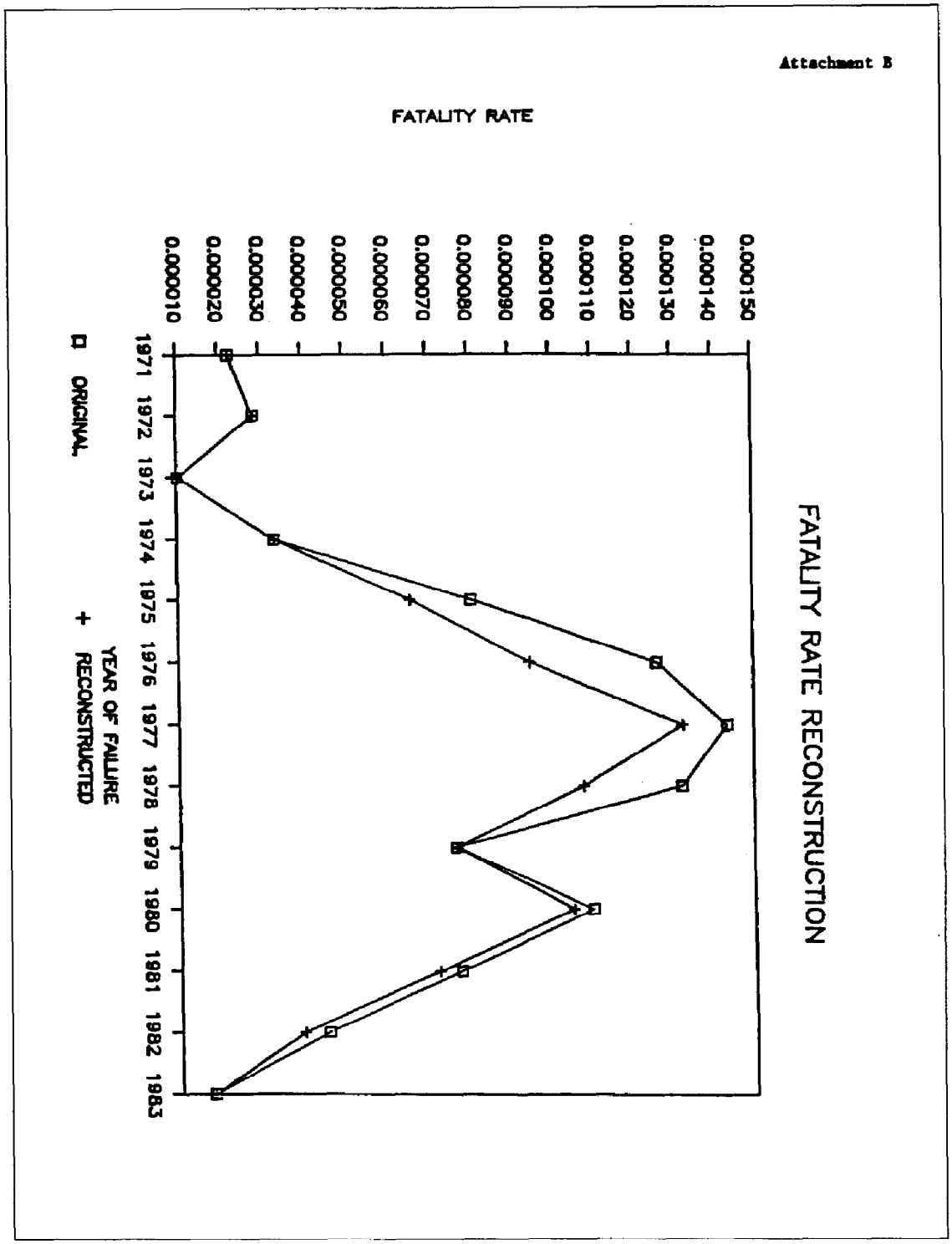
FORD PARK TO REVERSE FATALS REPORT LAG TIMES (WHERE KNOWN)

VEHICLES		LAG IN YEARS	
ALL (1961-1983)		2.65	
PRE 1970 MODELS		5.64	
POST 1970 MODELS			
RECEIVED DURING	PHASE I	2.02	
	PHASE I-SETTLEMENT	.83	
	POST SETTLEMENT	2.06	
ALL		1.92	

SINCE SETTLEMENT (DEC 31,1980) BY DATE OF FAILURE

			NO.
FATALS (ALL MODEL YEARS) OCCURRING IN	1981	1.30	28
	1982	1.33	29
	1983	1.10	25
	1984	.50	27
	1985	.10	7
	1981-1985	1.00	
FATALS (1970-1979 M/YR) OCCURRING IN	1981	1.20	21
	1982	1.05	22
	1983	.93	20
	1984	.44	24
	1985	.08	6
	1981-1985	.84	

Attachment B



The following are GAO's comments on the Department of Transportation's letter dated March 13, 1986.

GAO Comments

1. In our opinion, the December 30, 1980, letter signed by the Acting Secretary of Transportation to Ford Motor Company was quite explicit with regard to the Department's expectations in settling the Ford transmission case—that is, that the action taken by Ford Motor Company "would be likely to reduce significantly the incidence of accidents, death, and injury resulting from unexpected rearward vehicle movement . . . ." Therefore, it follows, in our opinion, that a means of measuring the effectiveness of the letter/label program should have been employed. To measure the effectiveness of the program, NHTSA relied on incident and fatality reports. GAO found, however, that NHTSA has not performed the statistical analysis necessary to measure the settlement's effectiveness. Also, we found that the data that were available were conflicting in that while the incident data showed a decline in the rate of incidents since the settlement, the fatality data showed no overall decline in the fatality rate for the same period. We further believe that the way to judge the settlement's effectiveness is through a statistically valid comparison of incident and fatality rates before and after the settlement. This was not done. Therefore, GAO has concluded that the issue of the effectiveness of the settlement agreement, including the Department's expectation of significantly reducing the incidence of accidents, deaths, and injuries resulting from unexpected vehicle movement, is unknown.

2. In using the word "however," GAO was merely making a statement of fact—incidents and fatalities relating to inadvertent vehicle movement are still being reported. As to seriously overstating DOT's "expectations," the idea of eliminating "all" such incidents was never raised. It is GAO's view, however, that the question still remains as to whether the letter/label program was effective in significantly reducing the incidence of accidents, deaths, and injuries.

3. The Department's comment provides rationale for its decision denying the 1985 CFAS petition. GAO was not asked, nor did we attempt, to make any judgment on NHTSA's July 1985 response to the CFAS petition. In addition, GAO offered neither an opinion nor a conclusion regarding the alleged defect in the subject transmissions.

4. The Department's comment provides rationale for its decision denying the 1985 CFAS petition. GAO was not asked, nor did we attempt, to make any judgment on NHTSA's July 1985 response to the CFAS petition.

5. We recognize that incident data are a basic tool for NHTSA's assessments of alleged safety-related defects and that the use of those data is consistent with the Safety Act. However, the Ford case was unique in that there was no final defect determination made and no vehicle recall was ordered. Instead, a settlement was negotiated with, in our opinion, a clear expectation of what the Department hoped to achieve—a significant reduction in the incidence of accidents, death, and injury resulting from inadvertent vehicle movement. As previously stated, we believe that the way to judge the settlement's effectiveness is through a statistically valid comparison of incident and fatality rates before and after the settlement. Since this type of analysis was not done, the effectiveness of the settlement, in our opinion, is unknown.

6. The Department states that even results which fail a "statistical significance" test may give indications of trends in vehicle performance. We agree and have used the available data in that manner. As stated, our analyses of these data indicate no overall decline in the fatality rate. Since the Department's expectation for the settlement was to reduce significantly the incidence of accident, death, and injury, the analysis of fatality data focuses on whether there has been a significant decline in the fatality rate. Notwithstanding the indications of the raw fatality data, we believe that their use to statistically judge the settlement's effectiveness is limited.

7. The statistical comparison that the Department makes in its comments is valid. However, we believe that in reviewing the available data, the entire time series, not just segments of it, should be examined. As figure 3.1 of our report indicates, the fatality rate has risen and fallen through the time series. If one compared the fatality rate for 1981-82 with the rate for 1983-84, one could conclude that fatalities increased. Notwithstanding any of these comparisons, however, as stated in our report, we believe that the fatality data's sensitivity to small changes in the number of fatalities in any one year limits their usefulness in any statistically valid analysis of the settlement's effectiveness.

8. We state in the report that the lag time since the investigation began is 1.7 years, as compared to the 2.6-year lag for all fatalities. We believe that it is appropriate to recognize the lag time since the investigation began because it does not include the built-in lag due to NHTSA's not

actively collecting these data until 1977. For the period after 1977, however, we would expect the lag time to decrease as the year in which the fatality occurred comes closer to the present. For example, the lag time for fatalities occurring in 1985, as shown in appendix A to the Department's comments, would be expected to be short because it is now only March 1986 and what further fatalities might come to light are unknown.

9. As stated in the report, GAO analyzed the data in this manner for purposes of consistency. NHTSA advised GAO that it had evaluated only non-Ford fatalities that had been reported after the settlement. Also, GAO's review of the non-Ford fatality data showed that, in general, the date of occurrence of the fatality was missing. Therefore, in order to make a comparison between Ford and non-Ford fatalities, GAO used all fatality data that had been received and evaluated by NHTSA's three-member panel after the settlement, since these were the only data available.

10. We recognize that the decline in inadvertent vehicle movement fatalities from 1980 to 1981 was much greater than the decline in all automobile fatalities. While we note in the report that the letter/label program may have had no effect on the fatality rate because all automobile fatalities declined, the report further states—given that no study was done of the effect of the letters and labels—that it is not possible to determine a direct relationship between the letter/label program and the 1981 decline in fatalities.

11. Appendix I traces the changes in NHTSA's methodology. We believe that, looking retrospectively at the data in 1985, the decline in fatalities is not as steep as it appeared to be in 1983. We further believe that the chart contained in appendix B to the Department's comments has the same limitations as the chart presented in July 1983. We believe that both charts do not recognize the lag in reporting fatalities and present fatalities reported through July 1983 as though they represented all fatalities that would have been reported throughout 1983.

12. In this section of the report (app. I), GAO was merely describing NHTSA's criteria and methodology for evaluating inadvertent vehicle movement fatalities and incidents over the years. No inferences were intended or should be drawn from this descriptive material.

13. GAO is not recommending that this procedure be used routinely, rather that it be used only in cases for which there is a negotiated settlement that does not involve a recall and for which an objective to be

achieved is either clearly stated or implied. To date, the Ford transmission case is unique in this respect. Although this procedure could be expensive and time-consuming, GAO believes that when NHTSA resolves its safety concerns by negotiating a settlement that does not involve a recall, it needs a statistically valid means of assessing whether the negotiated settlement in fact resolves the agency's safety concerns. While NHTSA believes a survey of the type discussed in GAO's report would take 9 to 17 months, GAO believes that the actual data collection period for establishing a presettlement baseline would take only 1 to 3 months and that the data analysis need not be completed before the settlement. In the Ford case, almost 3 months elapsed between the NHTSA Administrator's October 3, 1980, recommendation to the Secretary that a final determination of defect be made and the December 30, 1980, settlement between DOT and Ford. In addition, over 4 months elapsed between the settlement agreement date and the initial March 1981 mailing of letters and labels and the second mailing in May 1981.

14. In this section of the report, GAO intended to describe a sampling procedure used by NHTSA to follow up on defect recalls either ordered by the agency or voluntarily undertaken by the manufacturer. GAO believes the basic procedures employed by the agency under this program could have been modified and used to sample the Ford vehicles covered under the settlement. The data from the sample could have provided the agency with one source of information to be used in evaluating the effectiveness of the Ford settlement agreement.

15. We have deleted the paragraph concerning law to apply. The conclusion in that paragraph to which NHTSA objects was not necessary in order to respond to the question. In addition, NHTSA raised several significant legal arguments. The District Court in the Ford transmission case has now ruled in favor of NHTSA on this point. (CFAS vs Dole CA 85-2866, April 11, 1986.)

16. As noted by the agency, there are options for the Secretary to consider. GAO went on further to state that the Secretary may wish to choose some other option with regard to this case. While the reference to the seat belt and drunk driving campaigns were for example purposes, GAO also noted that the number of reported incidents and fatalities due to inadvertent vehicle movement is far greater than was any other safety investigation conducted by NHTSA, and that incidents and fatalities continue to be reported. As such, we believe this matter deserves further action appropriate to its magnitude.

17. We were not asked, nor did we attempt, to make any judgments on NHTSA's July 1985 petition response. We believe that the negotiated-settlement-without-a-recall resolution of the Ford case is unique and requires a different method of evaluation.

Advance Comments From the Ford Motor Company

Note: GAO comments supplementing those in the report text appear at the end of this appendix

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March 7, 1986

J. Dexter Peach, Director
Resources, Community and
Economic Development Division
U. S. General Accounting Office
441 G Street, N. W.
Room 4915
Washington, D. C. 20548

Dear Mr. Peach:

As requested in your February 21, 1986 letter to Mr. Harold A. Poling, President of Ford Motor Company ("Ford"), I am enclosing Ford's comments on the draft General Accounting Office report entitled "Auto Safety: Effectiveness of Ford Transmission Settlement Still at Issue."

I want to thank you for giving Ford the opportunity to submit its remarks in this fashion. As the enclosed comments indicate, we disagree with some of the GAO's observations, but we also believe that the report makes significant strides in putting in proper perspective many aspects of an unduly prolonged controversy. This achievement is due largely to the considerable efforts of your staff to grasp the lengthy history of a complex NHTSA investigation and its aftermath. From the outset of GAO's inquiry, it has been our intent to cooperate as fully as possible, and I hope that we have met this objective.

Ford has never hesitated to examine carefully any safety concerns expressed about its vehicles and to make corrections to vehicles in use when we have discovered a safety-related defect. The present matter is no exception. As we have stated to members of your staff, evaluating the allegations concerning Ford automatic

transmissions has been one of our most important safety priorities in recent times. Since 1977, Ford personnel have engaged in the most intensive investigation of an alleged safety defect in the Company's history. I can confidently state that ours has been a comprehensive, open-minded effort to determine whether in fact a defect exists. On the basis of these efforts, we are completely satisfied that the vehicles in question do not contain any safety-related defect that would account for the reports of unexpected movement of driverless vehicles that your staff has examined.

We believe the evidence is conclusive that incidents of unexpected vehicle movement can and do occur on all manufacturers' automatic transmission-equipped vehicles and that the phenomenon relates entirely to occasional failures to park the vehicles properly, not to the vehicles' designs. The fact is that despite years of defect allegations, no one has brought forward a single Ford-built car or light truck, other than one in which the park control system was worn-out, broken or grossly maladjusted, that could not be engaged in Park or that would fail to stay in Park once engaged.

In closing, it should be emphasized that we know of no design approach in any manufacturer's vehicle that can prevent driver error or offset its potential consequences. We believe that the only practical means of diminishing the danger of unexpected vehicle movement is to help keep drivers aware of the need to follow the safe parking procedures specified in all manufacturers' owner-operator manuals. We therefore endorse GAO's opinion that NHTSA's public education efforts aimed at drivers of all automatic transmission vehicles should be continued and expanded. Doing so should help promote the observance of safe parking procedures among all drivers. Ford is willing, of course, to support this effort.

As always, if you or your staff are in need of any further information, please do not hesitate to contact me.

Sincerely,

Helen O. Petrauskas

Helen O. Petrauskas

Enclosure

COMMENTS OF FORD MOTOR COMPANY ON
U.S. GENERAL ACCOUNTING OFFICE
DRAFT REPORT: "AUTO SAFETY: EFFECTIVENESS
OF FORD TRANSMISSION SETTLEMENT STILL AT ISSUE"

As requested in a February 21, 1986 letter to Mr. Harold A. Poling, President of Ford Motor Company ("Ford"), from Mr. J. Dexter Peach, Director, Resources, Community and Economic Development Division, U.S. General Accounting Office ("GAO"), Ford offers the following comments on the GAO's draft report entitled "Auto Safety: Effectiveness of Ford Transmission Settlement Still at Issue" ("Draft Report").

See comment 1.

I. THE FUNDAMENTAL QUESTION IS MISLEADING AND FALSELY PREMISED.

The Draft Report characterizes the pending issue as the "effectiveness" of the 1980 settlement of the National Highway Traffic Safety Administration's ("NHTSA") investigation of Ford automatic transmissions. Ford understands that framing the issue in this fashion was dictated by the Subcommittee on Telecommunications, Consumer Protection, and Finance of the House Committee on Energy and Commerce. However, this formulation is highly misleading. The Center for Auto Safety ("CFAS") and other critics assert that in 1980, NHTSA had developed a persuasive case that Ford transmissions were defective, that NHTSA had concluded there was such a defect, and that the Ford Owner Reminder Program was intended to be a "remedy." Based on these premises, the Ford critics assert that the pending issue is whether the so-called "remedy" has been "effective" and, if not, whether there is a need for further agency action. But this description is fallacious because the aforementioned underlying premises are false:

(1) The entire 1977-1980 investigation conducted by NHTSA's Office of Defects Investigation ("ODI") evolved from a hypothesis that the vehicles in question were uniquely capable of "jumping out of park." (See, e.g., the NHTSA consumer advisories issued during the investigation.) A consensus has since developed, however, that this theory is groundless. For example:

-- The Canadian Ministry of Transport conducted an investigation of Ford automatic transmissions parallel to NHTSA's. Its principal investigating contractor concluded: "It is not believed that a vehicle in proper mechanical condition would jump from Park to Reverse after being properly placed in Park. It appears that in almost all reported inci-

dences, the transmission was not fully shifted into Park. . . ." ODI Document No. C8-02-406.1, p. 10.

-- A report prepared by NHTSA's test facility concluded that "[w]hen the shift selector was in the park position, no amount of door slamming, vehicle bouncing, or steering wheel shock, caused the gear selector to jump into reverse." ODI Document No. C8-02-A26, p. 21.

-- NHTSA's Parts Return Program News (April 1979 edition) reported, on the basis of field inspections of Ford vehicles allegedly involved in unexpected vehicle movement incidents, that "when placed securely in Park, the vehicles would not accidentally shift into Reverse."

-- Even those engineering "experts" who testify against Ford in suits alleging transmission design defects repudiate the "jump out of park" theory. For example, Simon Tamny, perhaps the most active of these witnesses, has testified that if a Ford transmission is placed in park, nothing short of "getting hit by a Mack truck" will cause it to jump out of park. See ODI Document No. P85-15-E1.1, Tab 12. See also ODI Document No. P85-15-E1, pp. 4-10.

As in all automatic transmission-equipped vehicles, if a Ford shift lever is placed in the Park position, it cannot come out unless moved by the driver. In short, it is now widely accepted that unexpected vehicle movement may occur only when a driver fails to place a vehicle in the Park position in the first place and then compounds this error by failing to turn off the engine and apply the parking brake.

(2) As the Draft Report notes (pp. 13-14), in 1980, Ford responded point-by-point to the technical defect theories set forth in the June 1980 ODI Investigative Report. That rebuttal was based largely on ODI's own research and that of its outside contractors, some of whom flatly told the agency that the ODI defect theories did not distinguish Ford from non-Ford vehicles. See ODI Document No. P85-15-E1, pp. 49-58. The official who oversaw development of these defect theories, Associate Administrator for Enforcement Lynn Bradford, has stated under oath that in late 1980, after Ford's refutation of the ODI Report, the agency's technical theories would not

have supported a final defect determination. See ODI Document No. P85-15-E1.4, Tab 17, ¶¶ 8, 15, 16, 17.

(3) At the time of the 1980 initial determination, NHTSA's Office of Defects Investigation expressed a preliminary view that unexpected vehicle movement incidents were more or less peculiar to Ford vehicles, and it issued its initial determination largely because of the disproportionate number of unexpected vehicle movement reports that the agency had received concerning Ford vehicles. Since that time, however, it has become apparent that unexpected vehicle movement is an all-vehicle phenomenon. (See, e.g., Draft Report, pp. 3, 28, 42-43, 48.) The Ford reports predominate because of the intensive publicity spawned by the agency and others. See ODI Document No. P85-15-E1, pp. 14-21. As is discussed further below (see pp. 8-12 infra), accident report data are worthless for comparing Ford and non-Ford vehicles in this situation because Ford drivers (and many other persons, including public authorities) have been conditioned by publicity to assume that such incidents are the fault of the vehicle, while drivers of non-Ford vehicles continue to believe that such occurrences result from driver failure to park correctly.

Now on pp. 4, 26, 36-37, 41.

(4) In June 1980, the agency claimed it was aware of 97 reports of fatal unexpected vehicle movement accidents involving the Ford vehicles in question, compared to only ten involving non-Ford vehicles. See ODI Document No. C8-02-413.1, p. 30. The current campaign by Ford's critics is based primarily on reports of additional alleged fatalities involving Ford vehicles received since 1980. But these critics refuse to acknowledge the most significant development in the controversy: NHTSA's receipt of at least 338 reports of fatal driverless vehicle accidents involving non-Ford products. It is impossible to compare fully the Ford and non-Ford fatality reports received by NHTSA because Ford and the agency have devoted considerable energy to investigating the Ford cases, while information about many of the non-Ford cases is substantially less complete. Further, publicity and the reporting network established by CFAS have caused far more complete reporting of Ford incidents. Nevertheless, the discovery of the non-Ford cases puts to rest the idea that unexpected vehicle movement is peculiar to Ford vehicles and certainly negates ODI's assumption in 1980 that such incidents occur significantly more frequently with Ford products.

(5) NHTSA's initial determination and the 1980 ODI Investigative Report that accompanied it did not constitute agency "findings" or "conclusions" that the vehicles in question were defective or that the rate of unexpected

vehicle movement incidents in Ford vehicles "exceed[ed] that of competitors' vehicles." See Affidavit of NHTSA Associate Administrator for Enforcement Lynn L. Bradford, ODI Document No. P85-15-E1.4, Tab 17, ¶ 16c. To the contrary, the initial determination was merely the "commencement of a public proceeding during which the manufacturer and other interested parties [could] present data, views and arguments." Affidavit of NHTSA Chief Counsel Frank Berndt, id., Tab 17, ¶ 3. A substantial amount of additional data were received by the agency during this "public proceeding" process. And as the U.S. Court of Appeals for the District of Columbia Circuit has observed, at the time of the settlement, the agency was a long way from reaching any final conclusions:

> [T]he existence of a defect was not conclusively established. Even after "the largest and most difficult and complex investigation ever conducted by NHTSA," the Associate Administrator for Enforcement of NHTSA, who had been responsible for the Ford transmission investigation, stated "major new investigative efforts" would probably have been necessary to establish that a defect existed. . . . He concluded, "I am unable to state whether such additional investigation would have resulted in a final determination that a defect was present."

Center for Auto Safety, Inc. v. Lewis, 685 F.2d 656, 663 (D.C. Cir. 1982). See also ODI Document No. P85-15-E1.4, Tab 25 (letter of NHTSA Chief Counsel Frank Berndt).

In sum, NHTSA has never concluded that there is a defect in the vehicles at issue, and the NHTSA record provides absolutely no basis for any such conclusion. The additional information that has emerged since 1980 makes clear that unexpected vehicle movement is a phenomenon experienced in all automatic transmission-equipped vehicles. Thus, there is something entirely incongruous about the idea that there should be an evaluation of the "effectiveness" of the Ford Owner Reminder Program in "remedying" a condition that indisputably is not peculiar to Ford vehicles. The congressional request that GAO pursue the "effectiveness" issue has served only to camouflage the real issue: What, if anything, should NHTSA be doing to address the safety risk posed by unexpected vehicle movement accidents which can and do occur, albeit rarely, on automatic transmission vehicles of all manufacture?

See comment 2.

II. THE DRAFT REPORT CORRECTLY URGES THAT PUBLIC EDUCATION IS THE MOST APPROPRIATE RESPONSE TO UNEXPECTED VEHICLE MOVEMENT, BUT THERE ARE ADDITIONAL IMPORTANT REASONS SUPPORTING THIS CONCLUSION.

Even though the Draft Report misstates the central issue, it does directly address the question of what action NHTSA should take to lessen the risk of unexpected vehicle movement. The draft correctly identifies public education about the existence of these dangers as the preferable agency response.

Unexpected vehicle movement plainly is a matter of human interaction with the vehicle, see, e.g., CFAS v. Lewis, 685 F.2d at 663, and common sense dictates that if properly conducted, public education efforts can have the beneficial effect of reminding drivers how unexpected vehicle movement can be prevented. In short, such programs would reinforce the message that unexpected vehicle movement can be avoided in automatic transmission-equipped vehicles if before leaving vehicles unattended, drivers always (1) make sure the shift selector lever is engaged in Park, (2) set the parking brake, and (3) turn off the engine. These steps are not special precautions addressed to Ford vehicles. As noted in the Draft Report (pp. 90-91), they have been long reflected in the laws of at least 45 states, they are emphasized in driver education courses, and they are part of all manufacturers' instructions to vehicle operators. Ford stands ready to assist in such public education efforts as it has with programs to encourage seat belt usage and discourage drunk driving.

Now on p. 79.

Although it generally agrees with the public education response to this issue, Ford strongly disagrees with the Draft Report's suggestion that consideration might be given to special reminder efforts with respect only to owners of 1970-1979 Ford vehicles. (See Draft Report, pp. 5, 51.) As discussed above (pp. 3-4), it is beyond dispute that hundreds of individuals have died in unexpected vehicle movement accidents involving non-Ford vehicles, and as is discussed further below (pp. 8-12), there is no statistically valid evidence that such accidents occur significantly more frequently among Ford vehicles. The deaths resulting from the accidents involving non-Ford vehicles certainly are no less tragic than any others, and there is thus no logical basis for a Ford-only educational program. Moreover, a Ford-only program would be contrary to the public interest because it would suggest to drivers of non-Ford vehicles that the safe-parking precautions discussed above are unnecessary or less critical in operating non-Ford vehicles.

Now on pp. 4, 43.

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See comment 3.
Now on pp. 4, 42.

The Draft Report (pp. 4, 50) correctly recognizes that there are "significant limitations" on NHTSA's opening a new investigation of the vehicles at issue in 1980. But the Draft Report errs by even suggesting that "a new investigation" is an available "option." (Id.) In the 1980 settlement, the Department of Transportation reserved the right to take further action in this matter only as "warranted by the development of its knowledge in this matter based upon additional facts." See ODI Document No. C8-02-1.513. In denying a CFAS petition for a new investigation only last July, NHTSA Administrator Diane Steed found after thorough additional inquiry that there was no "new information suggesting the presence of a safety-related defect," see ODI Document No. P85-15-32, p. 3, and the Draft Report contains nothing to contradict that conclusion. Indeed, as discussed above (see pp. 1-5 supra), the only "new information" in this matter which has been developed since 1980 is that the prior investigation was entirely unfounded in the first place. Moreover, as the Draft Report recognizes (p. 47), both Ford and NHTSA have "met their responsibilities under the settlement agreement." Thus, in Ford's opinion, the initiation of a new NHTSA investigation despite the absence of additional facts strongly suggesting the presence of a safety-related defect on these vehicles would constitute a repudiation of the 1980 settlement agreement.

Now on p. 40.

Even if another investigation were an available "option," there would be a number of reasons for rejecting the idea beyond the "several significant limitations" specifically mentioned in the Draft Report (pp. 4, 50). First and foremost, further investigative efforts would be futile and wasteful. Under the National Traffic and Motor Vehicle Safety Act, NHTSA recall orders are not self-enforcing. The agency must seek enforcement by bringing a civil action against the manufacturer in which, at a trial de novo, the government bears the burden of proving that the subject vehicles contain a safety-related defect. See, e.g., United States v. General Motors Corp., 518 F.2d 420, 426 (D.C. Cir. 1975). The same federal district court from which NHTSA would have to obtain an enforcement order has already provided a clear preview of what would result from a trial de novo in this case.

Now on pp. 4, 42.

In challenging the 1980 settlement, CFAS questioned not only the administrative procedures involved in the settlement; it also put squarely in issue the validity of its defect allegations. In its lawsuit complaint in CFAS v. Lewis, Civ. A. No. 81-0550 (D.D.C.), CFAS argued that "NHTSA's administrative record plainly show[ed] . . . a sufficient basis for a recall" (¶ 36), asserted that the supposed defects were sufficiently obvious that Ford had

violated the Safety Act by not initiating a recall itself (p. 10), and requested the court to direct NHTSA to order the recall of the Ford vehicles in question. (Id.) And in other pleadings filed with the district court, CFAS contended that the investigative record showed "a defect in these transmissions both in performance based on the significant number of reported failures, and in design." CFAS Mem. in Support of Motion for Summary Judgment, p. 28.

In mounting its challenge, CFAS was able to rely on the entire agency record, and it submitted for the court's review considerable material therefrom. CFAS advanced the very same defect theories offered by ODI, and it presented to the court principal investigative documents written by NHTSA staff personnel -- the June 1980 ODI Investigative Report, the August 1980 NHTSA staff analysis of Ford's preliminary arguments, Administrator Claybrook's October 3, 1980 memorandum to Secretary Goldschmidt, Ms. Claybrook's January 19, 1981 "Final Report," and lists of and reports on alleged unexpected movement incidents involving Ford vehicles. Nevertheless, when faced with what CFAS apparently thought to be the best evidence that a defect existed, the courts were not impressed. Both the district court and the court of appeals declined to accept the CFAS arguments and determined that there was no basis for concluding that NHTSA might later prove that a defect existed even if it were to launch an additional investigative effort. See CFAS v. Lewis, 3 Consumer Product Safety Guide (CCH) ¶ 75,280, at 60,783 (D.D.C. 1981), aff'd, 685 F.2d 656, 663 (D.C. Cir. 1982). Indeed, the district court flatly concluded that the agency would face "a prolonged inquiry and difficult, if not insurmountable, problems of proving that a defect actually existed."

If after three and one-half years of investigation, NHTSA's staff had not assembled a more persuasive record, there must be grave doubt whether there would be any point to further investigation. That doubt is increased by the aforementioned post-settlement developments that have negated basic assumptions entertained by ODI during its investigation, particularly the mistaken belief that unexpected vehicle movement accidents were essentially peculiar to Ford vehicles.

The futility of further investigation also is manifested in recent statements by the agency itself based on its years of experience with this matter and the information amassed during that period. As noted above, only last July, NHTSA Administrator Diane Steed, based in part on guidance from ODI, denied a petition to initiate a new investigation on the grounds that "there are not sufficient reasons to expect further investigation of this matter to

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result in a determination that the vehicles in question contain the alleged defect." ODI Document No. P85-15-32, p. 1.

Former NHTSA Associate Administrator Lynn L. Bradford has testified that at the time of the 1980 settlement, NHTSA was far from concluding that a defect existed in the vehicles in question and that "major new investigative efforts" would probably have been necessary "in order to attempt to reach a conclusion as to whether [there was] a defect." See ODI Document No. P85-15.E1.4, Tab 17. This observation has even greater merit today, given the collapse since 1980 of ODI's tentative case against the Ford transmission systems. And as Mr. Bradford also observed, pursuing these major investigative efforts would "overtax . . . " NHTSA's resources, possibly "impair[ing]" other important agency activities. Id. Thus, besides repudiating the 1980 settlement agreement and being futile and wasteful, opening a new investigation would divert scarce agency resources from critical safety programs. Further, like a Ford-only public education program, a Ford-only investigation and the publicity attendant thereto would irresponsibly delude operators of non-Ford vehicles into believing that they do not face the risks of unexpected vehicle movement and need not be careful to follow proper parking procedures.

See comment 4.

III. THE DRAFT REPORT CORRECTLY CONCLUDES THAT AVAILABLE ACCIDENT DATA ARE NOT ADEQUATE.

The Draft Report repeatedly rejects the use of unexpected vehicle movement fatality data for statistically analyzing trends in the frequency of such occurrences since the 1980 settlement. Ford agrees that these data are inadequate for such analysis because of the effects of publicity and the uneven efforts to gather reports of Ford and non-Ford incidents as well as because of the relative rarity of such fatality events.* For example, the report states:

> [T]he manner in which the fatality data were collected and their sensitivity to small changes in the number of fatalities in any one year limit their usefulness in any statistically valid analysis of the settlement's effectiveness.

Now on p. 76.

Id. at 87. Similarly, the draft elsewhere states:

Now on pp. 3, 26, 27, 30.

* The Draft Report expresses similar criticisms about incident data. (See, e.g., pp. 3, 28, 32, 33.)

> [W]e have concluded that neither the incident data used by NHTSA to assess the settlement's effectiveness nor the available fatality data are adequate for statistically assessing the settlement.

Now on pp. 33, 79.

Id. at 90. See also id. at 38.

Now on p. 4.

At some junctures in the Draft Report, however, these same data are discussed without making clear their serious shortcomings. For example, on page 3 in the Executive Summary, the Draft Report states that "NHTSA data show that the number of fatalities documented for 1970-1979 Fords exceeded those reported by other domestic manufacturers by factors ranging from 2.5 to 4.5." Ford does not dispute that more alleged fatal unexpected vehicle movement accidents have been reported to NHTSA regarding Ford vehicles than concerning General Motors, Chrysler, or American Motors vehicles. But Ford is concerned that critics may contort statements like the one quoted above to be more than a conclusion about reported cases; i.e., a conclusion that Ford vehicles in fact are significantly more frequently involved in unexpected vehicle movement accidents. This is an interpretation that Ford understands GAO does not intend, and for good reason.

Comparison of the reported fatality data on record at NHTSA is meaningless in ascertaining the relative frequency of Ford and non-Ford unexpected vehicle movement accidents. As discussed above, NHTSA's files now contain at least 338 reports of fatalities resulting from the unexpected movement of non-Ford vehicles. But these reports have accumulated in the agency's files even though NHTSA has done nothing to encourage the reporting of incidents involving non-Fords, and the reporting of these non-Ford incidents is therefore undoubtedly far less complete.

The great differential in the reporting of fatalities to NHTSA is dramatically demonstrated by comparing the sources of those reports. Substantially all of the non-Ford fatality accidents known to the agency have been collected through Ford's examination of only two types of public records -- certain public health records and NHTSA's Fatal Accident Reporting System ("FARS"). But these examinations have produced only fragmentary results because (1) the records involved are incomplete and (2) Ford's access thereto has been limited.

Searches of public health records have permitted identification of only a very limited percentage of unexpected vehicle movement cases for several reasons. First, Ford's study has included the public health records of only about half the states. Further, these efforts produce far

less than complete results because the examination of these records provides nothing more than the identification of candidate cases. Some cases are missed because the public health records lack a clear suggestion on their face that unexpected vehicle movement may have been involved. But many more are not located because it is usually impossible to clarify whether unexpected vehicle movement may have been a factor in a particular case unless a police report (or comparable document) can be obtained. Unfortunately, such police reports frequently have been unavailable. In some states, local laws limit or preclude Ford's access to the reports. And in some cases, traffic accident reports are not prepared because the accidents occurred on private property and are therefore not deemed to be traffic mishaps. See ODI Document No. P85-15-18, p. 22. Thus, many additional non-Ford fatality reports remain unreported.

FARS also falls short of being a comprehensive source of unexpected vehicle movement reports. The FARS codes do not permit entirely reliable retrieval of such cases from the data base. In some instances, supplemental information is needed from police reports, and such reports are sometimes not available to Ford. Further, as the Draft Report notes (p. 44), Ford believes that FARS is also subject to the biasing effect of publicity. For example, Ford has observed that police reports from which the FARS data are extracted often reflect publicity influences. In Ford cases, investigating officers tend to assume the vehicle is to blame because of the well-publicized Ford-only allegations. Other potential causes therefore are not pursued. In contrast, reports on non-Ford unexpected movement accidents tend to include considerable speculation about causes unrelated to the design of the vehicle and investigation of those possible causes. Finally, by definition, FARS includes only those fatality accidents which occurred on public roads and highways. Since many unexpected vehicle movement accidents occur in off-road circumstances (e.g., driveways, parking lots, private property), FARS does not contain a complete reporting of such occurrences.

Now on p. 38.

Incomplete as they may be, Ford's public health record reviews and FARS studies have been the sources of fatality reports about both Ford and non-Ford vehicles. When in the course of these efforts, Ford has discovered comparable cases involving Ford vehicles which were not already known to the agency, they have been submitted right along with the non-Ford accidents. But the basic point is that Ford cases involving fatalities are consistently reported to the agency from numerous additional sources that do not report non-Ford cases.

Now on p. 29.

For example, one of the largest sources of reports about alleged fatality accidents involving Ford vehicles has been the direct reporting to NHTSA or Ford by the general public. This relatively complete and speedy reporting of alleged Ford accidents is prompted by the long-standing, intense anti-Ford publicity. See ODI Document No. P85-15-E1, pp. 14-21. Further, that publicity also has caused the reporting of alleged accidents occurring long before the NHTSA investigation was opened and settled. Indeed, the agency has received reports on these older cases years after their alleged occurrence, and in those and many other instances, the reports have noted on their face that they were prompted by publicity about Ford -- and only Ford -- vehicles.* As the draft report notes (see, e.g., p. 32) and as NHTSA Administrator Diane Steed has observed, see ODI Document P85-15-32, publicity radically increases the flow of public complaints. This fact is conceded even by Ford's critics. See ODI Document No. P81-15-1, p. 16 (CFAS petition noting that the Claybrook Administration's consumer advisories "served . . . to encourage consumers to submit failure reports to NHTSA" and that the agency's "failure to similarly communicate with the public after 1980 has no doubt led to fewer [Ford] accident reports being submitted"). While publicity has caused the reporting of many Ford cases, the absence of comparable publicity about other makes has made the public's reporting of non-Ford accidents far less complete.

Another major source of Ford reports is the network established by CFAS. Because of its visibility around the country and because of its nationwide efforts in organizing "Campaign Ford Recall," CFAS has become a receptacle for reports of alleged unexpected vehicle movement accidents

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* Ford's May 6, 1985 submission to NHTSA contains dramatic examples of the impact of publicity in uniquely causing the public to report alleged Ford fatality cases. (See ODI Document No. P85-15-12.) One illustration is an alleged Ford case (Swafford) about which the only known information is a CFAS submission stating that a person "[w]as found run over by a car" and conceding that "[n]o details were known." (See ODI Document No. C8-02-E153.) According to the CFAS report, this accident occurred in 1972. The decedent's son-in-law did not bring the accident to CFAS' attention at the time, but "he now believes, based on [a] N.Y. Times article" in 1983 that the occurrence "was a Ford P-R accident." If this accident had involved a non-Ford vehicle, it probably still would be unreported. (For additional examples, see ODI Document No. P85-15-E6, p. 24 n.*.)

involving Ford vehicles. CFAS has fostered this effort by cultivating contacts with media personnel and others around the country such that when an accident occurs that might be labeled a Ford unexpected vehicle movement case, CFAS is often advised immediately. Further, CFAS has established itself as a complaint clearinghouse by offering for sale its "legal advisory services" to attorneys contemplating legal action against Ford concerning such alleged accidents. (See ODI Document No. P85-15-18, Tab 2.) Indeed, almost all of the alleged Ford fatality reports in CFAS' recent submissions to NHTSA have been letters from attorneys offering to buy CFAS's pre-packaged litigation materials on Ford transmissions or seeking other information. (See ODI Document No. P85-15-16, Attachments I and II.)

As noted above, Ford perceives significant limitations on the use of FARS to assess the relative frequency of unexpected vehicle movement accidents in Ford and non-Ford vehicles. But putting these limitations aside, FARS still does not suggest that any defect exists. If anything, the data base points to the opposite conclusion.

In an April 22, 1985 submission to NHTSA (ODI Document Nos. P85-15-11, -E2), Ford presented an analysis of FARS data concerning this issue. (See the attached charts.) That analysis (Charts 1, 3, and 5) suggests that unexpected vehicle movement accidents happen with extreme rarity in all manufacturers' automatic transmission vehicles. These data also support the conclusion that such accidents are attributable to the failure of drivers to observe safe parking procedures (as opposed to vehicle malfunction) in that the number of such accidents involving a particular manufacturer's vehicles varies widely from year-to-year, with General Motors vehicles predominating some years, Chrysler being the most heavily involved vehicles at other times, and Ford vehicles leading at several other points. In short, these data do not show the pattern of substantial and consistent overinvolvement of Ford or any other manufacturer's vehicles that would be evident if any line of vehicles contained a defect in design that caused them to move unexpectedly when unattended.

Other parts of the analysis reflect the rates of accidents which involve certain other operator-related causal factors shown in the FARS codings. For example, Chart 7 reflects the rates of involvement (according to the FARS data base) of General Motors, Ford and Chrysler vehicles in accidents where a vehicle was driven the "wrong way on a one-way roadway." Chart 8 shows the rates for cases in which a driver was "following improperly," Chart 9 reflects the rates of cases involving "passing -- insufficient distance," and Chart 10 reflects the rates of cases in which one

driver was "passing where prohibited." Significantly, the rate patterns for each of these operator-related factor accidents are similar to the patterns for unexpected vehicle movement accidents identified in the FARS data base. In each case, the rates for a particular manufacturer's vehicles vary widely from year-to-year with no particular manufacturer appearing to predominate. These charts evidence the irrationality of the argument that unexpected vehicle movement accidents are the result of a vehicle design defect when the alleged problem actually arises out of the occasional failure of drivers of all makes of vehicles to observe proper parking procedures.

IV. A FEW POINTS OF CLARIFICATION SHOULD BE NOTED.

A. Source of Documents.

At several junctures, the Draft Report refers to views expressed in 1980 by NHTSA staff members as though those views were official agency positions. (See, e.g., Draft Report, p. 14 ("NHTSA rejected Ford's criticisms").) In most cases where these references are made, however, the persons involved (usually ODI personnel) had no authority to speak definitively on NHTSA's behalf.

See comment 5.

Similarly, NHTSA Administrator Claybrook's statements during 1980 cannot be viewed as articulating official policy under the Safety Act. Ms. Claybrook has testified that her delegated Safety Act authority to act on ODI Case C8-02 was withdrawn by Secretary of Transportation Neil Goldschmidt in early 1980. See Hearing Before the Subcomm. on Telecommunications, Consumer Protection, and Finance of the House Comm. on Energy and Commerce, 98th Cong., 1st Sess. 44 (1983). The Secretary settled the case in an exercise of his Safety Act authority that was subsequently found proper by the courts. But while still in office, Administrator Claybrook wrote various memoranda to the files in late 1980 and early 1981 recommending a different course. Since the Secretary, not Ms. Claybrook, held the Safety Act authority over ODI Case C8-02, however, these statements are nothing more than an expression of her own personal disagreement with the official position of her Department. The official position of the agency in this matter is set forth in the testimony of responsible NHTSA personnel given in the agency's successful defense of the 1980 settlement in CFAS v. Lewis. See, e.g., ODI Document No. P85-15-E1.4, Tab 17.

See comment 6.

B. Wheels Analysis.

Now on pp. 27 to 28.

The introduction to the "incident data" section of the Draft Report (pp. 30-31) contains a brief analysis

Now on p. 27.

Now on p. 27.

of the "validity of NHTSA's reliance on incident data" which is attributed to United States v. General Motors Corp. ("Wheels"), 518 F.2d 420 (D.C. Cir. 1975). This discussion is superfluous since the introduction goes on to state that the ensuing section of the report "does not relate to NHTSA's use of incident data in reaching determinations as to the existence of safety-related defects." (Draft Report, p. 31.) Nevertheless, Ford wishes to note that contrary to the suggestion of the Draft Report, the "validity of NHTSA's reliance on incident data" in reaching safety defect determinations was not an issue in Wheels and therefore could not have been "upheld" by the courts therein. (Id.)

In Wheels, General Motors had conceded that there had been a "significant number of failures" in the components at issue. Thus, the only issue in dispute was the cause of the failures, not whether they had occurred in significant numbers. See 377 F. Supp. 242, 251; 518 F.2d at 426, 442 n.114. Far from having "held that the agency could presume the existence of a defect in performance by demonstrating [it] through analysis of incident reports" (Draft Report, p. 31), the court in Wheels expressly stated that before a presumption will arise to support a prima facie showing of defect, the Government must offer "competent evidence" showing not only a significant number of failures, id. at 442, but also negating causes for the failures other than inherent deficiencies in the product. Id. at 438.

In any event, the Wheels precedent is wholly inapplicable here. Wheels and the Safety Act cases applying that decision to date have all concerned broken components that rendered motor vehicles incapable of subsequent safe operation. The allegations concerning Ford's automatic transmissions are quite different. As the U.S. Court of Appeals for the District of Columbia Circuit has observed regarding this matter:

> Examination of Ford vehicles reported to have been involved in an [unexpected vehicle movement] incident reveal that following the reported incident, the park system appeared to function normally in most instances.

CFAS v. Lewis, 685 F.2d at 660. The difference is, of course, critical. The very heart of the dispute in this case has been whether the unexpected movement of a driverless vehicle is attributable to some "failure" in the transmission or its control system or to "failure" of the driver to immobilize the vehicle by putting the shift selector lever in Park before leaving the vehicle unattended.

Now on pp. 30 to 32.

See comment 7.

C. Settlement Assessment Procedure.

The Draft Report (pp. 34-37) outlines a proposal for monitoring defect investigation settlements through mail surveys. Ford has serious doubts about the practicability and efficacy of such a procedure, but the suggestion of a mail survey makes an important point about this entire controversy.

In 1980, Ford reminded NHTSA that at early stages in a significant number of its investigations, particularly those conducted under Administrator Claybrook, mail surveys were sent both to owners of vehicles under investigation and to owners of other vehicles in order to determine if the allegedly defective vehicles experienced the alleged problem more frequently than other vehicles. (See ODI Document No. C8-02-E129.8 (citing ODI Case C8-03, ODI Case C8-19, ODI Case C4-20, ODI Case C5-26, ODI Case C4-28, and ODI Case C4-34).) But in the Ford transmission case, NHTSA abandoned these procedures. Instead, before any significant statistical or engineering investigative efforts, the agency issued sensationalistic, highly-publicized consumer advisories seeking complaints about Ford vehicles only. (See ODI Document No. P85-15-E1, pp. 14-21.) The resulting Ford-only publicity and the continuing reinforcement of that publicity over the intervening years has created a bias against Ford vehicles that renders accident and fatality data useless as tools for evaluating disputed issues in this controversy. Thus, ironically, it was the Claybrook Administration's choice to "investigate" by publicity (as opposed to more objective methods) that underlies the GAO's conclusion that available statistical data are inadequate. (See pp. 8-9 supra.) Had NHTSA chosen to use an impartial mail survey at the outset of its investigation in 1977, this matter should have been brought to a speedy conclusion because that survey would have revealed what is now known: Unexpected vehicle movement incidents can and do occur on all automatic transmission vehicles, and these occurrences are related not to vehicle design or performance characteristics, but rather to occasional driver failure to operate the vehicle control system correctly.

Attachments

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CHART 1

DRIVERLESS VEHICLE ACCIDENTS
NUMBER OF REPORTS ON CARS AND LIGHT TRUCKS
(NHTSA FARS DATA)

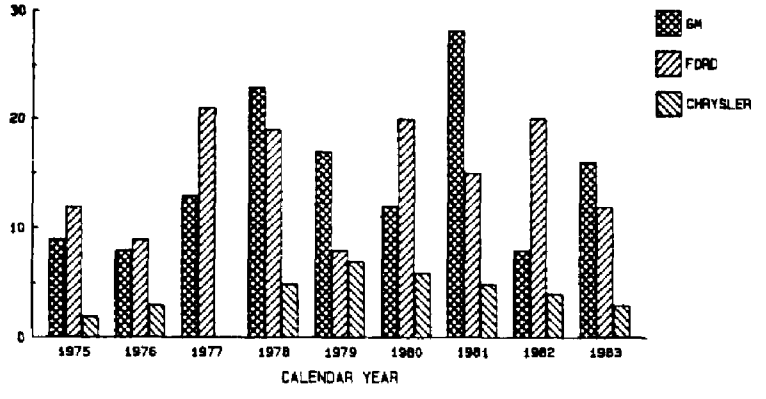
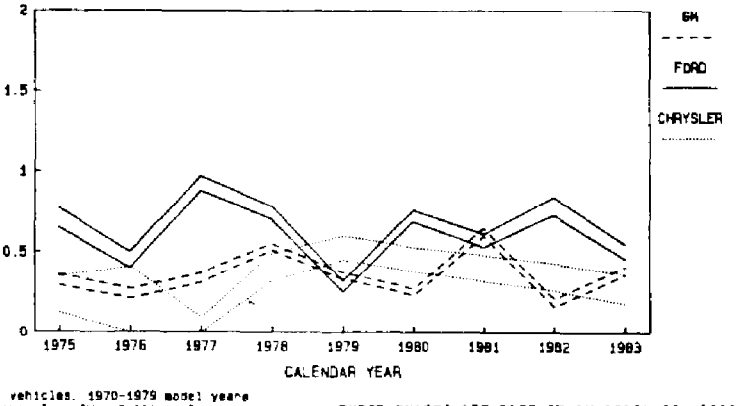


CHART 2

NUMBER OF REPORTS
PER MILLION VEHICLES



Driverless vehicles. 1970-1979 model years coded "Striking" or "Non-Collision", excludes "Struck" vehicles.

THESE CHARTS ARE PART OF AN APRIL 22, 1985 LETTER BY R. E. MAUGH OF FORD MOTOR COMPANY RESPONDING TO A NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION REQUEST FOR INFORMATION. THE CHARTS SHOULD NOT BE USED WITHOUT BENEFIT OF THE EXPLANATIONS PROVIDED IN THE TEXT OF THAT LETTER.

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CHART 3

DRIVERLESS VEHICLE ACCIDENTS
NUMBER OF REPORTS ON CARS
(NHTSA FARS DATA)

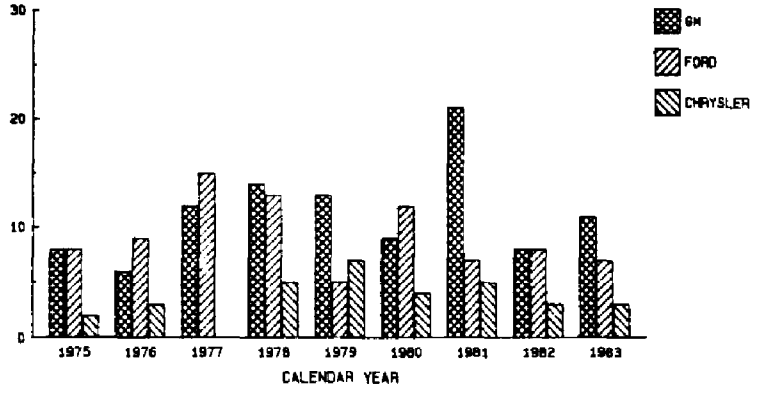
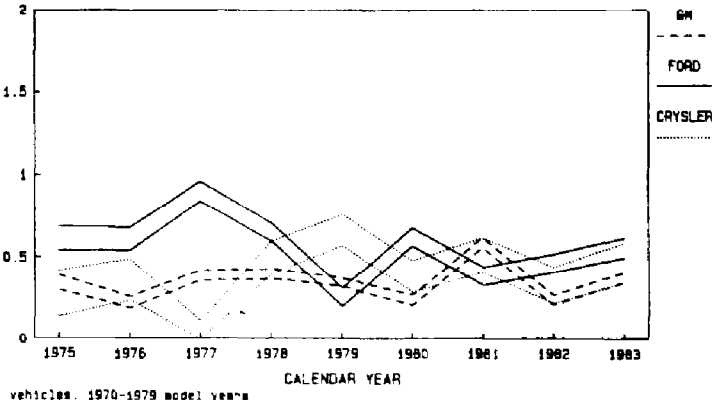


CHART 4

NUMBER OF REPORTS
PER MILLION CARS



Driverless vehicles, 1970-1979 model years coded "Striking" or "Non-Collision", excludes "Struck" vehicles.

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CHART 5

DRIVERLESS VEHICLE ACCIDENTS
NUMBER OF REPORTS ON LIGHT TRUCKS
(NHTSA FARS DATA)

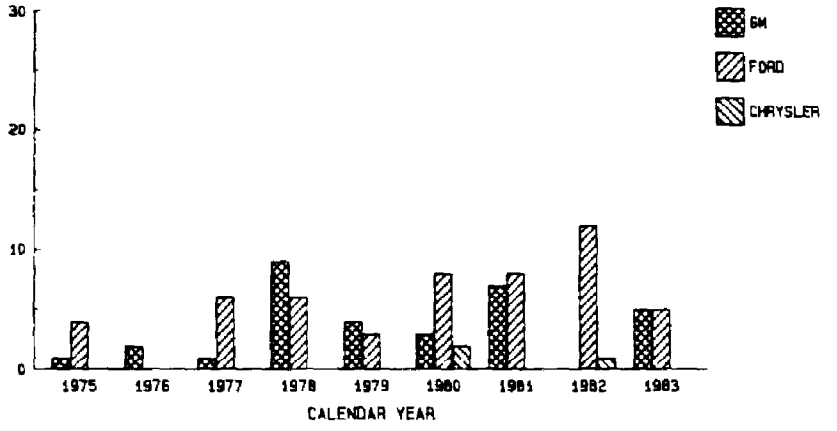
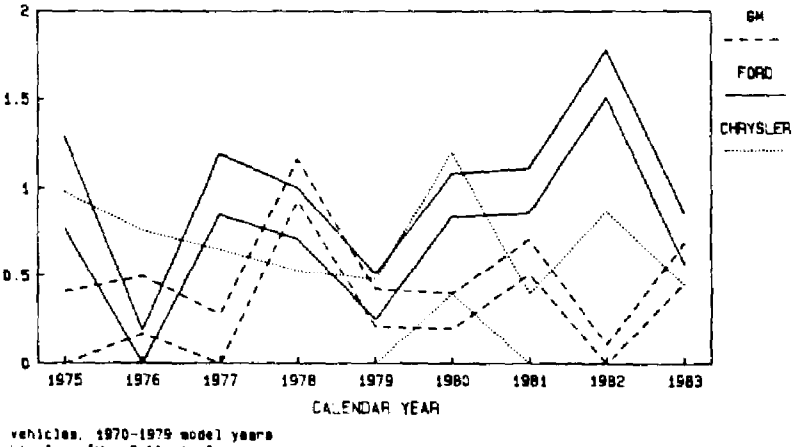


CHART 6

NUMBER OF REPORTS
PER MILLION LIGHT TRUCKS



Driverless vehicles, 1970-1979 model years coded "Striking" or "Non-Collision"; excludes "Struck" vehicles.

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CHART 7

COMPARISON OF DRIVERLESS VEHICLE CASES
TO "WRONG WAY ON ONE-WAY ROADWAY" CASES
(1970-79 MY CARS, 1975-83 CY FARS DATA)

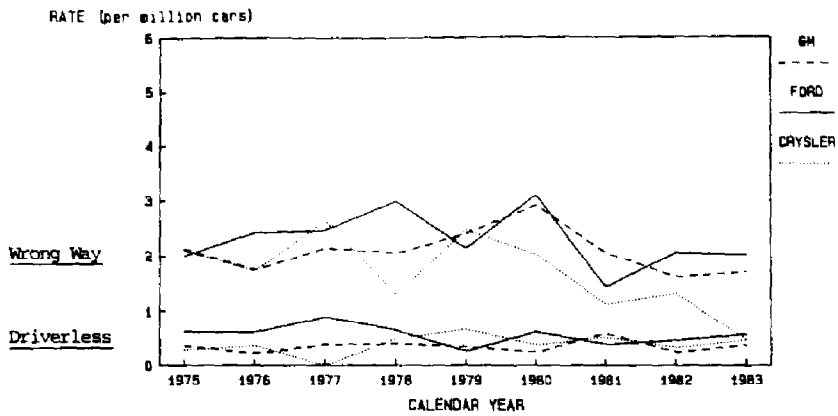

CHART 8

COMPARISON OF DRIVERLESS VEHICLE CASES
TO "FOLLOWING IMPROPERLY" CASES
(1970-79 MY CARS; 1975-83 CY FARS DATA)

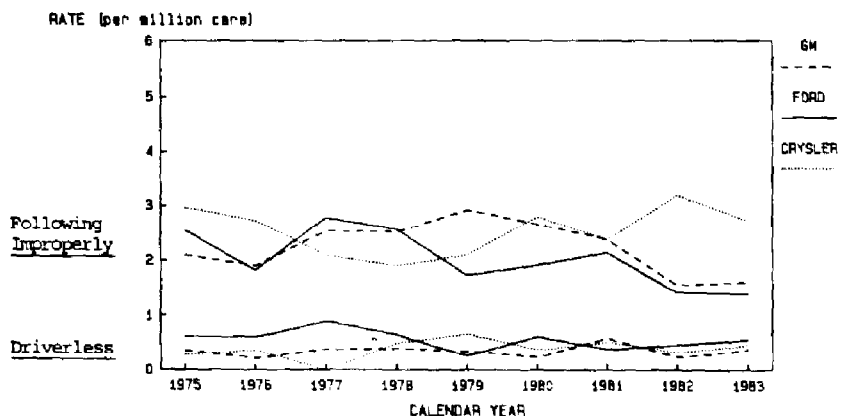

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CHART 9

COMPARISON OF DRIVERLESS VEHICLE CASES
TO "PASSING - INSUFFICIENT DISTANCE" CASES
(1970-79 MY CARS, 1975-83 CY FARS DATA)

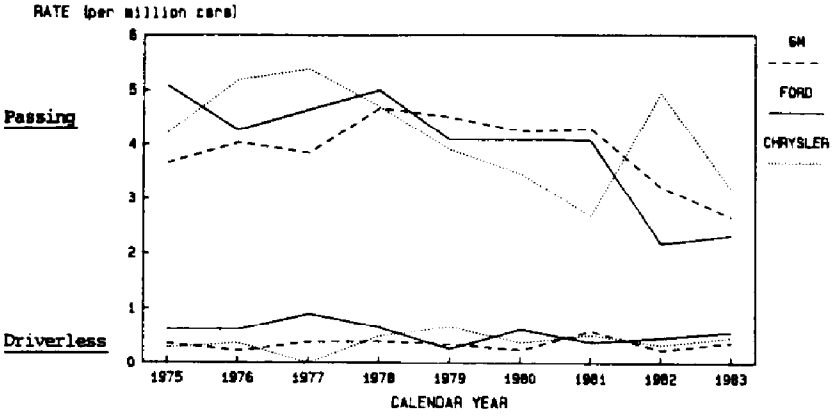
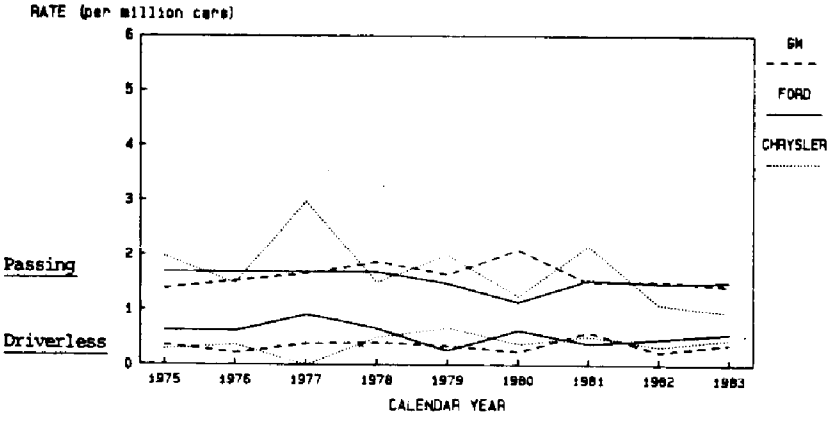


CHART 10

COMPARISON OF DRIVERLESS VEHICLE CASES
TO "PASSING WHERE PROHIBITED" CASES
(1970-79 MY CARS, 1975-83 CY FARS DATA)



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The following are GAO's comments on Ford Motor Company's letter dated March 7, 1986.

GAO Comments

1. The points raised by Ford generally are beyond the scope of our review. We were neither asked, nor did we attempt, to determine the existence of a defect or the appropriateness of NHTSA's investigation of Ford transmissions. Our discussion of events preceding the settlement have, for the most part, been limited to a historical chronology. However, as Ford pointed out, GAO was directed to pursue the "effectiveness" issue. In this regard, GAO did find that NHTSA attempted to use its data to show that there was a significant decline in the occurrence of incidents and fatalities associated with unexpected vehicle movement since the settlement. These data were not, however, analyzed in a statistically valid manner. Furthermore, available data is conflicting—while the incident data showed a decline in the rate of accidents since the settlement, the fatality data showed no overall decline in the rate of fatalities for the same period. GAO believes that the way to judge the effectiveness issue is through statistically valid comparisons of incident and fatality ratios before and after the settlement. Since this type of analysis was not done, the effectiveness of the settlement's action to significantly reduce the incidence of accidents, death, and injury is, in our opinion, unknown.

2. Ford generally agrees with our options regarding public awareness at a generic level. However, Ford strongly disagrees with the suggestion that special attention be given to owners of 1970-79 Ford vehicles. GAO has identified several options for the Secretary of Transportation to consider, including the two identified above. GAO is not, however, endorsing any one option over the other and has, in fact, recognized that the Secretary may wish to choose some other option not identified by GAO.

3. Ford also argues that a new investigation is not an available option in "the absence of additional facts strongly suggesting the presence of a safety-related defect." We agree that NHTSA could not reopen the proceeding closed in 1981 at the stage at which it was discontinued. However, notwithstanding Ford's arguments, NHTSA's reservation of a right to take action warranted by the development of its knowledge, coupled with its statutory authority to determine, through any means available to it, whether a safety-related defect exists (15 U.S.C. §1412), does permit it, based on additional facts, to open a new investigation to make such a determination. See also 15 U.S.C. §§1401, 1411, 1418.

4. Ford has expressed concern that when accident data are discussed in the report in comparing Ford and non-Ford fatalities, the data's limitations are not made clear. GAO has noted limitations to both incident and fatality data throughout the report, including Ford's reservations about the completeness of Ford and non-Ford fatality reports. GAO's report also makes clear that its discussion and analysis is based on reported fatalities.

5. The draft has been revised to make clear that the Administrator's delegated authority to decide whether a safety-related defect existed was withdrawn by the Secretary.

6. Ford is correct that the facts in the Wheels case are different from the facts presented here; in Wheels, the physical failure of the equipment was admitted and the issue was whether that failure was the result of a defect, while here the transmission control system has not been proven or admitted to have failed or malfunctioned. That distinction is not important for purposes of our report; however, Wheels still supports the general proposition for which we cite it, that NHTSA can use reports of incidents (failures in normal operation) to meet its burden of proving the existence of a defect, without making a showing of the actual cause of the failures.

We mentioned the Wheels case only to make clear that, in pointing out the limitations on conclusions that can be drawn from incident data when used to assess this settlement, we are not taking issue with the validity of NHTSA's use of incident data in carrying out its responsibilities. We have changed the wording of the report describing Wheels to conform more closely to the language of that decision.

7. See GAO's response to the Department of Transportation, appendix V, p. 113, comment 13.

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