



UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

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COMMUNITY AND ECONOMIC
DEVELOPMENT DIVISION

April 17, 1979

Ms. Joan Claybrook
Administrator, National Highway
Traffic Safety Administration
Department of Transportation

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Dear Ms. Claybrook:

One of the primary missions of the National Highway Traffic Safety Administration is to reduce motor vehicle accidents, deaths, and injuries. Thus, it is essential that detailed and accurate accident information be collected to help the Safety Administration identify national highway safety problem areas; develop, implement, and evaluate highway and motor vehicle safety standards; and design effective countermeasure programs.

Our past audit experience with the Safety Administration has indicated that accident information needed to accomplish these tasks has not always been available. This need led us to initiate a survey to determine what information systems the Safety Administration uses--or plans to use--to support its highway safety decisions.

Two of the Safety Administration's major accident data collection systems are the National Accident Sampling System (NASS), implemented as a pilot program in 1978 with current annual operating costs of \$4.6 million; and the Fatal Accident Reporting System (FARS), implemented in 1975 with current annual operating costs of about \$1.8 million. We focused our survey efforts on these two systems.

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During our survey we identified several concerns with the manner in which NASS and FARS are being operated. We feel these concerns, presented below, should be brought to your attention at this time so that they can be addressed during the Safety Administration's ongoing work in the area.

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NATIONAL ACCIDENT SAMPLING SYSTEM

The NASS objective is to accumulate detailed, nationally valid statistics on motor vehicle accidents so that a base can be created for evaluating safety standards and designing countermeasures. NASS was designed in 1974, published for comment in 1975, and began as a pilot program in April 1978 when 10 teams, under contract with the Safety Administration, commenced collecting detailed information on highway accidents.

The team locations were selected on the basis of population, degree of urbanization, and per capita retail gasoline sales. NASS is scheduled to become fully operational in 1982, at which time it is anticipated to have about 50 teams investigating 20,000 highway accidents annually at a cost of \$17.7 million. NASS should then be capable of providing important national accident statistics which never before have been available.

The accident data collected by the NASS teams on a continuous sampling basis consists of elements describing the accident, collision course, occupant and nonoccupant injuries, driver background, and vehicle classification and damage. Information is obtained from police and medical records, scene investigations, vehicle inspections, and occupant/nonoccupant interviews.

Our survey identified three major concerns with NASS: (1) the need for State and local input, (2) data collection, and (3) timely reporting.

NASS was designed with little State and local input, even though cooperation with and from these officials is of paramount importance. In a March 1978 Safety Effectiveness Evaluation Report--issued almost 4 years after the system was designed--the National Transportation Safety Board pointed out that many State highway safety officials were unfamiliar with the NASS program. Also, in January 1979, a member of the Executive Board of the National Association of Governors' Highway Safety Representatives stated before a National Highway Safety Advisory Committee task force that neither he nor his counterparts in other States were ever questioned on the need for, or the design of, such a system as NASS. Again, in a March 1979 follow-up evaluation of NASS, the National Transportation Safety Board reported that many highway safety professionals were still not

familiar with the program when they attended a NASS public meeting in October 1978.

NASS continuous sampling framework, which is currently limited to police-reported towaway accidents, will not be representative of the highway accident universe. In September 1977, Safety Administration officials stated in a NASS status report:

"In order to produce national statistics on all accidents and in order to properly evaluate certain countermeasures, it will not suffice to sample only towaway accidents."

However, on January 31, 1978, a Safety Administration memorandum was issued to the NASS Users Committee and NASS staff that stated:

"The basic sampling frame of NASS consists of all police-reported traffic accidents in which at least one vehicle was towed from the scene, * * *."

This apparent discrepancy in the continuous sampling framework was discussed at the NASS public meeting in October 1978, wherein a question was asked as to whether NASS data, which is limited to police-reported towaway accidents, would lack credibility in presenting a national picture of all accidents. The consensus at the public meeting indicated that other accident data--such as that compiled from police-reported nontowaway and nonpolice-reported accidents--should also be collected on a continuous basis.

NASS national statistics, if issued on an annual basis as planned, will not be timely. According to individual comments expressed during the October 1978 public meeting, NASS information will need to be disseminated at least quarterly to the general public so that potential highway safety problem areas can be predicted as early as possible and countermeasure efforts can be implemented accordingly.

Conclusions

We realize that NASS is a pilot program and as such is subject to much change before it becomes fully operational. However, the above-mentioned NASS concerns--needed State and local input, additional accident data collected on a

continuous basis, and more timely reporting--are all part of the potential problem areas which the Safety Administration should be addressing during this pilot period.

FATAL ACCIDENT REPORTING SYSTEM

The FARS objective is to assemble detailed information on highway fatalities to guide and direct highway safety decisionmaking. FARS is a census, as opposed to a sample, of all fatal motor vehicle accidents occurring throughout the Nation. System development started in 1972 and it became operational in 1975 when the 50 States, Puerto Rico, and Washington, D. C., under contract with the Safety Administration, began collecting and assimilating fatal highway accident data.

Each fatal accident reported involves filling out a number of standardized FARS forms--one for each accident; one for each driver; and one for each person involved. Police, health, and vital statistics records are among the sources used to obtain FARS data. Unlike the NASS program, no vehicle or accident scene inspections are made.

FARS is intended for use at Federal, State, and local government levels to enhance highway safety operations and identify changing trends in highway fatalities.

Our survey indicated three major concerns with FARS: (1) completeness of data, (2) cost of system access, and (3) timely reporting.

FARS often contains incomplete data, thereby limiting its use. According to a March 1978 FARS printout of 1977's fatal accidents, several data elements had such high rates of "unknown" responses that they would be of little help in evaluating respective highway safety program standards or countermeasures. For example, in over 72 percent of the reported accidents, it was not known if the driver had or had not received driver training; therefore, the effects of such training could not be measured. Other examples include (1) travel speed, where in nearly 60 percent of the accidents it could not be determined how fast a vehicle was going; and (2) emergency medical services notification and arrival times, where in 65 to 70 percent of the accidents it could not be determined when such services were notified or when they had arrived.

FARS data access by States has been cumbersome and expensive, despite reported assurances by the Safety Administration that retrieval would be otherwise. A member of the Executive Board of the National Association of Governors' Highway Safety Representatives was certain that some States became discouraged after initial attempts to retrieve FARS data, and subsequent attempts met with limited success. Furthermore, a member of the Virginia Highway and Transportation Research Council recently indicated that:

- the software package used to retrieve FARS data is expensive for small agency use;
- State computer personnel do not have the expertise needed to access FARS;
- system documentation is needed before some States can contract for FARS use; and
- an educational program is needed for potential FARS users.

FARS information is untimely, as the annual reports covering 1975, 1976, and 1977's highway fatalities were not issued until 10 to 11 months after each reporting year had ended. Such delays have caused members of the National Association of Governors' Highway Safety Representatives to question whether accident data which in part is nearly 2 years old by the time it is published is worth the cost.

Conclusions

Regarding the concern expressed on FARS data access, the Safety Administration, as part of its responsibility to assist others in the highway safety area, should (1) continually encourage States and other interested parties to use FARS, and (2) apprise potential users of FARS benefits as well as its limitations due to incomplete data. The Safety Administration should develop training seminars and information packages (which include needed system documentation and a description of FARS capabilities) to accomplish these tasks.

Regarding the concerns expressed on timeliness and completeness of FARS data, the recent implementation of a computerized on-line data entry system and an ongoing evaluation effort--if carried out as proposed--could

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alleviate much of these problems. On September 14, 1978, the Safety Administration awarded a \$99,855 contract to Kinetic Research, Inc., to conduct a 15-month FARS data enhancement review. The contractor's technical proposal for this review includes a task to observe the computerized data entry system and subsequently identify any problems. Successful completion of this task should further improve the timeliness of future FARS data collection and dissemination efforts.

The technical proposal also indicates that the FARS data elements will be assessed against similar systems like NASS to identify situations where State FARS analysts are not using coding definitions properly; where data sources used are inappropriate; and where data responses are coded "unknown." These tasks, when completed, should improve the reliability and completeness of future FARS data collection efforts.

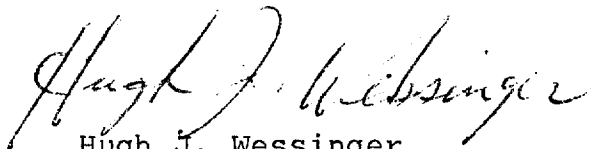
Through discussions with Safety Administration officials, we learned that Kinetic Research, Inc., does not plan to determine if the FARS source documents themselves are accurate or if the FARS data overlaps or duplicates that collected in other information systems. It would seem that such tasks could be made a part of this FARS data enhancement review.

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Due to the Safety Administration's ongoing evaluations, we are not planning any additional audit work in NASS and FARS at this time. Because of our continuing interest in the Safety Administration's data collection systems, however, we would appreciate being advised within 30 days of the date of this letter of any additional actions being taken or planned which specifically address these concerns.

We appreciate the courtesies extended to us by your staff.

Sincerely yours,



Hugh J. Wessinger
Associate Director

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