

PROGRESS ON THE DEVELOPMENT OF A MASTER FILE
OF HIGHWAY SAFETY PLANNING AND EVALUATION DATA

by

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(The opinions, findings, and conclusions expressed in this
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ABSTRACT

The National Highway Traffic Safety Administration requires each state to submit an annual Highway Safety Plan as a prerequisite for obtaining federal \$402 safety monies. The Highway Safety Plan serves as more than a mechanism for obtaining funds; it induces planning, programming, and budgeting of highway safety projects at both the state and local levels.

Virginia's highway safety planning process has evolved over the past 10 years to become an organized, efficient system which applies the "Problem Identification/Management by Objectives" concept to the requirements of the Highway Safety Plan. Towards strengthening this process, the master file project was initiated in 1976 to supply timely data to the state agencies and local transportation safety commissions for use in their problem identification, countermeasure development, and program evaluation activities.

Since that time, the activities involved in preparing the Highway Safety Plan have been refined and streamlined to effect a more efficient system of retrieving, assimilating, and disseminating the highway safety program data. This report outlines the recent progress of the master file project, and describes advancements towards automating the information that have been achieved in the state agencies in conjunction with the Highway Safety Plan.

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INTRODUCTION

The master file project was initiated in 1976 as a result of a perceived need at the state and local level to develop a comprehensive, automated data base of highway safety planning and evaluation information. This information is necessary to support the state's efforts in responding to the requirements of the federal annual Highway Safety Plan (HSP). The HSP is a multi-year planning document that establishes safety program goals and objectives and estimates the resources required to achieve the goals. The ability to identify problem areas is central to the concept of the HSP. Once problem areas are identified, the state agency or local safety commissions can begin to prioritize and create countermeasure programs to mitigate the problems. Reliable and timely data are essential for effective problem identification and program management. The data contained in the master file facilitate these processes in both state and local traffic safety agencies.

Since the inception of the master file program, much progress has been made towards streamlining the problem identification process and the subsequent production of the HSP. The development of a series of computer programs which eliminate manual processing of information has led to improved efficiency in the compilation and dissemination stages of preparing the annual HSP. Data originating from the Division of Motor Vehicles and the Department of State Police are now received in computer tape form and interfaced directly with the master file computer program. In addition, the driver education program information, which was formerly manually collected from the Department of Education files, is now automated. Thus, eight of the total 15 sections of the HSP data packet are fully automated.

Although total automation of the HSP information has not been achieved to date, planning and evaluation efforts of state and local agencies have been greatly enhanced by the progress on the master file project. This report highlights the accomplishments of the master file project and evaluates the project's effectiveness in fulfilling the state's changing highway safety planning and programming needs.

PURPOSE AND SCOPE

The purpose of this report is to examine the status of the development of the master file and to describe the numerous activities carried on since the initiation of the project in 1976. Specifically, the report focuses on changes which have been implemented in response to recommended improvements in the data compilation and dissemination stages of the problem identification process. Efforts to achieve complete automation of the data in all participating state agencies are also discussed.

In addition, this report addresses the future of the master file project with respect to its current value to state highway safety planning and recent developments in federal programming and funding priorities.

BACKGROUND

In August 1969, the National Highway Safety Bureau, (now the National Highway Traffic and Safety Administration, NHTSA), developed the Annual Highway Safety Plan Work Program (AHSWP), which represented a new direction in the administration of the states' highway safety programs. Under the AHSWP, each state was required to develop a comprehensive, multi-year plan for highway safety program management and to document its goals, planned activities, and funding needs in a report to be submitted annually to the Bureau. Federal funds would then be distributed statewide on a bloc-grant basis. Prior to that time, states were required to submit little information to the Bureau, and each highway safety project was reviewed for funding on a project-by-project basis. The adoption of the AHSWP placed a new emphasis on comprehensive planning at the state level, and federal funding was integrated with statewide planning in a coordinated manner. This new system was beneficial to the states in that it prompted a more systematic planning and evaluation process, as well as a continuous review of current and future funding needs to ensure efficient use of federal funds.

The AHSWP was initiated in FY 1971. Since that time, the program has undergone several changes and is now known as the Highway Safety Plan (HSP). In 1976, Ferguson and Simpson proposed revisions in the format of and procedures for compiling the HSP.*

*"Suggested Revisions to the Annual Highway Safety Work Program in Virginia," January 1976.

Central to their proposal was the concept of management by objectives and the parallel need for establishing an effective methodology for problem identification. Under Virginia's HSP program, each state traffic safety agency and local transportation safety commission (TSC) is requested to submit to the Virginia Department of Transportation Safety (VDTS) an annual summary of its activities and estimates of the resources needed to support its programs. Staff members of the Virginia Highway and Transportation Research Council, in conjunction with the VDTS, then compile these summaries to develop an overall state safety plan for review by the NHTSA and the Federal Highway Administration (FHWA).

It was realized that some of the state agencies and TSC's did not have the capability to maintain the data used in the problem identification, countermeasure development, and evaluation tasks involved in the HSP. Furthermore, if these data were captured by the agency, they were often not easily accessible nor in a format compatible with the HSP. Noting this deficiency as one of the greatest impediments to a successful program in Virginia, Ferguson and Simpson proposed the development of a system to retrieve, store, and manipulate the information at the state level and make it available to the agencies and TSC's for their problem identification and program development. This effort marked the first phase of the creation of a data base of highway safety planning information that is known as the "master file."

The revised program was first put into effect for Virginia's FY 1977 HSP. The Research Council staff gathered planning and programming data and then generated a "problem identification statement" (PID) for each local commission and state agency. The PID packets contain three-year summaries of locality-specific crash data and program information of approximately 20 pages in length. The PID's contain both general and specific crash data in four HSP program areas: motorcycle safety, pedestrian safety, pupil transportation services, and alcohol-related accidents. Planning and training data are also provided for these areas as well as for the other 10 program areas: traffic courts, identification and surveillance of accident locations; driver education; highway design, construction, and maintenance; traffic engineering services; local traffic records systems; debris, hazard control, and cleanup; police traffic services; and accident investigation and reporting.

The FY 1977 PID's sent to the state agencies contained all blank data entries; the agencies had to complete the information using whatever sources were available. The PID's received by the TSC's were partially completed; community and crash data were provided as well as some data for the motorcycle and pedestrian safety

areas. The remaining data had to be furnished by the TSC's. Unfortunately, many of the TSC's still did not have the data or resources to complete this task in a timely and accurate manner.

It was evident from this initial effort that there were other problems and inefficiencies in all three phases of preparing the PID's: retrieval, assimilation, and dissemination of data. Retrieval of data involved three general methods. One method was to gather the information automatically processed from computer printouts or source tapes. At that time, computerized information was available only from the Division of Motor Vehicles and the Department of State Police. A second method of retrieval involved travelling to state agencies to manually extract information from the agencies' files and record it on prepared forms. Filed information was available from the Driver Education Services and the Bureau of Emergency Medical Services. Some information, such as that for pupil transportation services, was available upon request from the responsible agency. Information on other program areas (i.e., Debris, Hazard Control, and Cleanup), however, was more difficult to obtain since it was not under the auspices of any single agency.

The assimilation phase of the HSP was the most time-consuming activity in the system. Once the information was retrieved via the various methods described above, it was compiled, processed, and recorded in the desired format. Crash data from the Department of State Police computer tapes were automatically processed; however, the information received in computer printout form or collected from agency files had to be manually processed and transcribed in the desired format.

The final stage of the process was the dissemination of information to the state agencies and TSC's. This involved manually typing the information in final form for reproduction on a copying machine.

It became apparent that there were many steps in the three phases of preparing the HSP which lent themselves to automation. Realizing this potential, a review of the system was conducted in 1978 to determine which components of the process could be most easily adapted to automation.* It was recognized that complete automation of the system would not be possible at that time, since computerized information was not available for all standard program areas.

*"Development of a Master File of Essential Highway Safety Planning and Evaluation Data," July 1978.

Nonetheless, several recommendations for changes in the compilation and dissemination phases of the HSP were advanced in the report as follows:

1. Pursuit of an ongoing program for complete automation of production of the PID's should continue.
2. Implementation of a computer program which automatically prints the data in the master file in the correct report format should be achieved as soon as possible in order to facilitate the dissemination function of the current production process.
3. The crash data computer program currently used in producing the PID packets should be interfaced with the proposed report program described above.
4. Action should be taken to procure computerized driver licensing and conviction data. When such data are available, a computer program should be developed by the Research Council to retrieve the information needed for the HSP and then the data should be interfaced with the report program.
5. Efforts should be initiated by the VDTs to encourage those traffic safety agencies, both state and local, which presently maintain a manual records system to give strong consideration to automating their information files to increase the efficiency and effectiveness of their operations.

The report also contained a breakdown of the standard program areas by the current level of automation in each area and assessed the likelihood that automation might be attained in the near future.

The following section describes the progress achieved to date in implementing the recommendations for developing the master file. An update on the level of automation of each of the safety standard program areas is also provided.

STATUS OF THE MASTER FILE

Since the inception of the master file project, many improvements have been made that contribute to the efficiency of the state's

problem identification process and the preparation of the annual HSP. A discussion of these improvements is provided in the following section of this report.

Automation of the Dissemination Phase of the HSP

Perhaps the most important development, in terms of improving the efficiency of preparing the PID packets, was the automation of the dissemination phase through the use of the report program. Prior to the development of the report program, the information, once collected, was manually typed onto the pages of the PID's. This was a labor-intensive and time-consuming task, since there are 142 PID packets of 18 pages each. Then, once the information was typed onto the sheets in final form, the PID packets were reproduced for distribution to the state agencies, local commissions, and the VDTS.

With the advent of the report program, the dissemination phase of preparing the PID's was completely automated. The data now are retrieved as usual, but are keypunched into the report program as they are received. At the time of producing the PID packets, the computer automatically prints the information in the desired format, and copies are run directly from the program. The accuracy of the system is enhanced, since the use of the report program eliminates errors inherent in manual typing. The efficiency of the system is improved as well, since both the typing and reproduction phases are completely bypassed.

The report program allows data to be keypunched and stored in the system in the correct format at they are received throughout the year; thus, the bottleneck that develops during the final stages of producing the PID's is avoided. This process also creates a useful data base which enables a comparison of safety activities for successive years and augments the problem identification and evaluation process.

The format program was completely interfaced with the crash data computer program in October 1979 for use in preparing the FY 1981 HSP. With this accomplishment, five components of the HSP information packets were completely automated.

Automation of the Retrieval and Assimilation Phases of the HSP

Attempts have been made to fully automate the compilation of the HSP planning data. The sources of the data and the form in which the data are received is depicted in Figure 1. Progress has been made in the retrieval and assimilation of computerized and filed information from the state agencies, as described below.

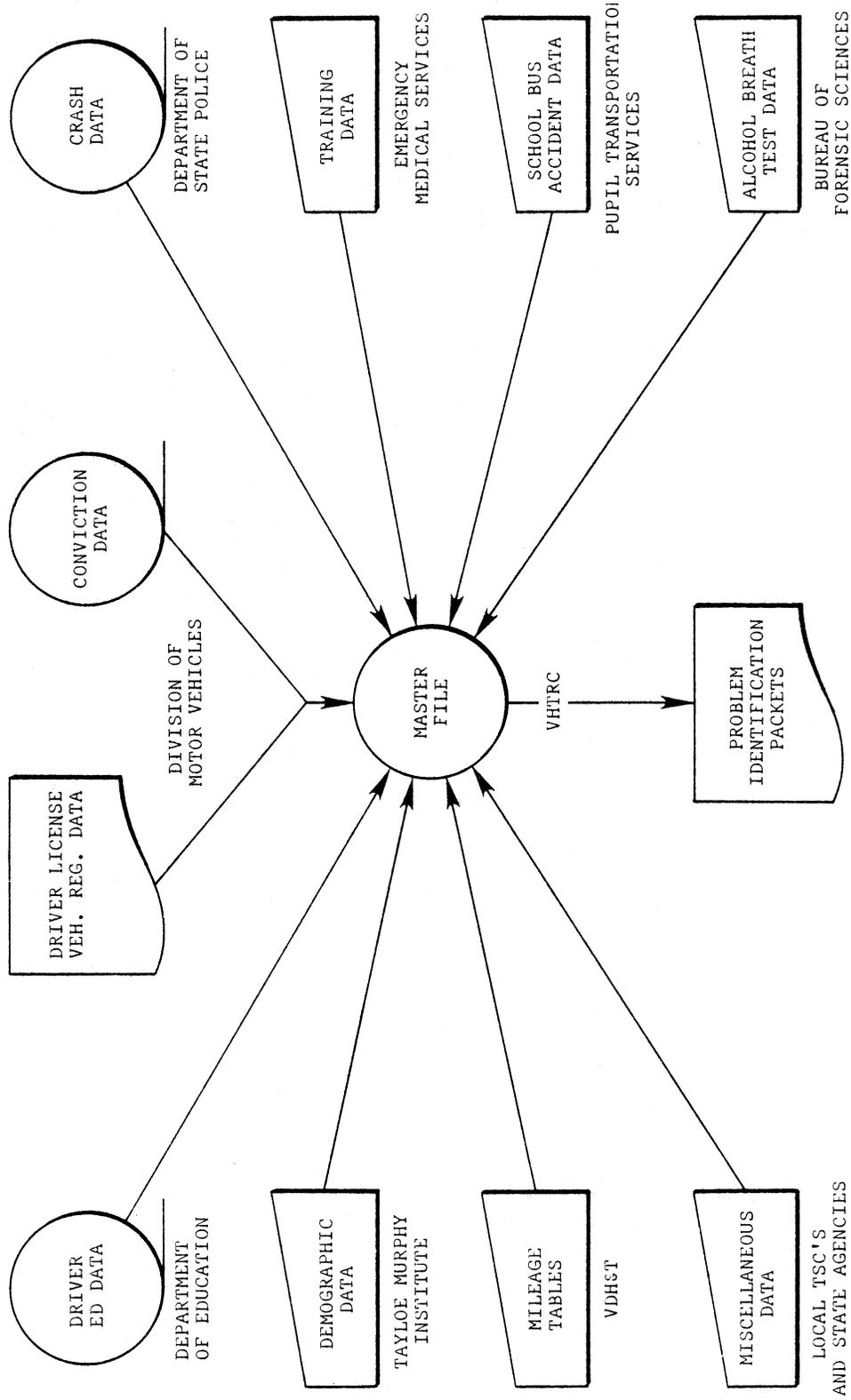


Figure 1. Data sources for the HSP master file.

A summary of the level of automation achieved by program area is provided at the end of this section.

Department of State Police

The Research Council receives a tape of annual crash data from the Department of State Police (DSP) each year. This information is used in various ongoing safety research projects. Generalized crash data, as well as data in the pedestrian safety, pupil transportation, and accident investigation and reporting program areas, are pulled from the DSP crash tape for use in preparing the PID packets. Prior to the initiation of the report program, the desired data were retrieved from the crash tape in the form of a computer printout and then transferred onto the pages of the PID's. Since that time, a program has been written which pulls the data from the crash tape to be directly interfaced with the crash program and the report program. Thus, 100% of the accident data received from the DSP are now automatically processed for use in the HSP.

Division of Motor Vehicles

Information in the driver licensing and vehicle registration, traffic courts, and traffic summons program areas is supplied to the Council by the Division of Motor Vehicles (DMV) for use in preparing the annual HSP. This information was previously supplied in the form of computer printouts and had to be processed manually.

The Council now receives a source tape of data from the DMV and, as in the case for the DSP, this information is automatically processed through the use of a computer program. Thus, three additional sections of the program data packet are fully automated.

Department of Education

Information concerning the Department of Education's (DED) driver education program is included in the PID packets. The original source of this information is the annual driver education status report questionnaire, which is completed by every public and private school in the state conducting a driver education program. Although the resources were available at the DED, this information was not computerized and prior to 1980 had to be manually extracted from DED files for use in the HSP.

In April 1980, a VDTS-sponsored project was undertaken between the Research Council and the DED to automate the questionnaire

data. The purpose of the project was twofold: (1) to automate the production of two DED status reports, and (2) to provide files of specific data related to the DED programs for use in preparing the HSP PID packets. Under the agreement, the Council developed and implemented a software system to process the driver education questionnaire. Council personnel keypunched and processed the data the first year, and in ensuing years the responsibility for processing the data fell to the DED. In return for this service, the Council now has access to the computer file of data for use in the HSP.

In developing the program to automate the driver education data, the Council not only served its own information needs but also contributed to the efficiency of the DED's program administration and evaluation.

Automation of Data From Other State Agencies

In the fall of 1979, the Research Council explored the possibilities of initiating projects similar to the one with DED to automate the data files of other state agencies. Information from the files of the Bureau of Emergency Medical Services (EMS), the Pupil Transportation Services (PTS), and the Bureau of Forensic Sciences (BFS) was still manually retrieved for use in producing the HSP PID packets. Unfortunately, to date the success of the project with DED has not been repeated with these agencies.

The EMS has been working in conjunction with State Management Analysis and Systems Development (MASD) personnel during the last year to determine the economic feasibility of automating EMS personnel licensure, certification and training data. It appears as if it may be possible to create a system to link EMS data into a system with two other state agencies. If realized, under this agreement MASD would absorb the start-up costs and EMS (and the other two agencies) would be responsible for operational costs. The outcome of this effort should be resolved within the next few months. If the agreement can be concluded, it would be a relatively easy task to annually obtain a computer tape of EMS personnel and equipment data and incorporate it into the master file.

Efforts to initiate similar projects with PTS and BFS have not been as positive, due to the several factors. In the case of PTS, limitations in agency staff and resources prevent the undertaking of a project of this scale. It appears from discussions with BFS personnel that the management emphasis of their program differs from that of the HSP, and the development of a computer file would actually create more work than the BFS could handle to produce data which would be of questionable value in light of their present information needs.

To summarize, progress has been made towards achieving complete automation of the HSP master file. The efficiency of the dissemination phase of the production of the PID packets has been improved through the development of the report program. Data from the DSP, the DMV, and the DED, which were formerly received in computer printout form or manually extracted from files, are now fully automated and integrated with the crash data and report programs. Although the other state agencies involved have been receptive to the concept of automating the files they maintain, practical considerations have prevented complete automation of the entire system.

Update of the Master File by Highway Safety Standard Program Area

The following section outlines the status of the master file by standard program area, with special emphasis on the source of the data and the current level of automation. The location of the information within the problem identification packets is noted, and a sample packet is appended for reference.

General Information (A-1)

1. Population — These data originate from a brochure prepared by the University of Virginia's Tayloe Murphy Institute. The data change annually and therefore require annual keypunching. It is unlikely that computerized information for this entry will become available in the near future.
2. Number of Licensed Drivers and Registered Vehicles — This information is still supplied in computer printout form from the DMV and is keypunched into the format program each year.
3. Road Miles — This information is gathered from Mileage Tables, a publication of the Virginia Department of Highways and Transportation. The mileage for some localities changes periodically and therefore requires additional keypunching. In other instances, the data are unchanged and the previous year's data are recalled for use. It is unlikely this information will be automated.
4. Crash Data — These data were formerly printed out from the DSP crash tape and manually keypunched into the

program. This activity is completely automated; a program has been written which interfaces the master file program and the report program with the source tape.

Motorcycle Safety (A-2)

1. Crash Data — This section is now completely automated in the manner described in A-1 (4) above.
2. Training Data — The source of this information is the DED driver education program. Previously, these data were manually collected from DED files. Through a joint effort undertaken by the DED and the Council, DED files are now completely automated and this information is available to the Council in computer tape form to be directly interfaced with the master file program.

Driver Education (A-3, A-4)

The source tape for this information is now available through the activity described in A-2 (2) above.

Traffic Courts (A-5)

These data, formerly available only in computer printout form, are now processed directly from the DMV conviction tape supplied to the Council for this purpose.

Codes and Laws (A-5)

This information, supplied by the localities, rarely changes. It is keypunched into the report program and automatically recalled year-to-year.

Alcohol in Relation to Highway Safety (A-6)

1. Breath Test Data — These data are received in brochure form from the BFS Consolidated Laboratories and keypunched into the program annually. An effort was initiated with the Bureau to convert these data into a computerized format, but to date automation of the data has not been achieved.

2. Crash Data — This information was formerly derived from a computer printout prepared by the Virginia Accident Safety Action Program. It differs from the crash data described above in that the data are described as percentages rather than absolute figures. The data are now pulled off directly from the DSP-crash tape, and a third program has been written to perform the necessary calculations and to interface the master file program with the report program.

Identification and Surveillance of Accident Locations (A-7)
Highway Design, Construction and Maintenance (A-10, A-11)
Traffic Engineering Services (A-12, A-13)

The data for these three standard areas follow the same pattern. For all counties except Henrico and Arlington, the data are the same, since this subject matter is under the control of the Virginia Department of Highways & Transportation. For all cities, plus the counties of Henrico and Arlington, the data are unique to each location. The data for both counties and cities are keypunched into the format program and rarely change.

Traffic Records (A-8)
Debris, Hazard Control, and Cleanup (A-16)

As in the previous three standard areas, the information for these two pages rarely changes, thus making them easily adapted for use with the report program. However, these standard areas do not fall under the control of any single state agency. Thus, any changes in the data could come from a number of state agencies as well as from various county and city commissions. The complete automation of these standard areas is highly improbable.

Emergency Medical Services (A-9)

The source of EMS data is filed information which is manually collected and keypunched into the system. The data change extensively from year to year. The possibility of automating the licensure, certification, and training data is being explored by EMS and MASD, and should be resolved in the near future.

Pedestrian Safety (A-14)

As with the other crash data from the DSP tape, the information in this program area is now automatically retrieved from the source tape and interfaced with the report program.

Police Traffic Services (A-15)

1. Program Data and System Operation — These data are not maintained by a single agency and must be manually gathered from the local commissions. Therefore, this area does not lend itself to automation.
2. Traffic Summons Data — These data, which were formerly keypunched from computer printouts, are now automatically pulled off the DSP crash tape and interfaced with the report program.

Pupil Transportation Safety (A-17)

1. School Bus Operations — These data, received in brochure form from Pupil Transportation Services, are keypunched annually into the system. The data change extensively from year to year. The possibility of automating the PTS's files has been discussed. However, it appears this activity will not be undertaken in the near future.
2. Crash Data — This information is now automatically retrieved and processed from the DSP source tape.

Accident Investigation and Reporting (A-18)

Data in this standard area, formerly keypunched from computer printouts, are now automatically retrieved and processed from the DSP source tape.

CONCLUSIONS AND RECOMMENDATIONS

Access to timely, reliable data is a prerequisite for the sound management of highway safety programs. The development of the master file has provided the state with a viable data base for safety planning and evaluation. The increased availability of data has been useful to state and local agencies in their problem identification and countermeasure development.

Since the problem identification process is central to the concept of the HSP, the master file project has provided support to the state in responding to the requirements of the federal 402 funding program. The recent project developments described in this report have achieved optimal utilization of time and personnel resources in preparing the PID's and the annual HSP.

The changes imposed on highway safety programs by the new federal administration make it difficult to predict the future of the HSP and the impact on the roles of state and local agencies within the program. The NHTSA intends to streamline the HSP, and "to focus federal funding assistance in those areas which have a maximum probability of reducing death and injury on the highway or are necessary to support the continuation of effective programs or required to identify problem areas or measure results."

The new administration has recommended that NHTSA emphasize the following program areas in the upcoming years, with a higher priority being placed upon the first four program areas.

1. Alcohol countermeasures,
2. police traffic services,
3. emergency medical services,
4. traffic records,
5. motorcycle safety, and
6. pedestrian safety.

Specified areas within these programs will automatically be considered eligible for funding (e.g., EMS training). Funding will be available for other activities outside these areas if sufficient justification is provided. In addition, the state reporting and evaluation requirements will be reduced, and the HSP will be trimmed down to focus on the NHTSA's priority areas. At present, the new requirements have not been officially issued and their impact on the HSP cannot be evaluated conclusively.

In the face of uncertain funding and policy changes it is difficult to forecast the future of the master file project. At the inception of the project in 1976, the goal of achieving complete automation among the agencies involved in the development of the master file was deemed to be a reasonable task by the VDTs administrators and the research personnel involved. However, at the present time that goal may be unrealistic due to management and budget constraints.

The value of the master file program to the state's highway safety program must be viewed not only in terms of its significance to the HSP program, but also in terms of the internal accomplishments in data processing and analysis which have been achieved by the individual state agencies in conjunction with the HSP.

Perhaps the reduction in program funds makes the objectives of the master file program more important now than ever before. It may be possible to continue the program with emphasis on data in the program areas proposed above.

Regardless of the direction the new federal highway safety administration may take, the master file will continue to serve as a useful problem identification and program management tool for Virginia's state and local safety agencies.

In light of the information presented in this update on the progress of the master file project, the following recommendations are offered:

1. The VDTS administrators should closely monitor the activities of the new federal highway safety administration to ascertain the economic and administrative impacts of changing federal policies on the HSP and the master file project.
2. Once these impacts are evaluated, the VDTS should determine the importance of the master file project to Virginia's overall highway safety program management, and should prescribe any changes in program emphasis or level-of-effort required in the continuation of the project.

APPENDIX
SAMPLE PROBLEM IDENTIFICATION PACKET

GENERAL INFORMATION:

COMMISSION DATA

	<u>1977</u>	<u>1978</u>	<u>1979</u>
A. POPULATION			
B. NO. LICENSED DRIVERS			
C. NO. REGISTERED VEHICLES			
D. NO. ROAD MILES - STATE SYSTEM			
E. NO. ROAD MILES - NON-STATE SYSTEM			

CRASH DATA

	<u>1977</u>	<u>1978</u>	<u>1979</u>
F. FATAL CRASHES			
G. PERSONS KILLED			
H. PERSONAL INJURY CRASHES			
I. PERSONS INJURED			
J. PROPERTY DAMAGE CRASHES			
K. TOTAL NUMBER OF CRASHES			

MOTORCYCLE SAFETY

CRASH DATA

	<u>1977</u>	<u>1978</u>	<u>1979</u>
A. FATAL MOTORCYCLE CRASHES			
B. MOTORCYCLISTS KILLED			
C. MOTORCYCLE INJURY CRASHES			
D. MOTORCYCLISTS INJURED			
E. PROPERTY DAMAGE CRASHES			

TRAINING DATA

SCHOOL YEAR 1979-1980

	<u>PUBLIC</u>	<u>NON-PUBLIC</u>
F. NUMBER OF SCHOOLS CONDUCTING A STATE-APPROVED MOTORCYCLE EDUCATION PROGRAM AS A PART OF THE DRIVER EDUCATION PROGRAM		
G. NUMBER OF SCHOOLS CONDUCTING A STATE-APPROVED MOTORCYCLE EDUCATION PROGRAM AS A SPECIAL COURSE OF INSTRUCTION		
H. NUMBER OF STUDENTS SUCCESSFULLY COMPLETING A STATE-APPROVED MOTORCYCLE EDUCATION PROGRAM		

DRIVER EDUCATION

PROGRAM DATA

SCHOOL YEAR 1979-1980

PUBLIC NON-PUBLIC

- A. NO. OF SECONDARY SCHOOLS
- B. NO. SCHOOLS TEACHING DRIVER ED. TO:
 - 1. YOUTH IN SCHOOL
 - 2. YOUTH OUT OF SCHOOL
 - 3. ADULTS
- C. NO. OF DRIVER ED. TEACHERS
- D. NO. OF SCHOOLS UTILIZING EACH DRIVER ED. PROGRAM:
 - 1. CLASS ONLY
 - 2. CLASS AND ON-STREET
 - 3. CLASS AND RANGE
 - 4. CLASS AND SIMULATOR
 - 5. CLASS, ON-STREET, SIMULATOR
 - 6. CLASS, RANGE, SIMULATOR
 - 7. CLASS, ON-STREET, RANGE
 - 8. CLASS, SIMULATOR, ON-STREET, RANGE
 - 9. ON-STREET ONLY
- E. TENTH GRADE ENROLLMENT
- F. NO. COMPLETING DRIVER ED. COURSE
- G. OF THOSE COMPLETING A DRIVER ED. COURSE, THE NUMBER TAUGHT IN:
 - 1. CLASS AND IN-CAR
 - 2. CLASS ONLY
 - 3. IN-CAR ONLY
- H. OF THOSE ENROLLED IN A DRIVER ED. COURSE, THE NUMBER TAUGHT ON:
 - 1. SIMULATORS
 - 2. RANGES
- I. NO. COMPLETING DRIVER ED. FROM A PUBLIC SCHOOL
- J. NO. COMPLETING COURSE FROM A NON-PUBLIC SCHOOL

16-18 YR. YOUTH OUT
OLD STUDENT OF SCHOOL ADULT

COMMERCIAL SCHOOLS

1978-79 DATA

K. NO. OF 16-18 YEAR OLD STUDENTS TO BE INSTRUCTED BY
A STATE-APPROVED COMMERCIAL SCHOOL IN:

1. CLASSROOM
2. IN-CAR

L. NO. OF STATE-APPROVED (LICENSED TO TEACH 16-18 YEAR
OLDS) COMMERCIAL SCHOOLS

M. NO. OF STATE-APPROVED TEACHERS IN THESE SCHOOLS

TRAFFIC COURTS

TRAFFIC SUMMONS DATA

NO. CONVICTED BY
COURT JURISDICTION

VIOLATION TYPE

A. DRIVER VIOLATIONS

1. SPEED OVER POSTED LIMIT
2. FAILURE TO STOP FOR SCHOOL BUS,
OR RECKLESS DRIVING WHILE ON CHURCH,
SCHOOL, OR BUS PROPERTY
3. DISREGARDED STOP SIGN
4. DISREGARDED YIELD SIGN
5. DISREGARDED TRAFFIC SIGNAL
6. DROVE IN WRONG DIRECTION ON ROAD
7. FOLLOWED TOO CLOSELY
8. MADE IMPROPER TURN
9. FAILED TO YIELD RIGHT-OF-WAY
10. IMPROPER PASSING, OVERTAKING,
DRIVING
11. D.W.I./ABILITY IMPAIRED BY ALCOHOL
AND/OR DRUGS
12. RECKLESS DRIVING
13. HIT AND RUN
14. DRIVING W/O LICENSE OR UNDER
SUSPENSION OR REVOCATION
15. REFUSED BLOOD/BREATH TEST
16. FAILURE TO OBEY TRAFFIC
CONTROL DEVICES
17. OTHER
18. TOTAL

B. EQUIPMENT VIOLATIONS

CODES AND LAWS

- C. HAS YOUR LOCALITY ADOPTED MODEL TRAFFIC
ORDINANCES WHICH ARE COMPATIBLE WITH THE
CODE OF VIRGINIA?

ALCOHOL IN RELATION TO HIGHWAY

A. BREATH TEST DATA

1. NO. TESTS ADMINISTERED:

- A. STATE POLICE (STATEWIDE)
- B. LOCAL POLICE
- C. TOTAL POLICE (STATEWIDE)

2. NO. LICENSED OPERATORS:

- A. STATE POLICE (STATEWIDE)
- B. LOCAL POLICE
- C. TOTAL POLICE (STATEWIDE)

3. NO. BREATHALYZER INSTRUMENTS IN USE:

- A. STATE POLICE (STATEWIDE)
- B. LOCAL POLICE
- C. PRIVATE LAW ENFORCEMENT PERSONNEL (STATEWIDE)
- D. TOTAL (STATEWIDE)

B. CRASH DATA (LOCALITY)

1. PERCENT OF ACCIDENTS WHICH ARE ALCOHOL-RELATED:

- A. TOTAL ACCIDENTS
- B. FATAL ACCIDENTS
- C. INJURY ACCIDENTS

2. PERCENT OF DEATHS AND INJURIES WHICH ARE ALCOHOL-RELATED:

- A. DEATHS
- B. INJURIES

3. PERCENT OF VEHICLE-PEDESTRIAN ACCIDENTS INVOLVING PEDESTRIANS WHO WERE DRINKING

4. PERCENT OF VEHICLE-PEDESTRIAN ACCIDENTS INVOLVING DRIVERS WHO WERE DRINKING

5. NO. ACCIDENTS INVOLVING DRINKING DRIVERS OR PEDESTRIANS

IDENTIFICATION & SURVEILLANCE OF ACCIDENT LOCATIONS

PROGRAM DATA

A. NUMBER OF LOCATIONS ON THE FOLLOWING ROADWAY SYSTEMS SELECTED FOR:

	<u>REVIEW</u>	<u>IN-DEPTH STUDY</u>	<u>RECOMMENDED FOR APPROVAL</u>
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1. INTERSTATE
2. ARTERIAL & PRIMARY
3. SECONDARY
4. URBAN (OVER 3,500 POP.)

TOTAL

COMMENTS:

B. INDICATE IF THE HIGH ACCIDENT LOCATIONS ARE IDENTIFIED BY:

	<u>SPOT LOCATIONS</u>	<u>ROADWAY SECTIONS</u>
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1. INTERSTATE
2. ARTERIAL & PRIMARY
3. SECONDARY - SELECTED ROUTES ONLY
4. URBAN (OVER 3,500 POP.)

COMMENTS:

C. INDICATE IF THE HIGH ACCIDENT LOCATIONS ARE IDENTIFIED BY AN ACCIDENT SEVERITY:

	<u>SPOT LOCATIONS</u>	<u>ROADWAY SECTIONS</u>
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1. INTERSTATE
2. ARTERIAL & PRIMARY
3. SECONDARY
4. URBAN (OVER 3,500 POP.)

COMMENTS:

LOCAL TRAFFIC RECORDS SYSTEM

CATEGORY AND COMPONENT

STATUS
INCLUDED AUTOMATED

- A. DRIVER SUBSYSTEM
 - 1. VIOLATION CONVICTIONS
 - 2. SUSPENSION/REVOCATIONS
 - 3. ALCOHOL RELATED CONVICTIONS
 - 4. ACCIDENT INVOLVEMENTS

- B. VEHICLE SUBSYSTEM
 - 1. STOLEN
 - 2. ABANDONMENT

- C. HIGHWAY SUBSYSTEMS
 - 1. PHYSICAL FEATURES INVENTORY
 - 2. ACCIDENT LOCATION HISTORY
 - 3. TRAFFIC CHARACTERISTICS
 - 4. MAINTENANCE

- D. ACCIDENT SUBSYSTEM
 - 1. INVESTIGATION REPORTS

- E. EMERGENCY SERVICES SUBSYSTEM
 - 1. EMERGENCY MEDICAL SERVICES INVENTORY SUMMARY

- F. TRAFFIC LAW ENFORCEMENT AND ADJUDICATION
 - 1. CONVICTIONS DATA SUMMARY
 - 2. NON-CONVICTIONS DATA SUMMARY
 - 3. ENFORCEMENT INDEX

- G. SAFETY PROGRAM MANAGEMENT SUBSYSTEM
 - 1. NATIONAL SAFETY COUNCIL REPORTS
 - 2. TRAFFIC LAW ENFORCEMENT SUMMARY
 - 3. ACCIDENT FACTORS SUMMARY

EMERGENCY MEDICAL SERVICES

PROGRAM DATA

A. NO. OF RESCUE SQUAD AGENCIES:

1. VOLUNTEER
2. PRIVATE
3. POLICE/FIRE/MUNICIPAL

PERSONNEL AND TRAINING

B. NO. OF EMS AMBULANCE PERSONNEL WITH TRAINING IN THE FOLLOWING:

	<u>VOLUNTEER</u>	<u>PRIVATE</u>	<u>P/F/M</u>
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1. STANDARD FIRST AID
2. ADVANCED FIRST AID
3. DOT 81 HOUR COURSE
(CERTIFIED EMT@S)
4. TOTAL NO. EMS AMBULANCE
PERSONNEL
5. CERTIFIED EMT LAY INSTRUCTORS
IN COMMISSION
6. CERTIFIED CARDIAC EMT@S IN
COMMISSION

C. NO. OF COMMUNITY COLLEGES THAT HAVE EDUCATIONAL AIDS TO SUPPORT BASIC-EMT AND DOT CRASH INJURY COURSES (STATEWIDE)

EQUIPMENT

D. NO. OF LICENSED AMBULANCES

	<u>MEET STATE STANDARDS</u>	<u>MEET FED. STANDARDS*</u>	<u>TOTAL</u>
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1. VOLUNTEER
2. PRIVATE
3. POLICE/FIRE/MUNICIPAL

*DOT SPECS. KKK-A-1822

COMMUNICATIONS

E. NO. OF LICENSED AMBULANCES WITH TWO-WAY RADIO COMMUNICATIONS

	<u>VOLUNTEER</u>	<u>PRIVATE</u>	<u>P/F/M</u>
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1. TO HOSPITAL ONLY
2. TO DISPATCHER ONLY
3. TO BOTH
4. TOTAL WITH TWO-WAY RADIOS

HIGHWAY DESIGN, CONSTRUCTION & MAINTENANCE

PROGRAM DATA

PLEASE NOTE IF THE FOLLOWING EXIST:

- A. DESIGN STANDARDS RELATING TO SAFETY FEATURES SUCH AS SIGHT DISTANCE, HORIZONTAL AND VERTICAL CURVATURE, SPACING OF DECISION POINTS, WIDTH OF LANES, ETC., FOR ALL NEW CONSTRUCTION OR RECONSTRUCTION, AT LEAST ON EXPRESSWAYS, MAJOR STREETS AND HIGHWAYS, AND THROUGH STREETS AND HIGHWAYS.
- B. STREET SYSTEMS DESIGNED TO PROVIDE A SAFE TRAFFIC ENVIRONMENT FOR PEDESTRIANS AND MOTORISTS WHEN SUBDIVISIONS AND RESIDENTIAL AREAS ARE DEVELOPED OR REDEVELOPED.
- C. ROADWAY LIGHTING IS PROVIDED OR UPGRADED ON A PRIORITY BASIS AT THE FOLLOWING LOCATIONS:
 - 1. EXPRESSWAYS AND OTHER MAJOR ARTERIES IN URBANIZED AREAS.
 - 2. JUNCTIONS OF MAJOR HIGHWAYS IN RURAL AREAS.
 - 3. LOCATIONS OR SECTIONS OF STREETS AND HIGHWAYS HAVING HIGH RATIOS OF NIGHT-TO-DAY MOTOR VEHICLE AND/OR PEDESTRIAN ACCIDENTS.
 - 4. TUNNELS AND LONG UNDERPASSES.
- D. STANDARDS FOR PAVEMENT DESIGN AND CONSTRUCTION WITH SPECIFIC PROVISIONS FOR HIGH SKID RESISTANCE QUALITIES.
- E. A PROGRAM FOR RESURFACING OR OTHER SURFACE TREATMENT WITH EMPHASIS ON CORRECTION OF LOCATIONS OR SECTIONS OF STREETS AND HIGHWAYS WITH LOW SKID RESISTANCE AND HIGH OR POTENTIALLY HIGH ACCIDENT RATES SUSCEPTIBLE TO REDUCTION BY PROVIDING IMPROVED SURFACES.
- F. A SYSTEM OF GUIDANCE, WARNING AND REGULATION OF TRAFFIC APPROACHING AND TRAVELING OVER CONSTRUCTION OR REPAIR SITES AND DETOURS.
- G. A SYSTEMATIC IDENTIFICATION AND TABULATION OF ALL RAILWAY GRADE CROSSINGS AND A PROGRAM FOR THE ELIMINATION OF HAZARDS AND DANGEROUS CROSSINGS.
- H. A PROGRAM TO INSURE THAT ROADWAYS AND ROADSIDES ARE MAINTAINED CONSISTENT WITH THE DESIGN STANDARDS WHICH ARE FOLLOWED IN CONSTRUCTION TO PROVIDE SAFE AND EFFICIENT MOVEMENT OF TRAFFIC.

- I. A PROGRAM WHICH IDENTIFIES AND CORRECTS HAZARDS WITHIN THE HIGHWAY RIGHT-OF-WAY.
- J. HIGHWAY DESIGN AND CONSTRUCTION FEATURES WHEREVER POSSIBLE FOR ACCIDENT PREVENTION AND SURVIVABILITY, INCLUDING AT LEAST THE FOLLOWING:
 - 1. ROADSIDES CLEAR OF OBSTACLES, WITH CLEAR DISTANCE BEING DETERMINED ON THE BASIS OF TRAFFIC VOLUMES, PREVAILING SPEEDS, AND THE NATURE OF DEVELOPMENT ALONG THE STREET OR HIGHWAY.
 - 2. SUPPORT FOR TRAFFIC SIGNS AND LIGHTING THAT ARE DESIGNED TO YIELD OR BREAK AWAY UNDER IMPACT WHEREVER APPROPRIATE.
 - 3. PROTECTIVE DEVICES THAT AFFORD MAXIMUM PROTECTION TO THE OCCUPANTS OF VEHICLES WHEREVER FIXED OBJECTS CANNOT REASONABLY BE REMOVED OR DESIGNED TO YIELD.
 - 4. BRIDGE RAILINGS AND PARAPETS WHICH ARE DESIGNED TO MINIMIZE SEVERITY OF IMPACT, TO RETAIN THE VEHICLE, TO REDIRECT THE VEHICLE SO THAT IT WILL MOVE PARALLEL TO THE ROADWAY, AND TO MINIMIZE DANGER TO TRAFFIC BELOW.
 - 5. GUARDRAILS, AND OTHER DESIGN FEATURES WHICH PROTECT PEOPLE FROM OUT-OF-CONTROL VEHICLES AT LOCATIONS OF SPECIAL HAZARD SUCH AS PLAYGROUNDS, SCHOOLYARDS, AND COMMERCIAL AREAS.
- K. A POST-CRASH PROGRAM WHICH INCLUDES AT LEAST THE FOLLOWING:
 - 1. SIGNS AT FREEWAY INTERCHANGES DIRECTING MOTORISTS TO HOSPITALS HAVING EMERGENCY CARE CAPABILITIES.
 - 2. MAINTENANCE PERSONNEL TRAINED IN PROCEDURES FOR SUMMONING AID, PROTECTING OTHERS FROM HAZARDS AT ACCIDENT SITES, AND REMOVING DEBRIS.
 - 3. PROVISIONS FOR ACCESS AND EGRESS FOR EMERGENCY VEHICLES TO FREEWAY SECTIONS WHERE THIS WOULD SIGNIFICANTLY REDUCE TRAVEL TIME WITHOUT REDUCING THE SAFETY BENEFITS OF ACCESS CONTROL.

TRAFFIC ENGINEERING SERVICES

PLEASE NOTE IF THE FOLLOWING EXIST:

- A. A COMPREHENSIVE MANPOWER DEVELOPMENT PLAN TO PROVIDE THE NECESSARY TRAFFIC ENGINEERING CAPABILITY INCLUDING:
 1. PROVISIONS FOR SUPPLYING TRAFFIC ENGINEERING ASSISTANCE TO THOSE JURISDICTIONS UNABLE TO JUSTIFY A FULL-TIME TRAFFIC ENGINEERING STAFF.
 2. PROVISIONS FOR UPGRADING THE SKILLS OF PRACTICING TRAFFIC ENGINEERS, AND PROVIDE BASIC INSTRUCTION IN TRAFFIC ENGINEERING TECHNIQUES TO SUBPROFESSIONALS AND TECHNICIANS.
- B. UTILIZATION OF TRAFFIC ENGINEERING PRINCIPLES AND EXPERTISE IN THE PLANNING, DESIGN, CONSTRUCTION, AND MAINTENANCE OF THE PUBLIC ROADWAYS, AND IN THE APPLICATION OF TRAFFIC CONTROL DEVICES.
- C. A TRAFFIC CONTROL DEVICES PLAN INCLUDING:
 1. AN INVENTORY OF ALL TRAFFIC CONTROL DEVICES.
 2. PERIODIC REVIEW OF EXISTING TRAFFIC CONTROL DEVICES, INCLUDING A SYSTEMATIC UPGRADING OF SUBSTANDARD DEVICES TO CONFORM WITH STANDARDS ISSUED OR ENDORSED BY THE FEDERAL HIGHWAY ADMINISTRATOR.
 3. A MAINTENANCE SCHEDULE ADEQUATE TO INSURE PROPER OPERATION AND TIMELY REPAIR OF CONTROL DEVICES, INCLUDING DAYTIME AND NIGHTTIME INSPECTIONS.
 4. WHERE APPROPRIATE, THE APPLICATION AND EVALUATION OF NEW IDEAS AND CONCEPTS IN APPLYING CONTROL DEVICES AND IN MODIFYING EXISTING DEVICES TO IMPROVE THEIR EFFECTIVENESS THROUGH CONTROLLED EXPERIMENTATION.

D. AN IMPLEMENTATION SCHEDULE TO UTILIZE TRAFFIC ENGINEERING MANPOWER TO:

1. REVIEW ROAD PROJECTS DURING THE PLANNING, DESIGN, AND CONSTRUCTION STAGES TO DETECT AND CORRECT FEATURES THAT MAY LEAD TO OPERATIONAL SAFETY DIFFICULTIES.
2. INSTALL SAFETY-RELATED IMPROVEMENTS AS A PART OF ROUTINE MAINTENANCE AND/OR REPAIR ACTIVITIES.
3. CORRECT CONDITIONS NOTED DURING ROUTINE OPERATIONAL SURVEILLANCE OF THE ROADWAY SYSTEM TO RAPIDLY ADJUST FOR THE CHANGES IN TRAFFIC AND ROAD CHARACTERISTICS AS A MEANS OF REDUCING ACCIDENT FREQUENCY OR SEVERITY.
4. CONDUCT TRAFFIC ENGINEERING ANALYSES OF ALL HIGH ACCIDENT LOCATIONS AND DEVELOP CORRECTIVE MEASURES.
5. ANALYZE POTENTIALLY HAZARDOUS LOCATIONS, SUCH AS SHARP CURVES, STEEP GRADES, AND RAILROAD GRADE CROSSINGS AND DEVELOP APPROPRIATE COUNTERMEASURES.
6. IDENTIFY TRAFFIC CONTROL NEEDS AND DETERMINE SHORT AND LONG RANGE REQUIREMENTS.
7. EVALUATE THE EFFECTIVENESS OF SPECIFIC TRAFFIC CONTROL MEASURES IN REDUCING THE FREQUENCY AND SEVERITY OF TRAFFIC ACCIDENTS.
8. CONDUCT TRAFFIC ENGINEERING STUDIES TO ESTABLISH TRAFFIC REGULATIONS SUCH AS FIXED OR VARIABLE SPEED LIMITS.

PEDESTRIAN SAFETY

EDUCATION

THE CODE OF VIRGINIA, TITLE 22-235, STATES THAT IN "ONE OR MORE OF THE ELEMENTARY GRADES OR IN ONE OR MORE OF THE HIGH SCHOOL GRADES OF EVERY PUBLIC SCHOOL THERE SHALL BE PROVIDED A COURSE OF STUDY INCLUDING ELEMENTARY TRAINING IN ACCIDENT PREVENTION, AND IN PROPER CONDUCT ON STREETS AND HIGHWAYS.... SUCH COURSE SHALL BE REQUIRED OF EVERY PUPIL...." THEREFORE, ALL STUDENTS ATTENDING PUBLIC SCHOOLS HAVE RECEIVED OR WILL RECEIVE INSTRUCTIONS IN PEDESTRIAN SAFETY.

CRASH DATA

	<u>1977</u>	<u>1978</u>	<u>1979</u>
A. NO. ACCIDENTS INVOLVING PEDESTRIANS			
B. NO. PEDESTRIANS INJURED			
C. NO. PEDESTRIAN FATALITIES			
D. NO. BICYCLISTS INJURED			
E. NO. BICYCLIST FATALITIES			
F. NO. NIGHTTIME PEDESTRIAN DEATHS			
G. NO. DAYTIME PEDESTRIAN DEATHS			
H. NO. NIGHTTIME PEDESTRIAN INJURIES			
I. NO. DAYTIME PEDESTRIAN INJURIES			
J. NO. UNKNOWN TIME PEDESTRIAN INJURIES			

POLICE TRAFFIC SERVICES - STATE

A. MANPOWER DATA

1. NUMBER OF POLICE OFFICERS ASSIGNED TO HIGHWAY SAFETY TRAFFIC ACTIVITIES PART-TIME (85% HIGHWAY SAFETY ACTIVITIES)
2. AVERAGE MAN-DAYS DEVOTED MONTHLY TO TRAFFIC SERVICES

B. TRAFFIC OPERATIONS

1. TOTAL NUMBER OF ACCIDENTS REPORTED TO THE STATE
2. NUMBER OF TRAFFIC ACCIDENTS REPORTED ON HIGHWAYS WHERE STATE POLICE DEPARTMENT EXERCISED PATROL RESPONSIBILITY
3. NUMBER OF FATAL TRAFFIC ACCIDENTS OCCURRING ON HIGHWAYS WHERE STATE POLICE DEPARTMENT EXERCISES PATROL RESPONSIBILITY

C. SYSTEM OPERATION

1. APPROXIMATE MILEAGE COVERED PER POLICE OFFICER
2. APPROXIMATE NUMBER OF ACCIDENTS INVESTIGATED PER OFFICER PER MONTH
3. APPROXIMATE NUMBER OF D.W.I. ARRESTS PER OFFICER PER MONTH

TRAFFIC SUMMONS DATA - LOCAL

D. DRIVER VIOLATIONS

NO. CONVICTIONS BY
RESIDENCE JURISDICTION

1. SPEED OVER POSTED LIMIT
2. FAILURE TO STOP FOR SCHOOL BUS,
OR RECKLESS DRIVING WHILE ON CHURCH,
SCHOOL, OR BUS PROPERTY
3. DISREGARDED STOP SIGN
4. DISREGARDED YIELD SIGN
5. DISREGARDED TRAFFIC SIGNAL
6. DROVE IN WRONG DIRECTION ON ROAD
7. FOLLOWED TOO CLOSELY
8. MADE IMPROPER TURN
9. FAILED TO YIELD RIGHT-OF-WAY
10. IMPROPER PASSING, OVERTAKING,
DRIVING
11. D.W.I./ABILITY IMPAIRED BY ALCOHOL
AND/OR DRUGS
12. RECKLESS DRIVING
13. HIT AND RUN
14. DRIVING W/O LICENSE OR UNDER
SUSPENSION OR REVOCATION
15. REFUSED BLOOD/BREATH TEST
16. FAILURE TO OBEY TRAFFIC
CONTROL DEVICES
17. OTHER
18. TOTAL

E. EQUIPMENT VIOLATIONS

577

DEBRIS. HAZARD CONTROL & CLEANUP
PROGRAM DATA

ROADWAY OPERATIONS

URBAN

RURAL

- A. NUMBER OF ACCIDENTS FOR WHICH RESCUE AND/OR SALVAGE EQUIPMENT PERSONNEL WERE DISPATCHED
- B. NUMBER OF INCIDENTS INVOLVING DEBRIS OR HAZARD FOR WHICH RESCUE AND/OR SALVAGE EQUIPMENT PERSONNEL WERE DISPATCHED
- C. NUMBER OF OPERATIONAL UNITS AVAILABLE FOR RESCUE AND/OR SALVAGE OPERATIONS ON A 24-HOUR BASIS
- D. NUMBER OF SECONDARY MOTOR VEHICLE ACCIDENTS RESULTING IN PART FROM INADEQUACIES IN DEBRIS REMOVAL
- E. AVERAGE NUMBER OF MINUTES BETWEEN ACCIDENT OCCURRENCE AND NOTIFICATION OF RESCUE AND/OR SALVAGE EQUIPMENT PERSONNEL
- F. AVERAGE NUMBER OF MINUTES FROM NOTIFICATION FOR RESCUE AND/OR SALVAGE EQUIPMENT PERSONNEL TO REACH SCENE OF ACCIDENT
- G. AVERAGE TIME (IN MINUTES) FROM ACCIDENT OCCURRENCE TO RESTORE FACILITY TO NORMAL USE
- H. NUMBER OF INCIDENTS RESULTING FROM SPILLAGE OF HAZARDOUS MATERIALS
- I. NUMBER OF ACCIDENTS INVOLVING:
 - 1. RADIOACTIVE MATERIAL
 - 2. FLAMMABLE MATERIAL
 - 3. POISONOUS MATERIAL
 - 4. EXPLOSIVE MATERIAL
 - 5. OTHERWISE HAZARDOUS MATERIAL

PUPIL TRANSPORTATION SAFETY

SCHOOL BUS OPERATIONS (PUBLIC SCHOOLS ONLY)

SCHOOL YEAR 1979-1980

- A. TOTAL NUMBER OF SCHOOL BUS DRIVERS:
 - 1. ADULT
 - 2. STUDENT
- B. TOTAL NUMBER OF SCHOOL BUSES IN OPERATION
 - 1. PUBLIC-OWNED
 - 2. CONTRACT CARRIER
- C. TOTAL NUMBER OF MILES BEING RUN BY ALL SCHOOL BUSES IN COMMISSION
- D. AVERAGE DAILY ATTENDANCE OF TRANSPORTED PUPILS
- E. AVERAGE NUMBER OF PUPILS/BUS
- F. AVERAGE NUMBER OF MILES/BUS/DAY

CRASH DATA

1979

- G. NO. SCHOOL BUSES INVOLVED IN
 - 1. FATAL CRASHES
 - 2. PERSONAL INJURY CRASHES
 - 3. PROPERTY DAMAGE CRASHES
- H. NO. OF PERSONS KILLED IN SCHOOL BUS CRASHES:
 - 1. PUPILS
 - 2. BUS DRIVERS
- I. NO. OF PERSONS INJURED IN SCHOOL BUS CRASHES:
 - 1. PUPILS
 - 2. BUS DRIVERS

ACCIDENT INVESTIGATION AND REPORTING

ACCIDENT/VIOLATION DATA

ACCIDENTS CAUSED BY

NO. VIOLATIONS ISSUED BY

<u>STATE</u>	<u>LOCAL</u>	<u>TOTAL</u>
<u>POLICE</u>	<u>POLICE</u>	

A. DRIVER VIOLATIONS

1. DRUNK DRIVING
2. SPEED OVER POSTED LIMIT
3. SPEED TOO FAST FOR CONDITIONS
4. DISREGARDED STOP SIGN
5. DISREGARDED TRAFFIC SIGNAL
6. DISREGARDED SLOW SIGN
7. DROVE ON WRONG SIDE OF ROAD
8. FOLLOWED TOO CLOSELY
9. MADE IMPROPER TURN
10. FAILED TO YIELD RIGHT-OF-WAY
11. IMPROPER PASSING OR OVERTAKING
12. HIT AND RUN
13. OTHER
14. TOTAL

B. EQUIPMENT VIOLATIONS

C. PEDESTRIAN VIOLATIONS

1. DRUNK
2. OTHER
3. TOTAL