

**AN ACTION PROGRAM TO MEET VIRGINIA'S  
TRAFFIC SAFETY NEEDS**

**REPORT OF THE  
VIRGINIA TRAFFIC SAFETY STUDY COMMISSION  
to  
THE GOVERNOR  
and  
THE GENERAL ASSEMBLY OF VIRGINIA**

**HOUSE DOCUMENT NO. 13**

COMMONWEALTH OF VIRGINIA  
*Department of Purchases and Supply*  
Richmond  
1967



MEMBERS OF THE COMMISSION

C. HARRISON MANN, JR., *Chairman*  
HUNTER B. ANDREWS, *Vice-Chairman*  
J. DAVID BROTHERS  
LESLIE D. CAMPBELL, JR.  
JULIAN F. CARPER  
S. S. HELLMAN  
ELMER B. HURST  
CULLEN JOHNSON  
OVERTON JONES  
IRVING B. KLINE  
TALFOURD H. SHOMO  
G. G. SINGLETON  
KENNETH W. SMITH  
JOHN R. SNODDY, JR.  
ROBERT W. SPESSARD  
W. CARRINGTON THOMPSON  
J. THERON TIMMONS  
GEORGE M. WARREN, JR.  
RUTH O. WILLIAMS

STAFF

G. M. LAPSLEY  
WILDMAN S. KINCHELOE, JR.  
ROBERT L. MASDEN  
FRANK R. DUNHAM  
MARY R. SPAIN  
DANIEL E. BRAY, JR.



AN ACTION PROGRAM TO MEET VIRGINIA'S  
TRAFFIC SAFETY NEEDS

REPORT OF THE  
VIRGINIA TRAFFIC SAFETY STUDY COMMISSION  
TO  
THE GOVERNOR AND THE GENERAL ASSEMBLY OF VIRGINIA  
Richmond, Virginia, November 27, 1967.

To:

HONORABLE MILLS E. GODWIN, JR., *Governor of Virginia*  
and

THE GENERAL ASSEMBLY OF VIRGINIA

On behalf of the Virginia Traffic Safety Study Commission, I transmit herewith, in accord with Chapter 708\* of the 1966 Acts of Assembly, the findings and recommendations of a comprehensive study of traffic safety needs in Virginia. This report is the result of the most intensive study of this problem ever conducted in the Commonwealth. In addition to the nineteen Commission members, dozens of knowledgeable Virginians participated actively in the study, representing civic, business and professional organizations, as well as local governmental agencies.\*\* Numerous State officials involved in the administration of Virginia's current traffic safety efforts gave full cooperation and assistance to the Commission.

Immediately following its organizational meeting, the Commission divided its work among seven study committees. From four to seven qualified and knowledgeable outside experts and two or three members of the Commission served on each committee. Using the Action Program of the President's Committee for Traffic Safety as a starting point, the work of the Commission was divided among the committees, each being assigned one of the following areas: government and citizen organization, public information and research; uniform laws; driver education; motor vehicle administration; the incompetent driver and emergency medical services; enforcement; and engineering.

Each committee reported to the full Commission its findings and recommendations this past spring. The reports of the committees were made public and their suggested recommendations were fully discussed before the Commission during the course of seven public hearings held throughout the State in May.

Over 60 meetings, including eleven public hearings, have been held by the Commission and its study committees and subcommittees. Literally thousands of man-hours have been spent in the course of developing this report and program for meeting Virginia's traffic safety needs. A summary of specific recommendations offered and of the contents of the report is set forth immediately below and precedes the body of the report.

Respectfully submitted,  
C. HARRISON MANN, JR.  
Chairman

\*See Appendix I for the text of Chapter 708.

\*\*See Appendix II for the list of individuals assisting the Commission in its work.

**SUMMARY OF RECOMMENDATIONS  
AND  
TABLE OF CONTENTS**

	Page
I. Introduction	
A. Preliminary Statement .....	1
B. Duties of the Commission .....	1
C. Fundamentals for the Program .....	2
D. Points for Emphasis .....	3
E. Federal Standards .....	5
F. Action Program .....	6
II. Governmental and Citizen Organization	
A. Overall Goals .....	6
B. Background, State and Local Organization, Needs .....	6
C. Recommendations and Reasoning	
* (1) A Highway Safety Division should be created within the Governor's Office and charged with administering the State's traffic safety program; a Highway Safety Commission should be appointed by the Governor to work with the Division; and a coordinating committee of heads of State agencies concerned with highway safety should function in cooperation with the Division .....	9
* (2) Legislation should be enacted to require each city and county to formulate a local highway safety program and establish a local highway safety commission; and to provide for at least one meeting annually of the chairmen of the local commissions as the State's Advisory Committee on Highway Safety .....	10
* (3) Legislation creating the Highway Safety Division should give that agency specific responsibility to see that State laws relating to highway safety are complied with at the State and local government levels .....	12
* (4) The new Highway Safety Division should also be given specific authority and responsibility for assisting in the organization of functioning local citizens' safety councils .....	12
* (5) To enable the State to secure benefits available under the federal Highway Safety Act, a consent statute should be enacted empowering the Governor to contract and take necessary steps to secure such benefits .....	12
III. Public Information	
A. Overall Goals .....	12
B. Background, Current Programs, Needs .....	13

\* An asterisk preceding a recommendation indicates legislation to implement the recommendation will be found in the Legislative Appendix to be printed separately from the report.

	Page
C. Recommendations and Reasoning	
(1) The present staff of two fieldmen for the Governor's Highway Safety Committee should be expanded to six men .....	15
(2) The Director of Public Information should utilize, to the extent feasible, professional talent from advertising agencies and like groups in the production of safety programs and materials .....	15
(3) Public information programs should place primary emphasis on continuing education of drivers and pedestrians .....	15
(4) Public information materials should be evaluated periodically by outside experts .....	15
IV. Research	
A. Overall Goals .....	16
B. Background, Current Research Activities, Needs .....	16
C. Recommendations and Reasoning	
*(1) A professionally staffed research, evaluation and traffic accident prevention center should be established to assist State agencies and localities with highway safety programs and to carry out and coordinate research activity .....	19
*(2) The proposed center should prepare and maintain a detailed list of needed research projects and available studies .....	19
*(3) The proposed center should develop a highway research library .....	20
*(4) The proposed center should report its own research findings and recommendations systematically .....	20
(5) Separate research divisions should be formed within those State agencies having particular responsibilities in the field of highway safety .....	20
V. Uniform Laws	
A. Overall Goals .....	21
B. Background .....	21
C. Recommendations and Reasoning	
*(1) Provisions governing the use of flashing warning lights and sirens by emergency and special vehicles should be simplified and made more uniform by limiting the use of red flashing lights to actual emergency vehicles and school buses and by utilizing yellow lights for maintenance vehicles and blue lights for identification purposes .....	22
*(2) Virginia should adopt the Uniform Vehicle Code concept which provides that motorists on separate roadways need not halt for stopped school buses.....	23
*(3) All possible encouragement should be given to the promotion of uniform traffic signs and signals throughout the Commonwealth .....	23
*(4) The provisions relating to stopping before entering a highway should make it clear that the motorist must both stop and wait until it is safe to proceed....	23

	Page
* (5) Provision should be made to permit the Highway Department to post differential speed limits for daytime and nighttime driving following an engineering and traffic study .....	24
* (6) The differential in speed limits for trucks and automobiles should be revised to decrease the differential on divided four-lane roads .....	24
* (7) The use of new warning devices which permit a motorist to flash all four turn signals simultaneously should be stimulated through legislation to require their use in hazardous situations .....	25
* (8) Slow-moving equipment should be required to yield the right of way to traffic following it by pulling off the road whenever the condition of the shoulder permits .....	25
 VI. Driver Education	
A. Overall Goals .....	25
B. Background, Classification, Effectiveness, Present Program, Needs .....	26
C. Recommendations and Reasoning	
(1) The State Department of Education should continue to advance Virginia's driver education program and to this end should support the State's highway safety program and compliance with the federal highway safety standards .....	29
* (2) Driver education should be provided on a basis similar to other courses and free of cost to the student....	30
* (3) Driver license applicants under age eighteen should be required to have passed an approved driver education course as a prerequisite to licensing .....	30
* (4) Adult driver education and improvement courses should be provided under local board of education supervision and through adult education programs; and the courts should be authorized to send violators for retraining when appropriate courses are available .....	31
* (5) Commercial driver education schools and courses should be regulated as to their business practices and certified as offering approved courses for licensing purposes .....	32
* (6) The same special requirements for hiring public school bus operators should be extended to the employment of persons to transport pupils for private schools .....	32
* (7) School bus markings should be made mandatory and uniform to the extent possible .....	33
(8) In view of the serious need for trained traffic engineers within the State, we urge the State Council of Higher Education and our institutions of higher education to afford Virginia students traffic engineering courses as a regular and prominent part of the engineering curriculum .....	33



	Page
VII. Motor Vehicle Administration	
A. Overall Goals .....	33
B. Background .....	34
C. Recommendations and Reasoning	
(1) Initial Issuance of Drivers' Licenses	
*(1a) Drivers' licenses for persons up to age 21 should be issued on a provisional basis subject to suspension in the discretion of the court on conviction or a finding of not innocent for a traffic violation reportable to the Division of Motor Vehicles .....	34
*(1b) The State laws classifying operators' licenses according to the vehicles they intend to operate should be further refined to treat motorcycles as a separate class for licensing and examining purposes; additional provisions should be enacted to ensure maximum safety in the operation of motorcycles such as requiring the use of helmets and safety glasses .....	36
(2) Licensed Driver Control	
*(2a) At periodic intervals, all drivers should be reexamined to test their knowledge of changing laws, road conditions and rules of the road and to determine whether they continue to meet the visual standards for licensed drivers; and to finance this and other proposed programs, the fees for duplicate, original and renewed operators' and chauffeurs' licenses should be revised .....	37
*(2b) All persons applying for license renewal should be required to appear personally to further the likelihood of detecting visible disabilities, and penalties to deter the renewing of a license for another should be strengthened .....	41
*(2c) Existing hearing provisions which constitute a mechanism for dealing with habitual violators should be strengthened and put to more effective use through employment of additional personnel .....	42
(3) Administrative Steps	
*(3a) Current pasteboard drivers' licenses should be replaced with plastic cards designed to complement the computers being installed at the Division of Motor Vehicles; a color photograph of the licensee should appear on his operator's or chauffeur's license; and the Social Security number should be utilized as an identification number for individual licensing purposes in looking towards nationwide records and research systems .....	43
*(3b) Imprinters should be issued to enforcement officers so that the information on plastic licenses can be transferred with complete ac-	

	Page
curacy to a multiform ticket, one copy of which can be sent to the Division by the courts with conviction information .....	45
* (3c) Virginia should adopt the Driver License Compact .....	46
* (3d) The Division should be notified routinely by welfare and tax officials of all persons receiving welfare or exemptions for the blind or nearly blind to ensure they are not licensed drivers .....	46
(3e) Training programs for Division employees who examine license applicants should be strengthened and improved, and salaries for Division employees should be reviewed and upgraded .....	46
(4) License Plates	
* (4a) License plates should be coated with reflectorizing material which has been proved to be a factor in reducing nighttime accidents and which aids enforcement officials in identifying license numbers .....	48
* (4b) Semipermanent, rather than annual, license plates should be issued in Virginia to reduce expenses and to defray the cost of reflectorizing license plates .....	51
* (4c) Annual motor vehicle registration fees should be raised \$1 to aid in financing the State's highway safety program .....	52
* (4d) License plate numbers should be limited to no more than six digits to assist enforcement officials .....	52
VIII. Medical and Health Aspects of Licensing	
A. Overall Goals .....	53
B. Background, Current Programs, Needs .....	53
C. Recommendations and Reasoning	
* (1) The post-mortem reports already being made by medical examiners on all traffic fatalities should be expanded to cover the presence of any medical or physical condition which may potentially have contributed to the accident and this aspect of the reports should be made available for further research and analysis .....	56
* (2) A Medical Advisory Board should be appointed by the Governor to assist and advise the Commissioner of the Division of Motor Vehicles in reviewing medical aspects of license applications and in developing standards for broad application in licensing .....	57
* (3) We recommend the adoption of those portions of the 1965 Visual Standards Report which will raise Virginia's visual acuity requirements for obtaining a license to the recognized minimum standards necessary to assure safe driving .....	57

	Page
* (4) We recommend the Division of Motor Vehicles be given specific authority to require a physical examination where there is cause to believe the applicant or licensee may be physically incompetent to drive	58
IX. Emergency Services and Transportation of the Injured	
A. Overall Goals .....	58
B. Background .....	58
C. Recommendations and Reasoning	
* (1) Authority to regulate the equipment carried on ambulances and to certify the qualifications of attendant personnel should be vested in the State Health Department and in an Advisory Committee on Emergency Medical Services; and the operation of ambulances within the State should be dependent on the holding of a permit to do so and the presence of a certified ambulance attendant .....	60
* (2) The State should appropriate funds to the Department of Health to support ambulance and rescue squad personnel training programs and schools.....	61
* (3) The State should adopt a policy of fostering adequate local ambulance services and authorize localities to regulate emergency services and grant franchises to this end .....	61
* (4) The current "good samaritan" statute should be expanded to include certified emergency medical care personnel, as well as doctors and dentists, rendering assistance at the scene of an accident.....	62
* (5) A resolution should be adopted by the General Assembly requesting the State Department of Highways and the State Police to study the problems of providing an adequate communications system for Virginia's limited access highways .....	62
X. The Drinking Driver	
A. Overall Goals .....	62
B. Background and Facts .....	62
C. Recommendations and Reasoning	
(1) The changes which we propose to increase the effectiveness of our procedures to control driving while intoxicated should be carried out within the framework of our existing statutes rather than by the adoption of an entirely new statute .....	65
* (2) The breath test should not be introduced into our State's procedures under the implied consent law at this time, but the localities should be given authority to introduce the breath test through local ordinances .....	65
* (3) Certain steps should be taken to obviate the valid objections of doctors and hospitals to existing blood sampling procedures by: (a) raising the fee from \$5 to \$15, (b) providing for immediate payment thereof, (c) requiring circuit court designation	

	Page
of personnel to administer the sampling, and (d) increasing protection against litigation through substitution of the State as defendant in negligence suits with recovery over by the State against the party taking the blood sample in cases of gross negligence only .....	66
* (4) The required levels of alcohol content revealed in blood tests which give rise to certain presumptions at law should be lowered so that 0.05% to 0.10% by weight alcohol content will be presumptive evidence of impaired driving and 0.10% or greater alcohol content will be presumptive evidence of driving while intoxicated .....	67
* (5) The arresting officer should be permitted to give evidence on his opinion of the defendant's condition at the time of arrest .....	67
* (6) Authority to sign the blood sample certificate should be given to the administrative assistants of the Chief Medical Examiner or Assistant Chief Medical Examiners .....	68
* (7) The taking of the blood sample should be made prima facie evidence of compliance with the pro- cedures for taking it outlined in the statute .....	68
* (8) The implied consent statute should be amended to authorize the State Health Commissioner to limit the number of approved laboratories testing the second blood sample for the accused and to permit the accused to send his sample to the Chief Medi- cal Examiner for testing free of charge .....	68
* (9) The statute should be amended to permit the use of sealed kits approved by the State Health Com- missioner which the police could provide the person taking the blood sample .....	69
* (10) Hospitals should be required to take a blood sample of any driver admitted following a traffic accident if law enforcement personnel so request .....	69
* (11) Annual reports should be made by the Traffic Acci- dent Prevention and Research Center on action taken under the driving while intoxicated or im- paired and implied consent statutes .....	69
* (12) Penalties for refusal to consent to a blood test should be increased to six months' suspension of driving privileges for a first offense and one year's suspension for a second offense within a year.....	70
<b>XI. Enforcement</b>	
A. Overall Goals .....	70
B. Background, Present Conditions, Needs .....	70
C. Recommendations and Reasoning	
(1) Police	
* (1a) Budget authorization should be given to em- ploy an additional 100 State troopers during	

	Page
the coming biennium, and upon approval of the Governor to employ another additional 100 troopers .....	73
* (1b) Regular, periodic pay increases based on length of service should be instituted for the State Police .....	74
* (1c) The Compensation Board should authorize State reimbursement to localities for mileage accumulated by sheriffs' departments in traffic patrol work under certain conditions .....	74
(1d) Police should conduct increased spot checks of vehicles and operators' licenses .....	75
* (1e) Legislation should be enacted to lessen time spent by State and local police in court testifying to the accuracy of radar equipment in speeding cases .....	75
* (1f) A uniform traffic ticket should be used throughout the Commonwealth .....	75
* (1g) Arresting officers should be required to request an abstract of the conviction record of every person charged with a reportable violation and should be able to get such information on a round-the-clock basis from the Division ....	76
 (2) Courts	
* (2a) Up-to-date information on changes in the motor vehicle laws, pertinent case law and procedures should be covered in a one-day extra session of the Judicial Conference of Virginia for courts not of record to be organized and supervised by the Executive Secretary of the Supreme Court of Appeals .....	76
* (2b) Every court having jurisdiction over motor vehicle law offenses should have discretion, in any case where the defendant is found guilty of a moving traffic violation, to suspend the defendant's license for a period of up to ten days .....	77
* (2c) Prosecuting attorneys should be required to appear in all contested cases involving reportable violations .....	77
* (2d) Defendants should be required to appear in court in cases involving the most serious types of offenses .....	77
* (2e) With respect to traffic violator schools, courts should be given authority to transfer non-resident defendants to a school near his residence if such exists .....	77
* (2f) Judges of the courts not of record should be permitted, as are judges of the courts of record, to amend warrants in their discretion .....	78

	Page
(2g) We urge passage of legislation to convert the justice of the peace system to an appointive rather than elective basis .....	78
* (2h) A special study should be initiated by the General Assembly to review our lower court system with special emphasis on the desirability and feasibility of a system of full-time judges and prosecutors .....	78
(3) Penalties and Laws	
* (3a) A special habitual violator law should be enacted to deal with offenders who accumulate records evidencing criminal disregard for motor vehicle laws and to permit permanent revocation of their operators' or chauffeurs' licenses .....	79
* (3b) Legislation should be enacted to differentiate homicide by vehicle from manslaughter .....	80
* (3c) The statute covering the offense of "racing" should be broadened to include specifically those arranging for the race .....	80
* (3d) The hit and run statute should be amended to provide a specific suspension penalty on the first offense .....	80
* (3e) The reckless driving statute should be amended to specifically cover highways under construction .....	81
* (3f) It should be made a misdemeanor to leave keys in a stopped, unattended vehicle .....	81
* (3g) The travel of any two vehicles abreast in one lane of traffic should be prohibited .....	81
* (3h) The penalties for driving on a revoked permit should be made more stringent .....	82
* (3i) The penalties for the second offense of driving without a license should be made more stringent .....	82
* (3j) The existing provisions providing for the confiscation of vehicles driven by persons whose licenses are revoked or suspended should be amended to extend the period for confiscation and to permit expeditious return to lienholders and innocent owners by a simpler procedure .....	82
* (3k) In all instances where the Commissioner of the Division of Motor Vehicles is required under Title 46.1 to revoke or suspend an operator's or chauffeur's license, notice of his action should be deemed sufficient if sent by certified mail to the last known address of the licensee on file at the Division .....	83

	Page
XII. Pedestrian Safety	
A. Overall Goal .....	83
B. Background, Current Programs, Needs .....	83
C. Recommendations and Reasoning	
* (1) The General Assembly should express, through resolution, a legislative policy that each school system should provide adequate instruction from grades one through twelve for pedestrian and bicycle safety .....	85
* (2) Legislation is needed to permit all cities, towns and counties to enact and enforce pedestrian ordinances .....	85
* (3) Existing legislation governing the obligation of drivers to stop when a painted crosswalk is occupied by a pedestrian should be strengthened and should include mid-block cross-walks .....	85
* (4) Legislation should be enacted to make it a misdemeanor for any hitchhiker to stand on any "roadway" when soliciting rides .....	85
XIII. Engineering	
A. Overall Goals and Background .....	86
B. Recommendations and Reasoning	
(1) The Commission submits certain proposals to the State Department of Highways as recommendations for administrative action .....	86
* (2) While the Commission fully endorses Virginia's current motor vehicle inspection program, certain refinements are offered here which should improve our basically sound inspection procedures .....	88
* (3) We recommend that the sale of and winter use of studded tires be made legal for a two-year trial period .....	89
* (4) The provisions of the motor vehicle laws relevant to speed limits in business and residential districts should be clarified to facilitate the application and enforcement of speed limits in these areas .....	90
* (5) The requirement for posting signs that radar may be in use as a prerequisite for conviction should be revised .....	91
(6) Virginia should sponsor the participation of all our political subdivisions having jurisdiction over their highways in an annual traffic safety inventory program .....	92
* (7) The existing provisions governing the issuance of permits to gain access to State highways should be expanded to cover industrial and subdivision development and to provide a general setback requirement .....	93
* (8) In order to assure development of State-maintained secondary roads in a sound manner consistent with	

	Page
highway safety, the State Department of Highways should be given statutory authority with respect to the development of subdivisions in those counties not having effective subdivision control ordinances	93
XIV. Conclusion .....	94
Appendix I—Chapter 708 of 1966 Acts of Assembly .....	96
Appendix II—List of members of Commission and study committees .....	97
Appendix III—Standards issued under federal Highway Safety Act of 1966 .....	101



## I. INTRODUCTION

### A. Preliminary Statement

The hazards of highway travel are too well known to require lengthy documentation. Highway crashes, injuries, fatalities and attendant economic loss are of epidemic proportions. Lack of highway safety has been spoken of as the greatest social problem of our time.

The Superintendent of State Police, in announcing the 1966 traffic death toll of 1,106, pointed out that it was the sixth consecutive year of increase. Total crashes in 1966 increased 4.6% to 116,275. Injuries increased 6.6% to 41,849. Estimated property damage and overall economic loss increased from \$36 to \$37 million and from \$191 to \$200 million, respectively. Figures to date for 1967 indicate that more persons will be killed and injured in traffic accidents in Virginia this year than ever before in the Commonwealth.

In his report, the Superintendent observed that a rise in traffic volume aided in bringing a decrease in the death rate per 100 million miles of travel from 5.2 in 1965 to 5.1 in 1966. But when the miles of travel and number of vehicles continue to increase, as they have substantially for each of the past six years, holding our own in terms of ratios amounts only to a steadily increasing bleeding away of the Commonwealth's human and economic resources in what has been called a runaway traffic disaster.

With present trends, it is frightening to anticipate what will happen in the years ahead with the projected tremendous increase in population and motor vehicles. Two predictions can be made, however, with almost pinpoint accuracy. This year one out of every 100 Virginians will be killed or injured on the highways. One out of twelve drivers will be involved in an automobile accident. Yet the driving public takes the attitude "it can't happen to me."

Virginia faces a simple "either-or" alternative. Either our accident prevention efforts will be intensified or Virginians will die and suffer injury in greater numbers.

### B. Duties of the Commission

*The Commission had three primary duties under the legislation which created it to develop a blueprint for a sound safety program.*

*First:* It had to determine where Virginia now stands with respect to traffic safety. There is no better criterion for measuring our performance than the "Action Program" of the President's Committee for Traffic Safety.

In comparison with other states, Virginia's laws and programs stand well above the average and are exemplary in many fields. The National Safety Council has awarded Virginia many citations for its safety practices, all of which is little consolation when the death toll and accident rate still mount and when the rate of deaths for each 100 million miles traveled is only slightly less in Virginia than the average rate throughout the country. Many states have a consistently better performance record. Obviously, something is wrong. The reasons will become apparent in this report.

*Second:* The Commission was directed to provide, so far as it was possible, a factual basis for recommended improvement of all State and local safety programs and services.

The very foundation of any workable and acceptable program must be based on facts and not upon preconceived ideas. The Commission soon found that there were many limitations on its ability to get all the facts. However, throughout its deliberations it tried its best to answer these questions:

Is the recommended legislation or program necessary for the protection of lives or property?

Are they administratively enforceable? In other words, will they work?

Are they understandable to the public in order to obtain voluntary compliance from the vast majority of our citizens?

Will their cost be in reasonable proportion to the result to be accomplished?

The Commission has attempted to provide a factual basis for a planned improvement of traffic safety to serve the people of Virginia. Full consideration has been given to all the views and recommendations of State agency heads and those especially knowledgeable in the field of highway safety.

*Third:* The Commission was charged with the duty to develop highway safety goals and a comprehensive program along with detailed recommendations for the guidance of the General Assembly and those administrative officials most concerned with this problem. In so doing, the Commission considered the federal standards for State and local highway safety programs issued to date by the U. S. Department of Transportation under the federal Highway Safety Act of 1966 and these standards will be referred to in the course of this report as appropriate.

### C. Fundamentals for the Program

*The Commission has attempted to develop a comprehensive, balanced program dealing with highway safety on every front.*

The major blame for traffic accidents is variously placed on the driver, or on the vehicle, or on the highway. The truth is that most accidents involve a variety of causes, and in dealing with the overall traffic accident picture it would be serious error to give exclusive emphasis to any one element.

A sound highway safety program, that will yield a lasting reduction in traffic accidents, rests upon the following fundamentals:

Sound, uniform laws and ordinances.

Good accident records, fully utilized.

High-standard safety education, including driver education and re-education.

Modern engineering in the design of highways and vehicles, and in controlling traffic flow.

Sound programs of driver licensing, driver improvement, and vehicle inspection.

Effective traffic supervision by the police.

Well-administered traffic courts.

Continuing programs of public education and information.

Unceasing research and evaluation.

Stepped-up attention to drivers' health as an accident factor; and to emergency care of the injured.

State services to cities and counties to provide local authorities with needed assistance to increase the effectiveness of local action.

And; organized citizen support of officials with traffic responsibilities.

The Commission does not claim to have covered every single program and recommendation needed for traffic safety. It needs to be repeated over and over that traffic safety is a never-ending effort and development. Furthermore, we cannot expect to see immediate tangible results from the program in decreased accidents. It will take some years before the benefits of the entire program will be evident. The combination of local, State and federal programs which this report sets forth does, however, we believe, offer Virginia a well-laid foundation for substantial progress.

#### D. Points for Emphasis

*In engaging in a task as monumental as this study has proven to be, certain major points stand out and merit initial emphasis.*

*First: Traffic safety is a never-ending endeavor. The Commission had many problems presented to it which it had neither the time nor the facilities to answer with a sound solution. Furthermore, highway safety is a growing field as techniques and knowledge increase. For example, what was considered a safe highway five years ago is today subject to criticism by the very engineers who built the road. This study is just the beginning. It cannot stop here. It must be picked up where this Commission and the Legislature leave off by some permanent agency and carried forward, month in and month out, for the indefinite future.*

It has been observed that Virginia has lots of good laws on the statute books, which if enforced would solve at least a portion of the problem. But placing laws on the statute books will accomplish little without proper implementation. Many of the very problems that were discussed and dealt with in the 1951 and 1963 Highway Safety Reports of the Virginia Advisory Legislative Council still exist in almost the same degree that they did then. This is due, in large part, to a lack of follow-up. One of the great weaknesses of studies is that after untold hours of work they are relegated to the bookshelf, soon to be forgotten. This study Commission has specifically recommended a continuing, permanent governmental organization whose duty it will be to see that this does not happen this time; to see that the safety program is adequately implemented.

*Second:* The Commission could not solve numerous problems because of lack of information. In far too many instances it had to rely upon "commonsense" solutions, based on the best opinions of State or national experts.

We could not wait until all the answers were "in" on all the causes of accidents.

*There is no doubt in the Commission's mind that future progress in the highway safety field is highly dependent on the establishment of an Accident Prevention and Research Center to operate in conjunction with our State institutions of higher learning. Such a center can collect and evaluate the facts and the experiences of others and of our own State for better solutions and guidance to our State officials.*

*Third: The greatest single organizational need is to recognize that traffic safety is a full-time responsibility and will require full-time employees devoting their sole attention to the subject. Under the present administrative machinery highway safety is the secondary responsibility of department heads who have a primary responsibility in their various*

fields. Governments, national, state, and local, have moved into a new era of traffic safety. Under the federal program the Governor must approve all local programs and be directly responsible for the State's program. The necessity for the State to comply, on one hand, with federal standards and account for federal funds and on the other, to approve and supervise the safety programs of all the localities, will be a full-time task. Safety can no longer take a back seat.

*Fourth:* The weakest link in the enforcement chain lies in the courts. Some are outstanding, but most are not equipped either with trained personnel or facilities to do an adequate job. *We get what we pay for, and Virginia is suffering from long-time neglect of its lower court system.* A report on "Administration and Enforcement of Selected Traffic Laws in Virginia" by personnel of the Virginia Highway Research Council, made at the request of the Commission, reveals numerous glaring deficiencies in our traffic courts. The task of recommending the proper remedies for these deficiencies was too great and beyond the scope of this Commission. We have, therefore, included a resolution calling for a study of the entire lower court structure of Virginia.

*Fifth:* Though Virginia already has some model laws for dealing with the habitual offender along with authority for getting him off the road, these laws break down in administrative implementation. The task of operating the Division of Motor Vehicles is so immense that emphasis must be given to providing top-flight personnel for that agency. A management study by competent outside experts would, in the opinion of the Commission, be highly useful in helping the Division cope with its enormous and ever widening responsibilities. *While the General Assembly has provided for the furnishing of the traffic records of defendants, the Commission has been concerned over how little use is made of these records, and the problems which affect their reliability.* We have made other recommendations to assist in correcting this condition.

*Sixth:* The Commission has kept in mind at every stage of its work that highway safety involves three elements—the driver, the vehicle, and the highway. The vast majority of our decisions have dealt with the driver. In view of the special federal legislation and standards regulating safety features of motor vehicles which preempt State and local regulation in this area and the practical necessity for national standards to cover the manufacture of vehicles, we have not offered specific recommendations on this point.

We do have, however, a real responsibility for our highways. It is only natural that highway engineers measure progress by the number of miles of pavement laid down, while those concerned primarily with safety think in terms of lives saved and accidents prevented. The Commission readily acknowledged throughout its deliberations that you can not build a highway to make it safe for every type of driver, and that there must be an accommodation between cost and maximum safety. For years, however, the Annual Report of the Superintendent of State Police has pointed out the growing number of accident-prone locations on our highways, the latest citing 1,700 locations not including such locations within incorporated areas.

*In the judgment of the Commission, Virginia must reach some reasonable accommodation between the goals of laying down more pavement and correcting accident-prone areas.* Clearly this is something that is difficult if not impossible for the Assembly to legislate. This must be the joint responsibility of the Governor and the Highway Commission. During 1966, the Highway Department submitted a list of some 525 specific prob-

lems for analysis and correction under the federal spot improvement program involving \$12 million in expenditures over a four-year period. This type of program is to be commended, and the Department should utilize State funds and matching federal funds to the fullest extent for correcting such hazardous locations.

To demonstrate support for this kind of program, we recommend that the General Assembly recognize, through a Resolution and as State policy, the necessity that prompt and adequate consideration be given to correction of accident-prone areas.

*Seventh:* As the study progressed it became evident that while the public is interested in traffic safety as a theory, death and injury on the highways has become a way of life and poses such an immense challenge that the average citizen feels helpless to do anything about it. This is a dangerous condition which requires government to take leadership and do what is necessary for the greatest good of the greatest number, though it may cause inconvenience to some. What happens on the highways does not affect just the individual involved. It affects the whole economy—insurance rates, hospital costs, welfare, and the economic condition of thousands of families.

Something can be done about the universal acceptance of the inevitability of accidents. Education and enforcement are the keys. *While habitual offenders cause violations and accidents far out of proportion to their numbers, careful analysis shows that the vast majority of accidents happen to average "good" drivers.* Many drivers do not have a fundamental knowledge of good driving habits and are not aware of the principles of defensive driving. Only education, corrective instruction, and an intensive campaign of public information can rectify this. The State has the responsibility to assume leadership in these matters.

#### E. Federal Standards

*The federal Highway Safety Act of 1966* provides for the issuance of highway safety standards by the Department of Transportation, the potential loss of 10% of federal highway funds by those states not meeting such standards and matching federal funds for state programs directed to the solution of highway safety problems. Many people will understandably resent these federal standards which the states, to avoid the possibility of losing 10% of federal highway funds, must meet.

Let it be said that Virginia is already in compliance with or exceeds most of the federal requirements issued to date,\* and the Commission would have recommended action in the remaining fields in any event as being sound and necessary. Standards which have been issued will be referred to in the body of the report where they are relevant. Many provisions of the federal standards can be carried out by administrative action and we so recommend. We have deliberately avoided requiring administrative action by statute wherever possible.

More important, Virginians have a real stake in the federal safety standards. Over 12% of the drivers involved in traffic accidents in Virginia last year were licensed in another state. Over 12% of the vehicles involved in crashes in Virginia in 1966 were of foreign registration. A Virginian is just as dead or injured when hit by an out-of-state licensed car as he is by a Virginia car. Half-blind drivers, in uninspected vehicles from states which have no method to keep the accident-prone off the highways are a menace on Virginia's highways which only federal standards can reach.

\* See Appendix III for the text of the federal standards.

## F. Action Program

Finally, this report presents recommendations and guidelines for *what needs to be done* to provide an effective accident prevention program for coping with the rising toll of deaths, injuries and economic loss on the highways. The General Assembly, by forthright action in these areas, can establish a basic system on which a sound safety program can be built.

The Action Program of the President's Committee served as a starting point for the seven study committees which submitted a total of twelve separate reports for Commission consideration. The Commission carefully reviewed and reworked each of these reports. The body of this report contains twelve major subdivisions based on these reports. Legislative proposals will be carried in a separate Legislative Appendix to be bound separately from this report. We have indicated with an asterisk (\*) each of our recommendations which will be accompanied by a specific legislative proposal to be printed in the Legislative Appendix.

## II. GOVERNMENTAL AND CITIZEN ORGANIZATION

### A. Overall Goals

To develop an effective program capable of dealing with the many causes contributing to traffic accidents, we need:

(a) *Effective governmental agencies on the State and local levels*, under direct executive leadership, whose primary responsibility shall be the development, execution and coordination of a comprehensive traffic safety program, along with a continuing legislative-administrative review and reassessment of safety laws and programs.

(b) *Effective participation of citizens and citizens' groups* in every community of the State, and on a State level, to achieve citizen support and leadership for a balanced program of traffic accident prevention.

### B. Background

#### (1) State Organization

Beginning in 1946 the State embarked on a State-wide effort to coordinate the safety activities among State governmental agencies in order to develop a concentrated and sustained effort to stop the alarming trend in highway deaths and accidents. Executive decree established *the Governor's Highway Safety Committee*, which had as its objective "to coordinate safety activities among State governmental agencies, to fully inform the public on all phases of traffic safety, to cooperate with local and national officials, to periodically review the situation and to recommend such improvements as deemed practical and necessary, and to enlist the aid of citizen groups and organizations."\*

Shortly thereafter, in 1948-49, a general study was made with the view to streamlining the State governmental structure. It was decided that the Governor's Highway Safety Committee staff was too small to remain an entity and that it should be placed under the State Police for administration purposes. On page 28 of House Document 19, the 1948 Report on the Organization of the State Government of Virginia, it was stated: "Integration of the functions of the Governor's Highway Safety Committee into

\* "The Governor's Highway Safety Committee" by Hiram M. Smith, Jr., Director, Public Information.

the proposed Department of State Police would provide for a merger of similar functions, and would eliminate existing duplications. Both agencies are concerned with the same problem.”

Since 1949 the responsibility for *administering* the work of the Governor’s Highway Safety Committee has been that of the Department of State Police. The Committee itself is composed of the Superintendent of State Police, Attorney General, State Highway Commissioner, Commissioner of Labor and Industry, Commissioner of Agriculture, a member of the State Corporation Commission, the Superintendent of Public Instruction, Commissioner of Motor Vehicles and State Health Commissioner.

“The Committee as a whole meets four times a year. However, the Executive Committee might meet more often and the Chairman confers with the Committee member whose department might be more directly involved in a certain project than the others. In this connection, it should be noted that each Committee member does not look to the Committee for the administration of his own department. It is only in concentrating effort on an overall issue that the Committee takes collective action.

“There has also been formed the Work Committee which consists of a member of the department of each Committee representative, appointed by him, to represent him when his presence is impossible or impractical and to assist him in the work of the Committee.”\*

The Citizens Advisory Committee was formed in 1955, and is composed of 55 citizens, appointed by the Governor, representing industry, civic organizations, etc. This Advisory Committee meets several times a year, primarily for the purpose of discussion of State safety programs. Its membership have no definable terms, and there are no specific provisions made for its government. With the exception of the addition of the Citizens Advisory Committee in 1955, the structure for administering the State’s safety program has not been overhauled since 1948.

## (2) Local Organization

In the private sector, the Virginia Safety Association, supported largely by business and industrial organizations, meets annually. It has an active highway safety section and the annual meetings are well attended. It operates on a budget of less than \$14,000 and because of meager resources it is limited in its organizational work and in the servicing of *local safety councils*.

When the Governor’s Highway Safety Committee was formed, the staff determined to organize a safety council for each county and city in the State.

“Apart from inherent public lethargy as to traffic safety, we ran into lack of local appropriations for administering councils, long distances which members would have to travel for meetings and activities, and the fact that our staff was too small to aid them in maintaining continuous interest and promoting programs the year around.

“Many councils were formed and some fell by the wayside, until finally we realized that the optimum was to work with those who were doing something and leave off attempting to prod those who were comatose.”\*

With only two staff fieldmen to assist in this program it is understandable why the Governor’s Highway Safety Committee gave up this original objective.

\* *Ibid.*

According to the figures supplied to the Commission by the Virginia Safety Association there are today only 21 active safety councils in the Commonwealth; four towns, nine cities and eight counties. Seventeen councils previously organized have become inactive.

No counties, towns or cities, as far as it can be discovered, have any official organization for the formulation or implementation of a traffic safety program. Department heads of local governments operate within their respective fields without plan, coordination, or positive programs of assistance, except as they may individually request it from State agencies.

### (3) Needs

*With regard to State organization, the question has been raised, both within the Commission and at various levels of government, whether the present State machinery for formulating and administering the State safety program and organizing citizen support is any longer the best possible method for meeting the increasingly serious problems of highway safety.*

While the National Safety Council has been generally complimentary as to Virginia's organization and citizen support program it has found fault with the fact that the Governor does not actually preside over the Highway Safety Committee meetings, even though the Committee is directly responsible to him. Though Virginians do not generally consider this criticism valid, the criticism is in line with the National Safety Council's own criteria which they had established in order to encourage the chief executives of the various states to take a direct hand and personal leadership in State safety programs. In addition the Council's approach foreshadowed the 1966 federal legislation.

The federal Highway Safety Act requires that a State Highway Safety program must:

“(A) provide that the Governor of the State shall be responsible for the administration of the program.

“(B) authorize political subdivisions of such State to carry out local highway safety programs within their jurisdictions as a part of the State highway safety program if such local highway safety programs are approved by the Governor and are in accordance with the uniform standards of the Secretary promulgated under this section.

“(C) provide that at least 40 per centum of all federal funds apportioned under this section to such State for any fiscal year will be expended by the political subdivisions of such State in carrying out local highway safety programs authorized in accordance with subparagraph (B) of this paragraph.”

In a statement of the National Highway Safety Agency dated December 5, 1966, it was said that the “Governor may, however, administer his State's highway safety program through an appropriate instrumentality of the State.” Virginia's present form of governmental organization undoubtedly meets this requirement.

But while our present organization may on its face meet federal requirements, the question remains whether the existing approach to organizing our resources for a traffic safety program is the most effective one.

With over 1,000 deaths each year on Virginia highways, with 40,000 annual injuries and with millions of dollars in economic loss, this problem



is of such general importance and magnitude that we believe it must have the undivided attention of a separate division of State government charged directly with responsibility for implementing, coordinating and carrying out a State traffic safety program.

We have also concluded that the highly informal nature of the organization of the Citizens Advisory Committee is not as conducive to providing adequate citizen support for State programs as it should be and that its format does not encourage the development of recommendations which are based on facts and which might direct the organization's efforts toward practical solutions of safety problems.

*With respect to local organization and grass roots citizen support, it seems obvious that our present efforts need strengthening to reach local government and citizens. We believe that State and local public officials must carry the responsibility to initiate a strong State-wide effort.*

It is clear from the federal Act that it contemplates each locality having a local highway safety program. Both the requirements of the Act and the formula for distribution of 40% of matching funds to the localities make this point plain. The Governor and the State-level organization must approve and stimulate local action. Both State and local organizations must be effective.

The recommendations which follow are designed to provide the means to revamp our State-level organization so that it can implement a State plan for traffic safety and stimulate and encourage the establishment of local governmental and citizen organizations that can carry out city and county programs.

### C. Recommendations and Reasoning

\*(1) A Highway Safety Division should be created within the Governor's Office and charged with administering the State's traffic safety program; a Highway Safety Commission should be appointed by the Governor to work with the Division; and a coordinating committee of heads of State agencies concerned with highway safety should function in cooperation with the Division.

In brief, we propose legislation to create a new Highway Safety Division which would, as the existing Division of Personnel, operate within the Governor's Office and under supervision of the Commissioner of Administration. The Highway Safety Division would be charged with the administration of the State's traffic safety program on behalf of the Governor, including such matters as approval of local safety programs. All actions of the Division would be subject to review and approval by the Governor. The staff of the present Governor's Highway Safety Committee should and can readily be transferred to the Division.

A twelve-man Highway Safety Commission should be appointed by the Governor to serve as an advisory and review body for the Division. Citizens with special qualifications in this field should be appointed to serve no more than two four-year terms on a staggered basis to provide continuity. The Commission would assist the Division in the formulation of the State's traffic safety program, in review of the program, in suggesting recommendations for improvements through administrative action and legislation, and in supporting local safety programs and citizens' activities.

A Coordinating Committee, composed of the heads of State agencies

\* An asterisk preceding any summary statement of a recommendation indicates legislation to implement the recommendation will be found in the Legislative Appendix.

having responsibilities in the field of highway safety and comparable to the current Governor's Highway Safety Committee, should also be organized as an adjunct to the Division. The head of the new Highway Safety Division, the Commissioner, would serve as chairman of the Coordinating Committee.

The Commission believes that the time has long since passed when traffic safety should be considered a secondary responsibility of State government. Under the present administrative machinery highway safety is the *secondary responsibility* of department heads who have a primary responsibility in their various fields. As a result, safety receives less emphasis than it would if it were the *primary responsibility* of a separate State agency. It is recognized that the operational functions for highway safety must of necessity rest in many departments and that in many cases decisions affecting highway safety are affected by factors other than safety. There must be, however, some agency charged with the responsibility of seeing that the safety factor receives adequate consideration, and in cases of disagreement such disagreement must be resolved by the Chief Executive or by the legislative branch.

Under the present plan of a committee made up of co-equal department heads, the natural inclination of its members is to adopt a "live and let live" philosophy and not interfere with the functions of another department. Each department head understandably feels that his department is doing the very best possible job in the interest of safety, and if there were better methods he would be using them. The maintenance of the status quo therefore becomes the norm. As a result, few legislative recommendations have come from the Governor's Committee for improvement of highway safety, and in some instances where there have been private disagreements over the policies of a particular department, these have never been resolved by the Committee as a whole.

The Commission believes that the centering of responsibility for traffic safety in one place, fortified by the prestige of the Governor's Office, will sharpen governmental and public attention on the problem and thereby bring about decisive action and a decided improvement in all safety services.

Further, the presence of the federal government in the safety field, requiring extensive coordination with the federal Highway Safety Agency, plus the administration of federal appropriations and the necessity under these programs for the Governor to oversee and approve local programs, will require undivided attention of an office charged with traffic safety responsibilities.

It is estimated that the annual cost for establishing and maintaining this Division will be \$41,500 for new personnel in addition to those provided for in past appropriations for the Governor's Committee, the personnel of which would be transferred to the Division. In addition, an annual appropriation of \$8,400 would finance the meetings and expenses of the twelve-man Commission. Since these personnel would be evaluating programs for federal purposes, it is believed these expenditures would qualify under federal requirements for 50-50 matching funds.

- \* (2) Legislation should be enacted to require each city and county to formulate a local highway safety program and establish a local highway safety commission; and to provide for at least one meeting annually of the chairmen of the local commissions as the State's Advisory Committee on Highway Safety.

Local participation in the field of highway safety must be forthcoming, not simply because of federal standards or financial incentives, but mainly because local activity is absolutely essential to any State-wide safety effort. Adult driver education, driver improvement, local street and road conditions, the identification of local accident-prone locations and numerous other aspects of highway safety can be handled effectively only through the immediate involvement of local government.

The legislation which we propose will require each county and city to submit a highway safety program to the Governor any time prior to January 1, 1969. Priority items which should be covered in these programs are the status of and plans for affording adult driver education and driver improvement courses, methods of and plans for identifying accident-prone locations on highways under the locality's jurisdiction, and the degree of compliance with State design standards in construction and maintenance of highways within the locality's jurisdiction.

This legislation also provides for the establishment in each city and county of local highway safety commissions, which should meet not less than four times a year, be appointed by the local governing body, and have the basic responsibility of recommending to the local governing body a highway safety program and of periodically reviewing its implementation. All local programs adopted by the local governing body and submitted to the Governor would then be reviewed by the Governor or his designated representative for purposes of determining whether they shall be approved.

The greatest latitude for the organizational composition of such local commissions should be provided in order to meet varying governmental requirements, with the one proviso that one member of the local governing body be a member of the local commission to assure a proper and necessary liaison between these two groups.

A statutory State Safety Advisory Committee, not to exceed 150 members, composed of the chairman of each county and city highway safety commission as well as representatives of State-wide industry, civic and safety organizations, shall be appointed by the Governor—the latter for staggered terms of four years, eligible for reappointment for an additional term of four years. The function of the Committee shall be to provide organized public support through local and State-wide organizations for the State's Highway Safety program, provide advice to the State Highway Safety Commission with respect to formulation of a balanced program of traffic accident prevention, and to act as liaison between the locality and the State. The Committee shall meet not less than once a year and at such other times as the Highway Safety Commissioner may call. It shall elect its own Chairman, subdivide its membership into working committees and provide its own by-laws for its government.

The present Advisory Committee is too loosely organized for effective action and through no fault of its own has been criticized as little more than a discussion group. The above recommendation attempts to correct these weaknesses and at the same time permit the Committee to operate independently of State government and offer a fresh viewpoint. In addition to the functions outlined above, this new Committee will serve as an important forum for comparing local programs and exchanging information among the local commissions.

We recommend an appropriation of \$13,500 annually to cover the expenses of meetings and the circulation of material and information within the Committee and by the Committee.

- \* (3) Legislation creating the Highway Safety Division should give that agency specific responsibility to see that State laws relating to highway safety are complied with at the State and local government levels.

At present what is everybody's business is no one's business. As a result, many provisions for highway safety now in the Code are disregarded or, perhaps, unworkable. One function of the Division would be to follow through on enforcement results, suggest improvements which promote the workability of laws and report on defects in laws for legislative correction.

In addition, the Division will be charged with approving local programs and with following their implementation for purposes of meeting federal requirements for matching funds.

- \* (4) The new Highway Safety Division should also be given specific authority and responsibility for assisting in the organization of functioning local citizens' safety councils.

This recommendation ties in closely with those contained in the segment of this report on Public Information. As will be seen in that segment we are recommending additional fieldmen in addition to those currently working for the Governor's Committee, all of whom will be working out of the Highway Safety Division. These fieldmen should serve to assist in implementing the State program and in organizing and servicing local citizens' safety councils which will be active in the field of highway safety.

Unless there is public awareness of the safety problem and development of public opinion in support of safety programs, the public will often oppose official action through lack of understanding. Further, unless citizens give their active cooperation and support to programs for the prevention of accidents even the best programs cannot be made wholly effective. Many of these organizations die for the lack of leadership, lack of a definite program or job to do (such as an inventory of local needs, observation of functions of traffic courts), and lack of servicing. These stimuli must be provided from the State level. We see the furnishing of this leadership as a key function of the new Division.

- \* (5) To enable the State to secure benefits available under the federal Highway Safety Act, a consent statute should be enacted empowering the Governor to contract and take necessary steps to secure such benefits.

With respect to the legislative measure suggested here, we simply note that this type of legislation has been enacted since the first Federal-Aid Highway Act of 1916. It will serve to empower Virginia to take advantage of federal funds in the implementation of various phases of the proposed highway safety program.

### III. PUBLIC INFORMATION

#### A. Overall Goals

We desire to promote the use of all media of communication by imaginative and professionally qualified personnel for the broad dissemination of highway safety information to increase the safety education of drivers and pedestrians and to develop public understanding and support of a balanced traffic safety program. A necessary adjunct to this goal must be an

adequate staff of trained fieldmen whose responsibility it will be to contact not only mass media, but to establish working relationships with key people and organizations in each community.

## **B. Background**

### **(1) Current programs**

The National Safety Council has made no evaluation of Virginia's public information program since 1963. At that time Virginia received a high rating for the work being done in this field. In its 1966 summary of recommendations the Council had this to say:

"The Virginia public information program, as well as its materials, should be evaluated now and periodically in the future. This could be started by reviewing the public information data reported in the 1966 inventory. Major emphasis programs should be conducted as needed, directed at agreed-upon major needs and problems. The public information function should utilize, in balance, all available media and aids. Mass media use should be reinforced with personal influence type activities."

It was not possible for the Commission to make such a review, and even if it could have done so, its information would be incomplete as not all communities participated in the inventory. The Public Information Division of the Governor's Highway Safety Committee, through Mr. Hiram Smith, does a remarkably competent job, considering its budgetary limitations and the lack of an adequate professionally qualified staff. It requires personnel, which he does not have, to utilize to the best advantage professional advice and talent outside of State agencies. When the tremendous number and diversity of all appropriate outlets, such as newspapers, wire services, film, radio, TV, employee publications, trade journals, newsletters, etc. are considered, the Virginia organization for dealing with the problem leaves much to be desired. When the wide variety of types of information (from direct advice, such as radio announcements to turn on headlights at dusk, to statistical summaries) is considered, the need for expert talent to best use available information and media becomes obvious.

Nevertheless, laboring under the handicap of inadequate budget and personnel, the Public Information Division of the Governor's Highway Safety Committee is currently providing material that is predominantly (72%) good according to replies received from 29 broadcasters in response to a questionnaire sent out for the Commission by the Virginia Association of Broadcasters. Although no such questionnaire as submitted to the Virginia Association of Broadcasters was sent to affiliates of the Virginia Press Association, it can be assumed, from other readings, that the reaction would generally follow the same lines.

Personal-influence type activities are minimal to reinforce use of the mass communication media. To accomplish this Virginia has only two fieldmen working throughout the State. One of these lives in Richmond and one in Salem. A considerable portion of their time is spent in travel whereas if there were additional personnel they would be able to spend more man-hours in actual work within communities they would serve.

### **(2) Needs**

No better list of requirements could be cited than the Standards of the National Safety Council which follow:

"There should be a policy statement that makes clear the objectives of the public information program. These objectives should in-

clude the following: (a) Telling the public the facts about traffic accidents—their number, where and how they occur, and why. (b) Defining and explaining the official measures that make up the State's Action Program for Highway Safety and building public support for them. (c) Providing individual drivers and pedestrians with the information they need to protect themselves and others. (d) Continually emphasizing the need for each individual to meet his personal responsibility. (e) Utilizing special-emphasis programs when they are appropriate.

“The public information function should be adequately staffed with professionally qualified personnel. Professional degree in public relations or related discipline or equivalent experience plus periodic re-training through attendance at such courses as those directly inaugurated by the Mass Communication Center at the University of Denver.

“The public information function should utilize professional advice and talent available outside of state agencies. A working relationship should be established between the public information function and the members of the communication sciences and social disciplines of the state's universities and colleges, as well as with other professional groups within the state.

“Major emphasis public information programs should be periodically conducted by each state, directed at agreed-upon major needs and problems that exist within the state.

“The public information function should utilize—in balance—such materials as news releases, fact sheets, cartoons, suggested editorials, photos, charts, radio-TV spot announcements and suggested script, TV slides and films, radio transcriptions, and feature articles.

“Personal-influence type activities should reinforce the use of the media of mass communication. State agencies should utilize the state safety council for developing coordinated organizational support for public information objectives. These organizations would include churches, schools, civic groups, industry, fraternal organizations, professional associations, and such. These organizations should be furnished with such program items as qualified speakers, traffic safety films, brochures and other printed materials, posters, speech outlines and suggested speeches, plus the technical assistance needed to plan meaningful traffic safety programs consistent with the organization's objectives and members' interests. Information on the National Safety Council's Driver Improvement Program should be included as part of the above.

“The objectives of the public information program, as well as program materials, should be periodically evaluated as to their currency, usefulness, and effectiveness.”

The Commission was especially impressed by three specific needs:

*First:* The need to tap the know-how of available specialists in the field of mass communication in order to reach the public more effectively, especially that portion of the population which the normal processes of education does not touch.

*Second:* The need to better utilize mass communication for continuing education of all drivers and pedestrians.

*Third:* The need for additional personal-influence personnel working throughout the State with local officials, citizens groups, etc. Since there

is no substitute for personal contact, it follows that more fieldmen are needed.

In the preceding section of this report, it is proposed that counties and cities be required to carry out local highway safety programs within their jurisdictions as a part of the State program. These local programs will have to be approved by the Governor and should be in accordance with the standards promulgated by the U. S. Department of Transportation. The coordination of these programs will have to be aided largely by field representatives, thereby greatly increasing the already demanding workload now being carried by the present fieldmen.

### C. Recommendations and Reasoning

- (1) The present staff of two fieldmen for the Governor's Highway Safety Committee should be expanded to six men.

Tripling the existing staff should more than quadruple the working capacity of this staff through cutbacks in time devoted to travel. The need for additional men is obvious and must be filled.

The job of fieldmen is to carry public information work beyond the simple dissemination of highway safety literature and announcements. The most vital aspect of their work is to assist in the establishment of local safety councils, to service such councils and to aid local governmental organizations in setting up and implementing local highway safety programs.

The added personnel which we suggest is the bare minimum needed and will require an added appropriation of \$50,648 per year which may qualify as a new State appropriation for personnel to evaluate highway programs and for matching federal funds on a 50-50 basis.

- (2) The Director of Public Information should utilize, to the extent feasible, professional talent from advertising agencies and like groups in the production of safety programs and materials.

We would urge the Director of Public Information to utilize to the fullest extent possible the services of professional advertising, design, communications and public relations personnel in the production and evaluation of programs, announcements, articles and all materials. Many of the comments sent in by broadcasters coincide with this suggestion.

- (3) Public information programs should place primary emphasis on continuing education of drivers and pedestrians.

We wish to emphasize the importance of using mass media to educate drivers and pedestrians how to use the highways. Their education, begun in schools, must be continued so that they know how to use new, high-speed highways safely, learn of changes in rules of the road and are made aware of defensive driving techniques and other facts which will improve their chances on the road.

It is not enough, though unfortunately it seems necessary, to tell the public of the seriousness of the highway accident epidemic. Major attention should be given to professionally-packaged, educational driving information to continue driving education for those with some past instruction and to reach the seriously large number of drivers with no previous driver training.

- (4) Public information materials should be evaluated periodically by outside experts.

We are convinced that it is of real value to have, in addition to review by our State agencies, a periodic review, at least every two years, of our public information program and materials by outside experts. Such outside review could be conducted by either the National Safety Council which has in the past performed this service or by a panel of private citizens with expert knowledge in the field.

The benefits of such review are found in the comparison of our program to those of other states, the stimulation of new ideas and in the discovery of weak spots in the program often discernible only by persons not directly connected with the program.

## **IV. RESEARCH**

### **A. Overall Goals**

Virginia's goals in this field should be to establish and maintain adequate research and evaluation facilities in the State, and within those major departments having safety responsibilities, for the collection, evaluation and dissemination of information for the prevention of highway accidents in Virginia, and the reduction of the severity of accidents that do occur.

### **B. Background**

#### **(1) Current research activity**

The State Highway Department and the Virginia Highway Research Council are already conducting, within budgetary appropriations, a limited program in safety research. The limited research being done in Virginia appears to be of high quality. While there is considerable collection of accident statistics and data which are most useful, no other department, such as the Division of Motor Vehicles or the Department of State Police, Health, Education or Labor, is engaged in any continuous research operations leading to evaluation of safety information. This lack is due to both a scarcity of funds and adequately trained personnel.

The preceding statement is subject to the important qualification that continuous and valuable operational use is made of accident statistical data, particularly by the State Police. For example, the State Police make a periodic analysis of crash statistics and rates to see if proper steps are executed to bring about a logical relationship between crashes and enforcement at specific locations. In addition, the Department of State Police has a newly organized Research and Development Division which can prove of real value in increasing the analysis made of data being gathered.

The Division of Traffic and Planning of the Highway Department maintains an accident analysis section, employing 21 people, which is operated on funds provided by the maintenance allocation of the Highway Department. They recently submitted 525 specific problems for analysis and correction under the federal spot improvement program which will involve \$12 million in expenditures over the next four years, assuming the funds are available.

This analysis program, which was begun in 1952 when the Highway Department found that accidents were an indication of engineering problems, concentrates its attention on the search for accident-prone locations by use of a rule-of-thumb which requires investigation of every location where five accidents have occurred and through investigation of inadequate stretches of road where numbers of accidents occur.



To pinpoint the severity of the accident-prone locations problem in Virginia, the State Police reported that for the year 1966 there were some 1,700 known accident-prone locations on Virginia highways under jurisdiction of the Highway Department. The Associate Engineer of Traffic and Planning pointed out that engineering has a tremendous impact on safety and that the correlation between improved roads and reduced accidents is extremely close. He further stated that their analysis section was severely limited in the amount of research work which they are doing and would like to expand. As stated in "Reducing Accidents by Traffic Engineering", published by the Division of Traffic and Planning of the Virginia Department of Highways, "these corrective measures have been limited by the amount of highway funds available for expenditure."

The above statement, which was made in 1957, remains an apt description of the inadequacy of the research and corrective effort in relation to the size of this particular problem. The Director of Program and Planning for the Highway Department reported that in 1965-1966, \$233,500 was allocated for correcting 22 specific accident-prone locations, and in 1966-1967, \$441,500 was allocated for 39 specific projects. *The magnitude of the problem can be emphasized by repeating that the 1966 State Police Report pointed to 1,700 accident-prone locations within the State.*

The Division of Traffic and Planning publishes, in cooperation with the State Police and the Bureau of Public Roads, an excellent "Summary of Accident Data" which provides a comprehensive picture of the accident problem on the three State highway systems. There remains, however, the task of interpreting these data to develop operational policies.

The Virginia Highway Research Council, which was established in 1948, is sponsored cooperatively by the Department of Highways and the University of Virginia. It is located in the University's School of Engineering and Applied Science. The governing body is the Administration Board composed of the Virginia Department of Highways Deputy Commissioner and Chief Engineer, the Director of Programing and Planning and the State Highway Research Engineer; the University's Dean of the School of Engineering and the head of the Department of Civil Engineering.

The objectives of the Council are: "To serve as a center for securing and disseminating information leading to a more scientific and improved approach to highway transportation, engineering, and research; to educate and train men in the fundamentals of highway engineering and other areas encompassed by highway transportation."

The research sections of the Council are: Bituminous, Bridges, Concrete, Economics, Geochemistry, Maintenance, Pavement, Petrography, Sod, and Traffic. In its 1966 Annual Report the Council noted that the section on Traffic, one of the most important from the standpoint of highway safety, is now inactive. Hope was expressed in the 1966 Annual Report that the Traffic section could be staffed in the near future.

The Council pursues the following activities: (1) research, (2) education and training through short courses and conferences for men in the field, (3) development of communications and efficient exchange of information with other agencies doing research in this field, and (4) the writing and publication of the results of research projects.

The types of studies released by the Council range from papers on skid-resistant pavement and studded tires to an analysis of the enforcement of selected traffic laws. The latter was a study done by the Council for this Commission. The bulk of the Council's work relates to analyses of highway materials.

Very little research is done with respect to highway safety as such. It was noted by the Director of the Council that the Council did not go into interpretation of State statistics such as those gathered in "Virginia Crash Facts." He also noted that the Council had a high turnover in professional employees. "The Research Council in recent years has had difficulty in recruiting personnel because State salaries are not as high as professional salaries in the academic world and both are often below those of industry."

Over the past three years the Council has developed a library to the extent feasible within available space and limited means. The Council also has available the engineering library of the University.

## (2) Needs

After reviewing the research efforts of the Commonwealth, the National Safety Council in its 1966 Report on Virginia's Status and Needs made the following recommendations:

### "RESEARCH AND DEVELOPMENT

- "A. The Governor should endorse a policy defining the role of research and development in the state's program, including a provision for evaluating their effectiveness.
- "B. A professionally staffed, research and development coordinating unit should be established to assist other departments. Each major operating department also should have its own research and development section.
- "C. University traffic research facilities should be provided for by allocating an appropriate portion of the highways budget.
- "D. A summary of needed research should be prepared and kept up-to-date.
- "E. Research priorities should be established.
- "F. Virginia should support the development, testing and application of research findings.
- "G. Research and development consultation and assistance should be provided by the state to counties and cities.
- "H. Cost-benefit studies should be made periodically."

The above recommendations of the National Safety Council provide as fair a summary as any on where Virginia now stands and what needs to be done with respect to research in safety matters.

The recent federal legislation which directs the national Highway Safety Agency to undertake research concerning motor vehicle safety performance and provide for national vehicle safety standards should be kept in mind while determining Virginia's program. The Agency will undertake under the federal statutes broad basic safety research programs and demonstration projects. In view of the potential activities of the federal government in this field, it is obviously undesirable and unnecessary for the Commonwealth to duplicate research conducted by the national Agency. Nevertheless, there remains a great deal to be done on the State and local levels to tailor our safety programs to Virginia conditions and State statutes. Further, Section 402(b)1 of the federal Highway Safety Act of 1966 provides: "The Secretary shall not approve any State Highway Safety program under this section which does not—provide for . . . (5) adequate research . . .". *In addition the federal standards require periodic evaluation of State and local safety action.*

### C. Recommendations and Reasoning

- \* (1) A professionally staffed research, evaluation and traffic accident prevention center should be established to assist State agencies and localities with highway safety programs and to carry out and coordinate research activity.

A professionally staffed research, evaluation and traffic accident prevention center should be established to assist the operational State agencies in the development of the State's safety programs and to evaluate the effectiveness of such programs. The center should act as the coordinating unit for all highway safety research within the State. Research and accident prevention assistance should be provided by this center to all counties and cities in the development of local programs. Specific functions which should be assigned as soon as feasible to the center will be treated in the three following recommendations. We set out at this point what we believe to be the best way to organize the center with the maximum benefit and least cost to the State.

The center should be established through the revamping and expansion of the Virginia Highway Research Council which would itself be the logical organization to assist in developing in necessary detail the full structure of the proposed center. The Council already possesses a basic research organization, professional competence, experience in highway research and established connections with the Department of Highways and the academic community of the Commonwealth. It is located at the University of Virginia with access to the facilities of the University.

The center should be under the direction of the State Highway Safety Commissioner but with its own director. It should be organized so as to operate free of the domination of any State agency and under the Governor's control through the Highway Safety Commissioner. It could and would, of course, continue highway engineering research projects for the Department of Highways as in the past.

It is our hope that the center can be initiated prior to the end of this year: first, through the appointment by the Governor of a committee of State officials to outline functions of the center, its organization and its relation to existing programs for highway safety in the State; second, through the assemblage of a traffic safety library at existing Council and University facilities; and third, through preparation of a feasibility study by the Council in cooperation with State agency personnel to delineate the most needed research areas, the best means to coordinate agency activities and center services, and the ways to put research findings into practice.

Therefore, we recommend the Governor pursue this suggestion through agreement with the Council. Funds needed to finance these initial steps have been estimated by the Council to be \$100,000 and can, we understand, be sought from federal funds which would match existing State expenditures. Sums of \$200,000 and \$300,000 should be appropriated in the two years of the coming biennium to finance center research and evaluation projects. These new expenditures would then qualify for matching federal funds.

- \* (2) The proposed center should prepare and maintain a detailed list of needed research projects and available studies.

The research, evaluation and accident prevention center should prepare a list of research needed for the improvement of traffic safety in

\* As noted earlier, legislation for recommendations starred will be carried in the Legislative Appendix.

Virginia, and such a summary should be continuously up-dated. Priorities for such research should be established. It is to be noted that this recommendation specifically relates to operational research and evaluation as it pertains to traffic safety in the Commonwealth and does not cover the basic, general research which will be done on a national and regional basis in the future. It is logical, therefore, that interpretation of State accident statistics, and analyses of safety programs, enforcement techniques, and statutes in order to develop accident prevention and to detect weaknesses in Virginia's enforcement system ought and should be a matter of first priority.

This list or current bibliography would be a highly developed follow-up to the section of the feasibility study, called for in the preceding recommendation, on the delineation of most needed research areas.

\* (3) The proposed center should develop a highway research library.

There should be established at the research center an adequate repository of highway safety information. This library should have the capability of effectively transmitting research findings and accident prevention data accumulated from all sources, national and State, as it is needed, to those charged with highway safety responsibilities in the State government and in the localities.

This feature of the center should have top priority as indicated above in the discussion of the initial organization of the center.

\* (4) The proposed center should report its own research findings and recommendations systematically.

The center should systematically make available to appropriate State and other public officials and to the general public the results of its findings. Insofar as possible it should translate such findings into specific programs and recommendations for application to and improvement of highway safety procedures and programs. In this manner it can most effectively assist the new Highway Safety Division to formulate and evaluate State and local highway safety programs.

(5) Separate research divisions should be formed within those State agencies having particular responsibilities in the field of highway safety.

The Highway Department, the Division of Motor Vehicles, and the Department of State Police should have their own research, planning and development sections. Department heads and other officials responsible for decision making are so busy with day-to-day administration it is not possible for them to do justice to their important areas of responsibility and at the same time engage in analysis, research, development and planning.

The State Highway Department already has a Division of Traffic and Planning, which is doing research and analysis on a limited basis, which needs to be expanded to a degree commensurate to the task. The Department of State Police has initiated activities along these lines. The Division of Motor Vehicles has estimated the cost of initiating a planning and research section at \$60,000 annually. These Departments should be fully supported in their efforts to establish and expand such divisions, and adequate provision should be specifically allocated in the Budget for that purpose.

These three are the key agencies in the field of highway safety which should be encouraged to have active research and analysis sections. They

currently collect and use quantities of data relevant to highway safety, drivers and vehicles. These research sections can bring analysis and interpretation to bear on such data to develop innovations and new safety measures. In time, we hope other agencies such as the Health and Education Departments can follow suit.

Because the area of need for research and analysis is so great in all departments, we are reluctant to single out any one activity for budgetary preference. *We do, however, recognize that great potential for saving lives lies in the analysis and correction of accident-prone locations.*

## V. UNIFORM LAWS

### A. Overall Goals

Our primary area of concern under this topic has been Virginia's statutes as measured against the Uniform Vehicle Code. It has not been our immediate goal to bring Virginia's laws into conformity with the U.V.C. for several reasons. First, Virginia has for many years paid close attention to the Code, and in many instances, we have frequently as a matter of course adopted provisions comparable to those in the Code for use in Virginia. Second, the U.V.C. itself is presently undergoing intensive study which will culminate in a new revised Code available early in 1968. Third, our time and staff were insufficient to conduct a section by section comparison and evaluation of these two bodies of law.

We have, therefore, concentrated our efforts on several more troublesome areas and provisions which have been brought to our attention and reviewed these in terms of the U.V.C. and Virginia's specific conditions and needs.

### B. Background

Both the Uniform Vehicle Code and Virginia's motor vehicle laws are, of course, available, but not in a comparative form which could be of great assistance to legislators, State administrators and others concerned in the field of traffic and highway safety.

At the time this study was initiated, the only available comparative study was one making use of the "Workbook To Facilitate Uniform Traffic Laws" produced by the National Highway Users Conference. This Workbook contains the U.V.C. provisions with spaces to insert comparable Virginia sections and to add comments. It was completed only in part in 1964 through the efforts of the Department of Education, Department of Highways, Division of Motor Vehicles and Department of State Police. Only one copy of this Workbook is available and it is very incomplete and out of date.

A major need, recognized by the committee of this Commission studying this area near the outset of its investigation, is for a usable comparative study of Virginia's motor vehicle laws and the provisions of the U.V.C. To that end the study committee adopted the following:

### RESOLUTION

Whereas, a comparative study of Virginia's rules of the road and related laws and the Uniform Vehicle Code should be of great assistance to all concerned with highway legislation in Virginia; and

Whereas, this Committee understands that the United States Bureau of Public Roads treats such comparative studies as proper

items for highway planning and research fund grants, and that federal highway planning and research funds are available upon application by the State Department of Highways to the Bureau of Public Roads to finance such a study at a cost estimated to be \$6,500; now, therefore, be it

Resolved by the Committee studying Uniform Laws and Ordinances, That the Executive Committee of the Virginia Traffic Safety Study Commission seriously consider requesting the State Department of Highways to include a comparative study of Virginia's motor vehicle laws and the Uniform Vehicle Code in its program of highway research and planning operated in conjunction with the federal government so that such a study may be made available to the members of the next General Assembly and other concerned State officials prior to January 1, 1968.

In compliance with this Resolution the Executive Committee instigated discussions with the Highway Department to negotiate for funds for this study. The comparative study is now under way and being conducted by the Committee on Uniform Traffic Laws and Ordinances under contract with the Highway Department. It should be complete by the latter part of this year and available to members of the General Assembly and officials in State government.

Other needs concerning revisions in Virginia law are taken up one by one in the recommendations which follow.

### C. Recommendations and Reasoning

- \* (1) Provisions governing the use of flashing warning lights and sirens by emergency and special vehicles should be simplified and made more uniform by limiting the use of red flashing lights to actual emergency vehicles and school buses and by utilizing yellow lights for maintenance vehicles and blue lights for identification purposes.

On this question we sought the advice of all those groups which use emergency or other vehicles in Virginia for a recommendation that will simplify the provisions concerning and use of special warning devices.

It should be noted in this area that the U.V.C. definition of "authorized emergency vehicles" is followed exactly by only nine in 51 jurisdictions and not utilized at all by nine others. The remaining states use a definition which deviates to some extent from the Code.\*\*

In this instance, the Commission feels that, since interstate uniformity is unattainable, the prime goal clearly must be to simplify the use of lights so that Virginia's motorists will know when to yield the right-of-way and when to expect special vehicles to pass at intersections, go through stops and the like. Thus our recommendation is to limit the use of red flashing lights solely to those emergency vehicles authorized to disregard such laws and to school buses which constitute a unique category of vehicle, and to prohibit the use of such lights by construction and maintenance vehicles and privately owned individual vehicles belonging to volunteer firemen or rescue squad members.

In other words, flashing or revolving red lights should, with the sole, well-understood exception of school buses, signal an emergency and alert the driver to yield and permit the emergency vehicle to proceed.

\* Legislation for recommendations starred will be carried in the Legislative Appendix.

\*\* See, 2 Traffic Laws Annual 2-8.

Our current use of red lights on maintenance and private vehicles dilutes their warning and emergency value. We recommend yellow lights for warning purposes and use by maintenance vehicles and blue for identification purposes and use by individual volunteer firemen or rescue squad members operating their own cars.

- \* (2) Virginia should adopt the Uniform Vehicle Code concept which provides that motorists on separate roadways need not halt for stopped school buses.

We are recommending the adoption of this U.V.C. provision in Virginia through amendment to § 46.1-190. That section enumerates specific instances of reckless driving and currently defines every instance of passing a stopped school bus as reckless driving.

The surrounding states of Delaware, Maryland, North Carolina and West Virginia and the District of Columbia as well as the U.V.C. all recognize through provisions similar to U.V.C. § 11-707(d) that stopping on one roadway for a school bus halted in an entirely separate roadway as on our four-lane major highways is an impractical requirement since motorists on such separated roadways do not watch and should not be called on to watch traffic on a separated roadway so as to distract their attention from their own roadway's traffic.

Some 37 jurisdictions have adopted provisions similar to the Code while Virginia is among the fourteen states which have not.

In this instance it appears preferable to follow the logic of the U.V.C. and eliminate a discrepancy in Virginia's rules of the road which makes interstate travel for out-of-state and for Virginia's motorists more confused.

Evidence from other states indicates no increase in accidents involving school buses and school children can be attributed to this rule, and we suspect that confusion over Virginia's rule and the erratic stopping caused by it may contribute to other accidents.

The legislation which we recommend follows the U.V.C. rule which provides an exception for vehicles traveling on separate roadways to the general requirement of stopping for school buses.

- \* (3) All possible encouragement should be given to the promotion of uniform traffic signs and signals throughout the Commonwealth.

We have already adopted legislation to this end in Virginia. Section 46.1-187 requires all traffic signs, signals and markings set up by localities to conform to those erected by the State Highway Department and thus to the Department's manual on specifications. As the statute currently reads, there may be some room for deviation from the Department's specifications manual because the section now only requires localities to conform "substantially" to the Department's standards. The legislation which we endorse simply eliminates the term "substantially" to avoid argument or doubt in this most important area.

- \* (4) The provisions relating to stopping before entering a highway should make it clear that the motorist must both stop and wait until it is safe to proceed.

During consideration of the preceding recommendation, it was brought out that §§ 46.1-190(j) and 46.1-247 which concern stopping before entering a highway have been interpreted in some instances to

require stopping and nothing else. We propose an amendment to make it the explicit duty of the motorist to stop until he can proceed safely.

- \* (5) Provision should be made to permit the Highway Department to post differential speed limits for daytime and nighttime driving following an engineering and traffic study.

Two facts dictate the potential value of a lower nighttime speed limit:

*First*, despite the fact that nighttime traffic volume in Virginia is approximately one-half of the daytime volume, of the 908 fatal crashes in 1966, 52.6% occurred after dark and an additional 3.1% occurred at dusk. This means that if traffic volumes were equal both daytime and nighttime, two and one-half times as many fatal crashes would occur during dusk and at night.

*Second*, in 45% of these fatal crashes and in 13% of all crashes excessive speed was a contributing factor.

These simple facts warrant careful consideration being given to the practice of reducing the speed limit for nighttime driving when visual perception is itself reduced.

Both the Uniform Vehicle Code and some 23 states have statutory provision for reduced nighttime speed limits.

The legislation which we recommend will permit the State Highway Commissioner to decrease statutory speed limits for nighttime driving and post the daytime/nighttime differential speed limits following an engineering and traffic survey of the segment of highway posted. This authority is similar to that already given the Commissioner in § 46.1-193 with respect to posting speed limits less than the statutory limits following such a study.

The amendment which we propose to § 46.1-193 will permit the Commissioner to test the daytime/nighttime differential within the State and develop data on its effectiveness.

- \* (6) The differential in speed limits for trucks and automobiles should be revised to decrease the differential on divided four-lane roads.

The present differentials are found in § 46.1-193 which provides that automobiles and light trucks shall be governed by a 65 mile per hour speed limit on Interstate and limited access divided highways and that trucks generally shall be governed by a 50 mile per hour limit on such highways; and further that automobiles and light trucks travel 60 miles per hour on other divided four-lane highways and that trucks generally travel 50 miles per hour on such highways. A 55 mile per hour-45 mile per hour differential applies to other highways.

We recommend that this differential in maximum speeds should be reduced with respect to Interstate highways, limited access divided highways and other divided four-lane highways by setting a 55 mile per hour maximum for trucks on these roads.

The value of a wide differential lies, to a large extent, in the fact that it permits faster moving vehicles, without exceeding safe limits, to pass heavy trucks and the like by imposing a slower limit on the latter. If trucks could travel at 55 miles per hour on three and two-lane roads, vehicles following them would have a strong tendency to exceed safe limits to pass such vehicles, especially in hilly areas where trucks travel at somewhat uneven speeds.



On our four-lane divided highways, however, other motorists can pass slower moving vehicles in a clear lane without undue hazard and one reason for wide differentials is erased. On such roads a more uniform overall speed contributes more to safe traffic than does a broad differential.

In light of the high speed limit on our Interstate roads we do not recommend abolition of the differential altogether.

We believe the 55 mile per hour limit for trucks on these major routes will permit a smooth flow of heavy commercial traffic through the State and a more steady flow of all traffic on these roads.

\* (7) The use of new warning devices which permit a motorist to flash all four turn signals simultaneously should be stimulated through legislation to require their use in hazardous situations.

Through this recommendation we wish to encourage the use of a new device for warning motorists of hazardous conditions on all roads, especially our new high-speed expressways where advance warning of accidents and stopped cars will enable approaching motorists to slow and stop in time to avoid accidents.

The legislation which we propose requires the motorist to flash all four turn signals simultaneously if his car is one of the newer models equipped with a switch which permits such a warning signal and if he is temporarily stopped on the traveled portion of the road in a hazardous situation. The U.V.C. provision (§ 12-220(d) ) concerning the use of warning lights, while not directed specifically to this type of new device, is the source, in part, for our proposed legislation (by amendment to § 46.1-299) in the use of the concept of a hazardous traffic situation.

\* (8) Slow-moving equipment should be required to yield the right of way to traffic following it by pulling off the road whenever the condition of the shoulder permits.

In the interest of moving traffic smoothly and regularly, we recommend the adoption of a new section (§ 46.1-211.1) to require any slow-moving equipment and machinery unable to travel at the posted speed limit to yield the right of way to traffic which backs up behind it and when necessary to pull off on the shoulder of the road for this purpose if the condition of the shoulder permits.

## **VI. DRIVER EDUCATION**

### **A. Overall Goals**

The goals of driver and traffic safety education are the building of responsible traffic-conscious citizens and the conservation of our human and economic resources through avoided accidents. Driver education is preventive medicine for our highway ills.

The aim of our program should be to help young people develop lifelong patterns of intelligent thoughts, actions and attitudes that will manifest themselves in safe walking, driving or riding in a vehicle. This includes the ability to deal with new situations as traffic conditions constantly change. Continuing and adult driver education should be used to fortify our school program and to fulfill these goals.

## **B. Background**

### **(1) Classification**

Driver education and driver improvement are the two classifications into which the many programs of education for traffic citizenship usually fall. Driver education generally refers to programs consisting of both "classroom" and "traffic" experiences provided for the purpose of helping prospective new drivers to become good traffic citizens and use motor vehicles safely and efficiently. Driver improvement generally refers to programs for persons who are already licensed to drive.

Driver education should include a study of:

- (1) The place of motor vehicles in modern living
- (2) The driver—his personal qualifications, attitudes and social responsibilities
- (3) Fundamentals of legal structure and codes relating to traffic safety
- (4) Characteristics of streets and highways
- (5) Fundamentals of auto mechanics, including preventive maintenance
- (6) Fundamentals of consumer education relating to motor vehicles
- (7) Skills of driving—including "in traffic" experiences to provide students the opportunity to use their knowledge and skills in a way that will develop their ability to judge rightly and respond correctly to a broad variety of traffic situations.

This instruction provides the beginner with sufficient basic information and skills to make good decisions and proceed towards becoming a good driver. It actually takes years to become a highly proficient driver.

Driver improvement can be tailored to meet specific needs with emphasis as a refresher course focusing on new driving conditions and rules for the past-licensed driver or with emphasis on attitude and responsibility for the traffic violator.

### **(2) The effectiveness of driver education in reducing accidents and violations**

An Illinois study shows that convictions for moving traffic violations were received two and one-half times more frequently by sixteen-year-olds without driver education than those with driver education. By age 20 this ratio was seven to one in favor of the trained drivers. Accident involvement statistics also favored the trained drivers by 14%.

A New York study shows that 960 untrained high school students had 50% more violations and 22% more accidents than 960 trained students.

A Connecticut study shows that high school trained young drivers have a violation rate only 61% that of parent trained drivers and only 55% that of those trained in commercial schools.

Another study by an insurance company indicated that driver educated people under the age of 25 had somewhere between 40% and 50% fewer accidents and moving violations than the nontrained in the same age bracket. It is this kind of study which has led insurance companies to reduce premium rates for those completing driver education and to demonstrate their confidence in driver education in a concrete manner.

A study by the National Commission on Safety Education of the National Education Association covering fourteen state programs and fourteen city programs resulted in the following:

“Most of the studies found that drivers who are graduates of a high school course in Driver Education have fewer accidents and violations than drivers with no formal high school course in Driver Education. The evidence presented in this report may be regarded as conclusive.

“The amount of superiority shown for the trained drivers vary greatly among the studies. However, the studies which appear to have controlled a maximum of variables have found for trained males a superior performance of 30% to 50% for the initial period of driving. The exact per cent does not seem as important as the fact that it consistently reflected superior performance.

“The drivers who completed a course in classroom and practice driving instruction generally were found to have a better record than drivers whose course was limited to classroom instruction. It appears that the salutary effect of Driver Education is most evident in the early stages of driving. As experience increases, the performance of the trained and untrained drivers tend to equalize. Further investigation of the lasting effect of Driver Education is needed to establish generalizations in this area.”

*Conclusion: Studies show that driver education is related to improved driver performance and a resultant decrease in accidents and moving violations.*

### (3) Our present driver education program

At the present time, *driver education teachers* are certified if they have three semester hours of college credit in Basic Driver Education. We are told that in most cases the teachers will also have had one semester hour of first aid and one semester hour of general safety education. As of July 1, 1968, arrangements have been made to raise certification requirements to include not only three semester hours of driver education, but in addition, three semester hours of General Safety Education.

Until recently, scholarships available to qualify teachers to teach driver education were limited. We are told that since the driver education fund is now available to provide such scholarships that more and more are being made available.

Further, the State Department of Education conducted a workshop at the University of Virginia in June, 1966, for purposes of improving and expanding college driver education courses. Three course outlines were developed to aid the college authorities in better preparing teachers for driver education. These courses are General Safety Education, Driver Education I (Basic Course), and Driver Education II (Advanced Course).

The *driver education program financing* is based on a \$1 charge (effective in 1962) which is added to both new and renewal operators' and chauffeurs' license fees. In addition a pupil fee up to \$10 may be charged by local school districts for practice driving instruction.

Income and disbursements from this particular fund are noted below.

<i>Year</i>	<i>Income</i>	<i>Disbursements</i>	<i>Balance</i>
1962-63.....	\$778,794	None .....	\$ 778,794
1963-64.....	879,435	\$260,712.....	1,337,516
1964-65.....	690,855	401,692.....	1,626,678
1965-66.....	849,608	509,043.....	1,967,595
1966-67.....	868,131	752,433.....	2,083,293

Local school boards may be reimbursed up to \$40 per student for the expenses of a pupil who completes a State-approved driver education course. The requirements are 36 periods of classroom instruction and seven periods of practice driving instruction by a certified teacher.

Classroom instruction is a part of the health education curriculum and, as such, is mandatory. However, in many cases, the courses are taught by teachers who are not certified. The practice driving plan of driver education is optional with the local school boards. Where approved courses in local school districts are available, instruction may be available during or after school, on Saturdays, or during the summer months; and in some areas behind-the-wheel instruction is not available at any time even though there would seem to be no problem in obtaining cars from manufacturers and automobile dealers. In these areas the main deterrents seem to be a lack of interest on the part of the local school officials, the lack of certified teachers, and the cost.

During the year 1965-66, 360 of the State's 415 high schools offered some type of driver education course. Of this number 70% or 290 schools offered both classroom and behind-the-wheel approved programs. The Insurance Institute for Highway Safety in their publication entitled "19th Annual Driver Education Achievement Program" indicated that of 96,202 students eligible for both phases of driver education in Virginia, only 26,399 or 27% were actually receiving such courses. It is generally agreed that less than 33% of the students in the public school system now are receiving both phases of driver education courses.

Driver education courses have been given in the ninth grade. With the increase in the licensing age to sixteen, it is now anticipated that such instruction in the future will be given in the tenth grade. The following represents the number of students in the ninth and tenth grade as of July 1 in the year indicated.

<i>Year</i>	<i>Ninth Grade</i>	<i>Tenth Grade</i>
1963	71,847	63,782
1964	70,607	63,702
1965	71,633	65,051
1966	77,483	68,024

#### (4) Needs

A great deal of attention has been given to the matter of proper standards to assure adequate driver education by educators, the National Commission on Safety Education, the National Safety Council, the Insurance Institute for Highway Safety, and many others.

From the information developed by these various organizations, it properly can be concluded that:

- (1) An approved driver education course should consist of not less than 30 clock hours of classroom instruction and six hours of behind-the-wheel practice instruction.

- (2) Certified teachers should have a minimum three semester hours in an introductory Safety Education course, nine semester hours in Driver & Traffic Safety Education, three to six semester hours of electives in behavioral sciences (sociology, social psychology, abnormal psychology and other courses dealing with theories of personality), and three to six semester hours of other relevant electives (enforcement, engineering, legislation, and licensing, State and local administration, traffic management, community relations, auto mechanics or audio visual education).

We also note that the Highway Safety Act provides in part:

“(b) (1) The Secretary shall not approve any State highway safety program under this section which does not—

(A) provide that the Governor of the State shall be responsible for the administration of the program. . . .

(E) provide for comprehensive driver training programs, including (1) the initiation of a State program for driver education in the school systems or for a significant expansion and improvement of such a program already in existence, to be administered by appropriate school officials under the supervision of the Governor as set forth in subparagraph (A) of this paragraph; (2) the training of qualified school instructors and their certification; (3) appropriate regulation of other driver training schools, including licensing of the schools and certification of their instructors; (4) adult driver training programs, and programs for the retraining of selected drivers; and (5) adequate research, development and procurement of practice driving facilities, simulators, and other similar teaching aids for both school and other driver training use. . . .”

### C. Recommendations and Reasoning

- (1) The State Department of Education should continue to advance Virginia's driver education program and to this end should support the State's highway safety program and compliance with the federal highway safety standards.

The Department has this fall already taken a first step toward a more soundly based driver education program through the establishment of driver education as a separate program comparable to, rather than only one feature of, health and physical education. Thus one recommendation of the Commission's committee studying driver education is now moot. That recommendation called for a new position of Supervisor of Driver Education so that the driver education program could be treated on its own merits as a separate phase of secondary education and be given full-time supervision. This position has now been created and filled.

We urge the Department to continue this trend of strengthening driver education and to support the State's highway safety program and compliance with federal highway safety standards relevant to driver education in the same manner in which it has cooperated with this Commission.

In the course of our study we have concluded that several areas merit special attention by the Department. We bring these points forward as recommendations for administrative consideration and action rather than legislative enactment:

*First*, the Department should adopt the philosophy that both phases of driver education shall be a part of the school curriculum and that every

student shall be afforded the opportunity to take both classroom instruction and behind-the-wheel training. This does not preclude the possibility that in addition to offering driver education during regular school hours behind-the-wheel training may be offered after school, Saturdays, and during the summer months so long as it is comparable to the practice driving part of a regular full-semester course.

*Second*, the Department should periodically reexamine courses of study and general guides to safety with stress on traffic problems for elementary schools and encourage local teacher groups to formulate techniques and gather materials related to Department guides.

*Third*, the Department should work to increase gradually the certification requirements of teachers in the driver education program to meet those standards outlined above in our discussion of "Needs" or a minor in driver and safety education ranging from 18 to 24 credit hours.

*Fourth*, the Department should encourage the State's teacher education institutions to recognize their responsibilities in the field of safety education by including the necessary courses in the curriculum.

\* (2) Driver education should be provided on a basis similar to other courses and free of cost to the student.

Under present law, the local school district is authorized to require each student enrolled in a course of behind-the-wheel instruction to pay a \$10 fee for the course. The amount of this permissible fee was reduced from \$15 to \$10 by the 1966 General Assembly, and we believe it is time to eliminate this charge completely.

The behind-the-wheel phase of driver training is a vital part of any program of driver education and should be as available to the student as the classroom phase. A special fee may discourage students from enrolling for the course where the school district offers it as an elective; and charging a fee when the course is required of all students may impose an unfair burden on some students.

In attempting to make our driver education program available to all youngsters of licensing age, which is the thrust of the federal standards, we believe it should be made available without special charge.

\* (3) Driver license applicants under age eighteen should be required to have passed an approved driver education course as a prerequisite to licensing.

Without changing the existing age requirements for licensing in Virginia, we recommend that the successful completion of an approved driver education program should be a prerequisite for obtaining a license prior to age eighteen.

The adoption of this recommendation will mean the State recognizes the vital importance of a driver education as a proven way to develop a driving public conscious of the meaning of traffic safety and able to contribute effectively to a safer driving record.

In the discussion preceding these recommendations, we cited the results of studies which prove the efficacy of driver education in developing younger drivers less prone to have accidents and to violate the motor vehicle laws. No one seriously denies the logic or desirability of requiring driver

\* Legislation for recommendations starred will be carried in the Legislative Appendix.

education prior to issuing a license to the younger drivers. The objections that are raised are based only on the fact that driver education is not available to every potential applicant.

Our answer to these objections is that the State itself, in failing to relate driver education to licensing, is at least partially responsible for a lack of demand for and interest in driver education courses because it in effect is saying that driver education, although desirable, is not really necessary.

This proposal will, we are convinced, create a demand for driver education programs that will stimulate their development throughout the State's school system and see a closing of the gap between the number of students eligible to take both phases of driver education and the number actually taking them. The gap has closed substantially in the past two years. In 1963 at the time of the Virginia Advisory Legislative Council Report, only 14% of eligible students were receiving both phases of driver education. Our latest figures indicate 33% now take practice driving in addition to classroom instruction. To encourage and promote this growth, *we need now to tie education to licensing.* We have found in our investigation that the number of teachers qualified to teach driver education is increasing. In the past two years the number of teachers increased from 866 to 977 and 379 teachers added new endorsements to their certificates. It is estimated an added 385 teachers would be sufficient to offer the complete course to all eligible pupils.

The legislation we propose will, we believe, be the most direct way to equalize the supply of driver education courses with the demand for them without having to require every student to take the course whether or not he will seek a license at school age.

\* (4) Adult driver education and improvement courses should be provided under local board of education supervision and through adult education programs; and the courts should be authorized to send violators for retraining when appropriate courses are available.

Driver education courses should be afforded in each community through the adult education program. We believe that both basic driver education and driver improvement or defensive driving courses should be made available to drivers beyond school age who either have never had any driver education or need an improvement and refresher course.

This type of local program is especially pertinent today with the requirement under the Highway Safety Act for local highway safety programs and the specific federal standard issued in June calling for programs for adult driver training and retraining.

The development and expansion of adult driver education programs should be given top priority by the localities in submitting their highway safety programs to the Governor for approval. As explained above in the discussion of Recommendation (2) in the section on Governmental Organization, the legislative proposal requiring counties and cities to submit local highway safety programs will specify adult driver education be covered in such programs.

Through additional legislative action, the existing statutory authorization for traffic violator schools (§ 46.1-16.1) should be broadened to permit the courts to use available adult education programs in lieu of establishing a separate violator school when the adult course is suitable for retraining.

To the full extent possible, we would encourage the courts, police and school authorities to collaborate in the development and operation of adequate driver improvement programs as an adjunct to the public school system of adult driver education courses. In addition, localities should consider regional adult driver education courses where such may be practically and economically desirable.

- \* (5) Commercial driver education schools and courses should be regulated as to their business practices and certified as offering approved courses for licensing purposes.

We propose two specific steps with relation to commercial driver education schools to assure their proper functioning as part of the State's overall highway safety program.

*First*, these commercial schools should be regulated through the issuance of a license to do business by a Board for Commercial Driver Education Schools to function similarly to other regulatory boards in conjunction with the Department of Professional and Occupational Registration. In brief, those schools offering driver training for compensation will be required to register with the Board and file information as to the names of owners, financial resources, liability insurance and the like, to be licensed. The Board will be authorized to revoke or suspend the license of a school which engages in deceitful or fraudulent practices vis-a-vis students, the Board or the public.

*Second*, The Department of Education should be given authority to specify what constitutes an "approved driver education course" for purposes of licensing sixteen to eighteen-year-olds. Thus while all commercial schools should be licensed as to financial and business practices by the Board, not all licensed schools need apply to the Department to be included as an approved school for pre-eighteen-year-old licensing. The Department shall under the proposed legislation list as giving approved courses those schools offering a requisite number of hours of standard courses taught by properly qualified instructors. In determining the requisite qualifications for those giving behind-the-wheel instruction, the Department shall not, however, require a college degree. This requirement, although generally applicable in our public schools, should not be extended to commercial schools where academic background bears little relation to ability and experience in giving behind-the-wheel instruction.

We believe this two-fold approach will best serve to assure that all commercial schools are operating in a fair and professional manner and to permit those schools desiring to do so to qualify as "approved" schools for licensing purposes.

- \* (6) The same special requirements for hiring public school bus operators should be extended to the employment of persons to transport pupils for private schools.

Current law requires that public school officials shall not hire a bus driver unless he furnishes a doctor's certificate of physical fitness, a statement from the Division of Motor Vehicles respecting his driving record, references from two persons, and a special school bus driver's license and is between sixteen and 65.

We urge the passage of legislation to extend these provisions to all schools hiring individuals to transport pupils to and from school. The only exception which we believe is justified would be the case of contracts with common carriers who are themselves specially regulated.



- \* (7) School bus markings should be made mandatory and uniform to the extent possible.

Two provisions of the current law regulate the marking of and warning devices carried by school buses in a manner that is to some degree inconsistent. First, § 46.1-287 requires all buses used principally for transporting school children be equipped with a device designed to warn of stops and prescribed by the State Board of Education. Operating the bus without this device is a misdemeanor.

Second, § 46.1-190(f) provides that it will be reckless driving to pass any school bus painted yellow and marked with "School Bus, Stop, State Law" in black letters. Under the provision, the option lies with the school or owner whether to adopt the markings. Public schools do require the markings under State policy.

It is our recommendation that both features be made mandatory for all buses with the one change that private school buses and buses operating on contract be given the alternative of painting the entire bus yellow or carrying sixteen inch or higher yellow placards front and back which contain the required words in black lettering.

The end result of this revision will not affect the current State policy on public school buses but will extend it to private buses, which we believe should all be covered by the reckless driving statute.

- (8) In view of the serious need for trained traffic engineers within the State, we urge the State Council of Higher Education and our institutions of higher education to afford Virginia students traffic engineering courses as a regular and prominent part of the engineering curriculum.

The need for qualified traffic engineers within the State was reiterated by local government officials and those working in this field before the Commission on numerous occasions. The scarcity of traffic engineering courses within the State makes it especially difficult for Virginia to supply this growing need and makes the search for engineers a matter for stiff competition with other states as well as with federal agencies.

We hope it will be one function of the proposed Research, Evaluation and Traffic Accident Prevention Center to stimulate the engineering schools and students to work toward supplying this need. Currently, the University of Virginia offers courses in traffic flow theory, traffic engineering operations, and traffic measurements and characteristics; Virginia Polytechnic Institute has initiated plans for a traffic "accident investigation group"; and these schools and Virginia Military Institute offer courses relating to transportation and highway engineering. These programs are of real value and we urge their continued expansion.

## VII. MOTOR VEHICLE ADMINISTRATION

### A. Overall Goals

Motor vehicle administration in Virginia centers in the Division of Motor Vehicles which, more than any other State agency, has a direct, continuing influence on the driving public. The Division carries a major share of responsibility for traffic safety through its function as licensing agency, its authority respecting revocation, suspension and other disciplinary procedures affecting licensees and its role as the central depository for records concerning Virginia's drivers and vehicles.

It is the purpose of the recommendations which make up the bulk of this section of our report to strengthen our motor vehicle laws and the Division so that they will contribute even more effectively to the basic goal of a more responsible and better qualified driving public.

Our recommendations to reach this goal are of necessity varied and cover a number of distinct areas. Basically, they are devoted to (1) improvements in the licensing laws through special provisions for our younger drivers, proper classification of drivers and improved examinations; (2) development of a program of better supervision and control of licensed drivers through periodic reexamination and more active hearing procedures; (3) promotion of improved techniques to facilitate better administration of licensing and registration laws and to continue Virginia's leadership in the field of modern, centralized driver and vehicle records; and (4) adoption of an improved license plate system.

Within these broad headings, fall a large number of specific and practical proposals which we believe add up to a substantial program for assuring Virginia of an even more responsible and better qualified driving public.

## **B. Background**

Because of the varied subjects taken up in this section of the report we have supplied background information as it relates specifically to each group of recommendations and individual recommendations offered below.

## **C. Recommendations and Reasoning**

### **(1) Initial Issuance of Drivers' Licenses**

Emphasis on the *initial issuance* of licenses combines logic and necessity. To ensure only those drivers who are competent and able are privileged to drive, we must make full use of the authority to issue licenses. Every person deserves a license so long as he will be a competent driver and every person deserves the assurance that his fellow drivers will be similarly qualified and will not endanger him.

When Virginia began to issue licenses without benefit of the studies and experience now available it made sense to treat all drivers alike without regard to age, attitude or the class of vehicle he intended to drive.

It would be folly to continue this policy when all factors justifying it change and when Virginia has already deviated from it for the very reasons that dictate further changes today: first, we know more about our drivers and what makes a capable driver today; second, vehicles and the skills to operate them have changed dramatically; and third, we know enough to ask new questions and insist on new types of investigation.

Our recommendations reflect these new conditions which have long been developing and have required changes in the past. Each of our recommendations is, in fact, a part of Virginia's continuing effort to keep pace with growing traffic problems and proposes a further refinement of past efforts.

\*(1a) Drivers' licenses for persons up to age 21 should be issued on a provisional basis subject to suspension in the discretion of the court on conviction or a finding of not innocent for a traffic violation reportable to the Division of Motor Vehicles.

\* Legislation for recommendations starred will be carried in the Legislative Appendix.

We recommend the expansion in Virginia of the use of provisional licenses for young drivers up to age 21, rather than only up to eighteen. Jail sentences and fines frequently are not an appropriate punishment for this group, because the sentence is apt not to be imposed on younger drivers and the fine more often will be paid by their parents. The most meaningful deterrent to reckless and heedless driving on the part of such youngsters would be the loss of driving privileges.

The need for this step is demonstrated by statistics. Drivers age 24 and under are involved in 50% again as many accidents as they should be according to the number of such drivers in relation to the total driving public.

The imminent threat of suspension for violations should create needed pressure to keep young drivers educated as to proper, legal driving and alert to the need to be defensive drivers. The courts are in a position to bring home to such young drivers the responsibilities their licenses impose on them and can evaluate each case with the facts and witnesses at hand to determine the propriety of suspension. Proper driver training and judicial supervision are the best means to bring about an adjustment in the statistics and reduction in the number of accidents in Virginia.

At present, the Virginia law provides for special licensing treatment for applicants up to age eighteen. After age fifteen years and eight months, it is possible to obtain a temporary instruction permit which requires the driver be accompanied by a regularly licensed driver. From age sixteen to eighteen years, it is possible to obtain a license which is subject to revalidation every 12 months. The applicant has to meet several conditions to obtain such a license initially, including parental consent and the consent of a juvenile court judge if he has been found not innocent of any offense triable in such court. Moreover, the Division is required to cancel the license of such a youngster upon the request of his parents or guardian. The Division also examines the driving record of any such youngster applying for yearly revalidation and may then refuse to revalidate the license in its discretion.

Our proposal for provisional licenses for drivers up to the age of 21 does not affect these provisions governing younger drivers up to the age of eighteen; nor would it affect a prerequisite of driver education for such young applicants. We are simply recommending that all drivers under age 21 be issued a "provisional license" which will be subject to certain conditions. First, and most important, the holder of such a license will be subject to the pressure of knowing that in case he is convicted of any moving traffic violation the judge will have the authority to suspend his license for any period up to one year. It is not expected that this discretionary power will be used to the maximum in every case by the courts. The loss of a license for only a month can be a great deterrent to future violations.

Second, the courts will have added discretion to require reexamination of provisional license holders either as a substitute for or as a supplement to suspending their licenses.

Finally, each operator will be reexamined at age 21 to obtain an ordinary operator's or chauffeur's license.

It is our conviction that this expanded emphasis on younger drivers by increasing the role of the courts in supervising their performance as drivers will prove a valuable supplement to the existing provisions covering only those drivers under eighteen.

The concept of provisional licenses has been tested in other states as well as in Virginia for its drivers up to eighteen among which are Colorado,

Nebraska, Wisconsin, Connecticut, Indiana, Montana, New York, Ohio and Vermont.

\*(1b) The State laws classifying operators' licenses according to the vehicles they intend to operate should be further refined to treat motorcycles as a separate class for licensing and examining purposes; additional provisions should be enacted to ensure maximum safety in the operation of motorcycles such as requiring the use of helmets and safety glasses.

Virginia now requires that school bus drivers pass a special examination to qualify to drive a school bus and that the operators of buses and certain trucks demonstrate their ability to handle such equipment to obtain the special endorsement on their licenses necessary to operate such vehicles. The latter requirement was adopted in 1964 following recommendations of the Virginia Advisory Legislative Council. In addition, Virginia already has special chauffeurs' licensing provisions covering taxis and public or common carriers.

Today further steps are needed to cover motorcycles, a very fast growing and dangerous category of motor vehicle. The number of motorcycle registrations in Virginia increased 112 percent from 1961 to 1965. By far the greatest increase, almost 90 percent, occurred between 1964 and 1965 when registrations leaped from 7,886 to 13,732. All indications point to continued increases.

While registrations grow, so do accidents, injuries and deaths, leading a spokesman for the National Safety Council to warn of a "major epidemic" facing traffic safety officials in dealing with motorcycles.

We cannot say that Virginia's fatality rates are higher for motorcycles than other vehicles, because our statistics are not complete, but we are very concerned because national estimates conclude that fatalities per 100,000 motorcycles double those for other vehicles.

Because of the increasing number of motorcycles, the likelihood that there is a disproportionate number of fatalities and the fact that being able to operate a car has no relation to operation of a motorcycle, we recommend both special examinations and license endorsements for motorcycle operators whether or not they are otherwise licensed to operate a car, bus, etc. Nor should a license endorsed to permit operation of a motorcycle be considered a license to operate any other class of vehicle unless it is specifically so stated thereon.

Under current law, the actual written examination for all license applicants is the same except with respect to school bus driver applicants. We recommend that a special examination be developed by the Division to test the knowledge of applicants for a license specially endorsed for motorcycle operation. Not only the practical examination, but the written examination should be keyed to this special type of vehicle and the specialized knowledge required to operate it.

In addition, we recommend that both motorcyclists and their passengers be required to use (1) approved helmets and (2) approved safety glasses, goggles, face shields or windshields to combat the fact developed in studies that 50% of motorcycle accidents result in head injuries. These requirements are easily enforced, unlike seat belt measures, since cyclists and passengers are always visible. Standards for helmets have been developed by the American Standards Association (ASA Z90.1-1966, Standards for Protective Headgear for Vehicular Users). Special equipment for motorcycles should include a seat and footrest for any passenger.

These requirements concerning safety equipment for motorcyclists, their passengers and motorcycles should be statutory and as is the case for other types of vehicle safety equipment should be of specific makes and designs approved by the Superintendent of State Police.

The federal highway safety standards cover these same requirements and two already incorporated in our law: first, that of a rear view mirror (see, § 46.1-289) and second, that of periodic inspection (part of our general inspection program).

The total effect of these existing provisions and our recommendation should be to offer a reasonable and needed amount of protection to the most vulnerable type of motor vehicle operator on our highways today.

## (2) Licensed driver control

Virginia has not made as much progress in the field of *licensed driver control* as it has in the area of initial licensing. Our procedures for renewal are very minimal and provide the Division with very little basis for judging if the driver has kept pace with changing rules of the road and road construction or if he still can pass the visual tests for a license applicant.

The recommendations which follow should add up to real progress by substituting for automatic renewal by mail, a careful program for keeping drivers up to the qualifications needed for obtaining an initial license. No one can dispute that driving conditions and the skills needed to drive grow more demanding every day. But our licensing laws assume just the opposite. They assume that conditions are no more demanding today than perhaps thirty years ago when a license was first obtained and that a driver who has aged thirty years automatically keeps up with changes in laws and conditions and never loses any of his skills or qualifications. This assumption should be corrected.

At periodic intervals, all drivers should be reexamined to test their knowledge of changing laws, road conditions and rules of the road and to determine whether they continue to meet the visual standards for licensed drivers; and to finance this and other proposed programs, the fees for duplicate, original and renewed operators' and chauffeurs' licenses should be revised.

Approximately 2,300,000 drivers are licensed in Virginia at the present time. Most of these drivers have passed an initial examination to obtain licenses. Under present law, most of these drivers will not be examined again during the course of their lifetime.

Virginia stands with the vast majority of states which provide for the renewal of licenses at periodic intervals. In Virginia, licenses are renewed every three years in the month of birth of the licensee (§ 46.1-380). Under this provision, the Division of Motor Vehicles can in its discretion reexamine any licensee prior to renewal of the license.

In contrast to this discretionary reexamination, § 46.1-383 requires that the Division reexamine certain licensees at any time that the Division receives a record that such licensee has been convicted of two moving traffic violations within a one-year period or has been involved as a driver in two accidents involving personal injury or property damage exceeding \$100. Under this section the Division may also require a reexamination when it has good cause to believe a licensee is incompetent or unqualified.

Under the existing statutory provisions, the Division, in practice, requires reexamination only once the driver has, in fact, demonstrated his danger to others on the highway through a bad accident or bad violation record.

Leaving aside for the moment the requirements of the Highway Safety Act standards, it is our conviction that all drivers ought to be reexamined periodically for the following reasons:

(a) Nothing in the current law enables the Division to act in anticipation of future accidents and violations. The present statutory scheme is designed only to eliminate those drivers who have demonstrated their potential for harm. This is too limited an approach, which accomplishes too little, too late.

(b) The requisites for a good driver undergo constant change. Rules of the road and driving conditions, such as the introduction of high-speed Interstate highways, change every year. Drivers themselves do not automatically become aware of these changes and should be educated or required to educate themselves of changes in statutes, rules of the road and road conditions. Moreover, the physical condition and visual acuity of drivers can deteriorate with age. The findings of any initial examination, no matter how well drawn up, cannot hold true in light of these changed circumstances.

(c) Periodic reexamination serves both to keep drivers aware of changing laws by encouraging them to study and review the rules of the road and to reveal those drivers whose vision has lessened and who may have developed some type of handicap which would require a limited license.

Initially, reexamination should be required on a periodic and increasingly frequent basis at nine, six and finally three-year intervals after age 36. Currently licenses are renewable every three years in the applicant's birth month. Licensees should be reexamined in their birth month in their usual renewal year closest to their thirtieth and thirty-sixth birthdays and each renewal time thereafter.

For example, John Doe obtains a provisional license at seventeen years of age; he is reexamined at age 21 when he gets his first regular operator's license; he is reexamined again after nine years at age 30; again after six years at age 36; again after three years at age 39; and thereafter at three-year intervals or each regular renewal year.

This reexamination schedule should be stepped up by 1974 to cover all drivers at every renewal period.

We do know that changed conditions require reexamination and we reject an arbitrary age for reexamination of older people after age 60, for example. Our recommendation is directed to cover all licensees because the statistics demonstrate, if anything, that older drivers are no more dangerous than younger drivers and should not be singled out unfavorably. *The value of reexamination applies to all drivers.*

Reexamination of these drivers should be designed to determine the following:

- (a) Whether they are aware of the current rules of the road.
- (b) Whether they are aware of the meaning of current road signs and how to drive on modern highways.
- (c) Whether they have the visual acuity necessary to drive safely.

The first two of these categories can be determined through a written examination. The third can be determined through the administration of the standard visual test recommended below. No road test is required to learn this much.

We do not at this time recommend any physical examination of a driver either to obtain an initial license or renewal thereof. Knowledge and research at this time are insufficient to devise or require physical examinations for license applicants. The main physical defect which is apt to appear with age is a lack of visual acuity. This lends itself to simple and direct testing by the Division itself. The portion of the report which follows on Health and Medical Aspects of Licensing relates closely to this and other recommendations and will cover the specific question of visual standards for licensing. To date at least fifteen states require some re-examination of renewal applicants. Pennsylvania's reexamination program which includes physical reexaminations has been established administratively. Statutes in Alaska, Illinois, Maine and New Hampshire call for reexamination of persons over a certain age. Colorado, Indiana, Iowa, Missouri, Montana, Nevada, New York, North Carolina and South Dakota have varying provisions covering reexamination particularly to test visual acuity.

Administratively, there will of necessity be added costs in the periodic reexamination program and the visual testing part of this program. Cost estimates have been prepared by the Division of Motor Vehicles based on periodic reexamination of 750,000 drivers each year. It should be borne in mind that these figures are high for the first phase of the reexamination program and that they become completely relevant only after 1974 when all drivers will be reexamined each three-year interval.

These cost estimates, which are set forth below, include the cost of establishing an appointment procedure so that applicants for renewal can be scheduled ahead of time to avoid long waiting periods. The totals of \$338,690 and \$279,530 for added costs attributable to periodic visual re-

DIVISION OF MOTOR VEHICLES  
ESTIMATED VISUAL RE-EXAMINATION COSTS

1st Year

	Bureau of Operators' License 154-05	Examiners 154-09	Data Processing 154-11	GRAND TOTAL
Personal Service .....	\$25,055.00	\$132,480.00	\$ 7,945.00	\$165,480.00
Contractual Services .....		38,245.00		38,245.00
Supplies .....		41,940.00	1,170.00	43,110.00
Current Charges and Obligations .....			3,600.00	3,600.00
Pensions and Retirement .....	1,715.00	9,055.00	545.00	11,315.00
Total Reoccurring Expense .....	\$26,770.00	\$221,720.00	\$13,260.00	\$261,750.00
Additional Equipment .....	1,220.00	72,300.00	3,420.00	76,940.00
Grand Total .....	\$27,990.00	\$294,020.00	\$16,680.00	\$338,690.00

DIVISION OF MOTOR VEHICLES  
ESTIMATED VISUAL RE-EXAMINATION COSTS

2nd Year

	Bureau of Operators' License 154-05	Examiners 154-09	Data Processing 154-11	GRAND TOTAL
Personal Service	\$26,210.00	\$138,240.00	\$ 8,545.00	\$172,995.00
Contractual Services		39,985.00		39,985.00
Supplies .....		45,870.00	965.00	46,835.00
Current Charges and Obligations .....			3,960.00	3,960.00
Pensions and Retirement .....	1,815.00	9,585.00	590.00	11,990.00
Total Reoccurring Expense .....	\$28,025.00	\$233,680.00	\$14,060.00	\$275,765.00
Additional Equipment .....			3,765.00	3,765.00
Grand Total .....	\$28,025.00	\$233,680.00	\$17,825.00	\$279,530.00

examination should be increased, according to the Division, by 20 percent to reflect the total estimated costs of periodic written and visual reexamination for 750,000 renewal applicants each year:

First year: \$406,428

Second year: \$335,436

Thus Virginians will be investing some \$335,000 in this program on a continuing annual basis or less than 45 cents per renewal applicant. This cost can be viewed as an expenditure of \$1.35 for each individual who can be expected to be found to be driving with inadequate vision or improper glasses, if the testing results of Pennsylvania (where one-third of those tested were found to have inadequate vision and were required to wear corrective glasses) hold true for Virginia.

To finance this program and the costs of changing to plastic operators' and chauffeurs' licenses and to put the various charges for duplicate, original and renewed operators' and chauffeurs' licenses on a more realistic basis, we propose the following changes:

- (1) increase the fee for duplicating lost or destroyed operators' and chauffeurs' licenses from 25 cents to \$1—additional anticipated annual revenue of \$26,111;
- (2) increase the fee for original operators' or chauffeurs' licenses from \$6 to \$7 and from \$3 to \$4, respectively—additional anticipated annual revenue of \$178,970;
- (3) increase the fee for renewal of operators' and chauffeurs' licenses from \$6 to \$6.50 and from \$3 to \$3.50, respectively—anticipated additional annual revenue of \$377,549.

The total anticipated additional annual revenue of \$582,630 generated by these proposals is, we believe, a conservative estimate because of the increase which can be expected in license applications generally. One additional amount will increase this total by approximately \$13,500 to \$596,130. This is the amount we anticipate will accrue from the special endorsement which will be required to operate a motorcycle. The original and renewal



fees for a license endorsed solely for operation of a motorcycle will be the same as for a regular operator's license. If an applicant wants both a regular operator's license and the special endorsement to operate a motorcycle, he will be taking two separate written examinations and road tests. In such cases, we do not believe, however, that he should be required to pay two full \$7 fees for the original combination license or two \$6.50 fees for its renewal, but he should pay a combination fee of \$10 or \$9, for the original or its renewal respectively, which would be a fair charge for what is in essence two licenses. If approximately one-third of the motorcycle registrants or 4,500 individuals want the regular operator's license with the special endorsement to operate a motorcycle, the added revenue should be \$13,500. This increased revenue should continue in future years through added applications for and renewals of the combination license.

We believe these changes in the fees are fair and put the fees in proper relation to each other. The present 25 cent charge for replacing lost or destroyed licenses is extremely low and cannot cover the expenses of the Division in processing the request, duplicating the license and mailing it back. The original license fee involves the added expense of a road test and additional personnel and time for the Division and we think a \$1 increase here, as opposed to a 50 cent increase for renewal of licenses, is a fair adjustment in light of the cost of the road test.

The total anticipated added revenue of \$596,130 will more than cover the full expense of the reexamination program even using the maximum figures of \$406,428 for the first year and \$335,436 for the ensuing years of reexamination of 750,000 renewal applicants. Since we are phasing into the reexamination program and will be reexamining less than 750,000 until 1974, these cost figures should be reduced for the coming biennium by one-fifth, we estimate, of the recurring cost, or \$67,087, to \$339,341 and \$268,349 for years one and two, respectively. This will leave a balance of \$256,789 and \$327,781 to be applied to the cost of the plastic operator's license to be discussed later in this section of the report.

\*(2b) All persons applying for license renewal should be required to appear personally to further the likelihood of detecting visible disabilities, and penalties to deter the renewing of a license for another should be strengthened.

An additional change in renewal procedures is recommended here to increase the effectiveness of routine renewal procedures. During the interim period before 1974 when all renewal applicants will begin being reexamined, we recommend all applicants be required to appear personally for renewal. Personal appearances will permit Division personnel to observe visible defects and handicaps which might warrant a restricted license, will discourage those who know they should not be driving from applying for renewal simply as a matter of routine mailed application, will permit distribution of educational materials, and will reduce false applications.

With respect to both periodic reexamination and personal appearance, we note that no one should have to travel more than 20 to 25 miles for their new license to one of the 140 or more examination centers in the State.

We also are including a legislative proposal which will require either no issuance of a license to, or revocation of the license of, any person found to have taken an examination or appeared for renewal on behalf of another, for a period of ten years.

- \* (2c) Existing hearing provisions which constitute a mechanism for dealing with habitual violators should be strengthened and put to more effective use through employment of additional personnel.

Within the topic of licensed driver control, a major subheading has to be the handling of drivers who have demonstrated their disregard for law or ineptitude in driving through violation and accident records. There must be a mechanism to deal with this broad range of drivers on an individual basis.

We believe that this mechanism is already part of our motor vehicle laws and potentially useful in the vast majority of cases involving habitually reckless drivers (with the exception of the most serious category of habitual and blatant offenders to be discussed in a separate recommendation carried in the section of the report on Enforcement).

Existing hearing provisions are set out in §§ 46.1-430 through 46.1-437 and provide for revocation or suspension of a license, in brief, as follows:

- (A) *Up to one year* if the licensee
  - “(1) Has, by reckless or unlawful operation of a motor vehicle, caused or contributed to an accident resulting in death or injury to any other person or in serious property damage,
  - (2) Is incompetent to drive a motor vehicle,
  - (3) Is afflicted with mental or physical infirmities or disabilities rendering it unsafe for him to drive a motor vehicle upon the highways,
  - (4) Is habitually a reckless or negligent driver of a motor vehicle,
  - (5) Has committed a serious violation of the motor vehicle laws of this State,
  - (6) Is an habitual drunkard or
  - (7) Is addicted to the use of drugs.” (§ 46.1-430).
- (B) *Up to five years* if the Commissioner finds that the violation record of the licensee demonstrates reasonable grounds to make such action “necessary for the safety of the public” (§ 46.1-436).

These sections cover a very wide range of driver behavior and give the Commissioner and such hearing officers as he may appoint an opportunity to deal with both habitual and potentially habitual violators and reckless drivers.

Today only one hearing officer is employed by the Division to take action under these provisions.

It is our recommendation that additional hearing officers be employed by the Division of Motor Vehicles so that these provisions may be activated to round out our program of licensed driver control and that the statute be amended to provide a minimum of four hearing officers to implement these provisions.

To this end we support the Division’s preliminary budget proposal for the 1968-1970 biennium which is

1968-69.....	\$ 97,687.....	3 hearing officers, 9 clerks
1969-70.....	\$159,970.....	5 hearing officers, 15 clerks.

This increase to four officers and then to six (including the present officer) should permit a systematic application of these provisions.

The computer system now installed and being programmed at the Division should materially facilitate the hearing officers in a methodical review of licensed driver records. For purposes of strengthening the hearing procedures, we propose legislation to require that each record should be reviewed upon receipt of any new conviction and the Division should report annually to the Governor and General Assembly on action being taken under the hearing provisions.

We should add that this Commission and its committee studying this subject gave very careful thought to the adoption of a point system. We feel there are definite advantages which such a system can offer; for example, a point system can be refined to permit more preventive action through a step approach beginning with warning letters, including conferences, reexamination and reschooling and concluding with revocation penalties.

Several factors persuaded us the implementation of existing law constitutes the sounder approach at least for the present:

*First*, Virginia's motor vehicle laws, in effect, already contain a point system spelled out in the various and graduated penalties (including re-examination) for specific offenses and for first, second and subsequent offenses which is a strict system as measured against the point systems of other states.

*Second*, there is a useful flexibility built into existing law which would be lost under a rigid point system—i.e. judges have discretion with respect to various offenses the penalties for which may range from revocation for any period up to a maximum as is the case in the hearing provisions administered by the Division.

*Third*, our recommendations, such as those for reexamination, the issuance of a new type of operator's license and further use of Division records, will involve considerable administrative work for the Division making the introduction of a point system seem an especially formidable task. The effectiveness of a point system depends in great measure on smooth administration, and with these other innovations and the still to be completed programming of the Division's computer system, we believe the time is inauspicious for the introduction of a point system.

### (3) Administrative steps

The recommendations which follow involve procedural and practical matters and are designed to promote effective administration of our basic motor vehicle laws.

\* (3a) Current pasteboard drivers' licenses should be replaced with plastic cards designed to complement the computers being installed at the Division of Motor Vehicles; a color photograph of the licensee should appear on his operator's or chauffeur's license; and the Social Security number should be utilized as an identification number for individual licensing purposes in looking towards nationwide records and research systems.

At the present time, the Division is in the process of converting its records from regular filing to a computer or automated system of record keeping. We believe the conversion to automated records means Virginia

has moved far ahead in the field of motor vehicle administration. The data process system should prove itself of extreme value to enforcement and to the Division itself in general operations.

In view of the increasing number of drivers, the conversion to a data processing system can be seen as an absolute necessity. The 1,000,000 Virginia drivers of 1950 had more than doubled to 2,250,000 drivers by the end of 1966.

During the year 1966 the Division issued the following licenses:

Original operators .....	163,802
Renewal operators .....	675,275
Original chauffeurs .....	15,168
Renewal chauffeurs .....	77,823
Duplicates .....	34,815
Reissues .....	40,127
 Total issue .....	 1,007,010

It is our feeling that everything, which can be, should be done to encourage the effective functioning of the State's central record system in view of the tremendous demands to be placed on it.

We are recommending the use of plastic cards rather than the current pasteboard licenses for motor vehicle operators and chauffeurs to assure the smooth functioning of the automated record system at the Division in terms of the important goals of improved enforcement and highway safety. These cards can carry information on the name of the driver, license number, date of issuance and expiration, etc. The use of such cards along with imprinters designed to transfer the information from these cards directly to traffic warrants, accident reports, etc., will ensure that the correct name and accurate information on the driver is sent in to the Division. There has been some criticism before this Commission that records are not found within the system currently because the driver's name is sent in to the Division in a form different than that kept in the Division's records. The plastic card-imprinter system, now so commonplace in our stores, will advance the solution of this problem.

The addition of a color photograph of the licensee to his operator's or chauffeur's license should increase the value of the license as identification for enforcement personnel and others immeasurably, and should make tampering with licenses virtually impossible. Today a licensee can without difficulty and for 25 cents order a duplicate of his license from the Division and give it to any friend of the same general description. Moreover, it is relatively easy to alter pasteboard licenses. This type of fraud and misuse of licenses is extremely difficult to prevent unless the license itself is improved. A color photograph on an embossed laminated license presents the most complete and soundest solution to this problem. Numerous states currently use the plastic embossed license (Idaho, Maine, Minnesota, Mississippi, Ohio, South Dakota and West Virginia); numerous states require the licensee's color photograph on the license (including Arizona, Colorado, Georgia, Idaho, Michigan, New Mexico, South Carolina, Utah and Wyoming). Idaho and Utah currently use a combination embossed license with photograph. Ohio is adding the picture to its embossed plastic license. This combination of embossed card with dated color photograph will, we believe, be the most advantageous for Virginia.

The expense per license varies depending on the number issued and estimates available to the Commission range from 23 cents to 44 cents per license for the embossed plastic license with color photograph. The median

figure would result in an annual cost to Virginia of approximately \$330,000. This would be an annual cost for the issuance of approximately 1,000,000 licenses each year covering new and renewed licenses.

We earlier estimated increased revenues of \$596,130 through recommended changes in the fees for operators' and chauffeurs' licenses which would pay for the reexamination program and leave a balance of \$256,789 in 1968-69 and \$327,781 in 1969-70 to be applied to the plastic license program. A lesser amount is available in 1968-69 because of capital outlay expenses for the reexamination program. There should be no capital outlay expenditures involved in the plastic license program, however, since it is our understanding that this program can be contracted out on a competitive bid basis to firms which will supply the equipment and charge for the finished product. The remainder of the cost of the plastic license program, which we estimate at \$73,211 for 1968-69 and \$2,219 for 1969-70, can be covered by the funds raised as suggested below in this section through an increase in the motor vehicle registration fees to support this and other aspects of the highway safety program.

Improved records and identification, the elimination of fraud and misuse of licenses and the issuance of durable, attractive operators' and chauffeurs' licenses add up to valuable improvements in our licensing system.

For the same reasons we need a new type of license to promote accuracy in records and better enforcement, so do we need a simpler, basic identification number for licensees. The current long operator's license number is designed for manual filing purposes. The reasons for its use will be obsolete once the data processing equipment is fully installed.

In view of this, we recommend the addition of the licensee's Social Security number as an identification number on his license which can eventually replace the current number. The following reasons support this recommendation: first, the Social Security number is, on the average, six digits shorter than the current license number and, therefore, easier to handle, and second, the Social Security number is issued nationally and will fit more readily into the exchange of information nationally for statistical, research and enforcement purposes. We also include provision for indicating the driver's city or county of residence on the license if the address does not reflect it.

\*(3b) Imprinters should be issued to enforcement officers so that the information on plastic licenses can be transferred with complete accuracy to a multiform ticket, one copy of which can be sent to the Division by the courts with conviction information.

An integral part of the change-over to plastic licenses is the furnishing of imprinters to transfer information from plastic cards to records, summonses and tickets with absolute accuracy. This simple operation, in use throughout the Commonwealth's stores and filling stations, should substantially simplify the work of the Division and enforcement personnel.

The cost of these devices varies depending on the quantity ordered and quality of the imprinter. One thousand would be enough to supply the State Police and keep a necessary replacement stock. Localities should pay for their own, but all imprinters should be issued by the State Police to assure quantity purchases and uniform quality.

The recommendation in the Enforcement section for a uniform, multi-copy traffic ticket and summons which can be used for State and local

charges will, in conjunction with these proposals for a plastic card and the imprinter, greatly simplify the processing of record information from the officer, through the courts and back to the Division.

\*(3c) Virginia should adopt the Driver License Compact.

As the demand for further exchange of information among states increases and in view of the increasing amount of cross-country travel demonstrated by the substantial proportion of drivers involved in Virginia accidents who are nonresidents or residents with foreign licenses (12%), we believe Virginia should join the 20 states currently participating in the Compact.

We quote the 1966 Status Report of the American Association of Motor Vehicle Administrators concerning the rationale for and effect of joining the Compact:

“The state is substantially powerless to deal with drivers it has licensed who accumulate a record of serious moving traffic violations in other jurisdictions unless a system has been set up to provide information on what those drivers do in other states. This Compact sets up an orderly system for providing this information.

“Furthermore, it effects the one-license concept which helps keep drivers who develop bad driving records, including suspension and revocation, from obtaining licenses from several states and then pro-rating their driving record, or, if under suspension or revocation, from displaying a license certificate from a jurisdiction other than the one which has issued the suspension order. . . .

“The agreement involves three major commitments:

1. Exchange of certain traffic conviction reports of out-of-state drivers with the home-state licensing agency.
2. Action by the home state upon its own licensed drivers to give the same effect to conduct reported on out-of-state violations as if the violation had occurred within its own borders.
3. Use of the one-license concept whereby the state requires surrender of an out-of-state driver's license prior to issuance of a license within its own jurisdiction. . . .

“Member states must report convictions of negligent homicide, driving under the influence of liquor or drugs affecting driving ability, hit-and-run driving involving death or personal injury, and any felony in whose commission a motor vehicle is used. While speeding convictions are not required, any moving violation may be reported.”

\*(3d) The Division should be notified routinely by welfare and tax officials of all persons receiving welfare or exemptions for the blind or nearly blind to ensure they are not licensed drivers.

This simple and direct step of requiring State welfare and tax agencies to report those receiving aid or exemptions for the blind and nearly blind is self-explanatory. Even though few of such licensees probably drive, these licenses should not be left outstanding.

(3e) Training programs for Division employees who examine license applicants should be strengthened and improved, and salaries for Division employees should be reviewed and upgraded.

A real need exists for additional training for the license applicant examiners, especially since a program of periodic reexamination will increase substantially the work and number of examiners.

The National Safety Council Inventory for 1966 brought out that Virginia meets minimum criteria respecting recruit training and in-service training for examiners by affording the minimum twelve days of recruit training and four days (as compared to a three-day minimum) of in-service training. The top 10% of states give 38 days and seven days of training, respectively, in these categories.

We are concerned both with the quantity and quality of training.

In the manual of the American Association of Motor Vehicle Administrators for "Driver License Examinations," the Association outlines a program for examiner training. The training for recruits should be preceded by ". . . intelligence and aptitude tests, personal investigation, interview by chief driver examiner, interview by employment board, physical examination, drive test . . ." and other tests required by the State or the Division.

The actual training should involve at least 100 hours of class instruction conducted by experienced examiners and specialists from other agencies, public and private. Their list of topics to be covered includes, but is not limited to, the following:

- History of driver licensing, national and local
- The purpose of driver licensing
- Driver examining as a profession
- Examiner duties and responsibilities
- Examiner conduct, behavior and appearance
- Department organization and policies
- Department forms and reports
- General traffic safety
- Driver education
- Safety and financial responsibility laws
- Motor vehicle registration and inspection
- Accident reporting and records
- Motor vehicle laws
- Driver license laws
- Legal aspects of driver licensing
- Vision testing
- Road rules test
- Road sign tests
- Giving and scoring drive tests
- Laying out driving test routes
- Restrictions
- Handling illiterate and foreign speaking applicants
- Driver improvement
- Examining stations
- Schedules and itineraries
- Geography of the state, examining districts and stations
- Public relations including some public speaking
- Passing and rejecting applicants
- Handling complaints
- Renewal and duplicate licenses
- Driver manual
- Examiner manual

With respect to in-service training, the Association recommends one full week of in-service instruction and training in addition to periodic

meetings with the examiner supervisor as the ideal. They conclude that the "value of such instruction has been reflected in better examining performance, improved examiner morale and more reliable examining records..."

In addition to the training of examiners, much more work is needed in the field of training the supervisors of such examiners. Since 1962, there has been no actual training for Division supervisors, and we urge their training through the AAMVA's annual approved training courses. This point is vital to assure the type of continuous in-service training of examiners which only their supervisors can provide.

An additional problem related to examiner training is the proper establishment of a driver improvement and control section in the Division which must also be trained at both the recruit and in-service stages. The AAMVA has prepared a full outline and program which covers both the organization and training of a Driver Improvement Section and which should prove of assistance and interest to an expanded staff of hearing officers.

The increasing responsibilities of the Division for licensed driver control and systematic record keeping, brought about by the growth in the number of drivers, the impact of the Highway Safety Act and the recommendations contained in this report, warrant careful consideration being given to increasing the salaries of Division employees. These growing responsibilities call for additional compensation just as they necessitate additional training.

We would urge that the salaries of all employees of the Division from Division branch office managers to driver license examiners be reviewed and adjusted to reflect these increased responsibilities.

#### (4) License Plates

Motor vehicle license plates are a very specialized feature of over-all motor vehicle administration, but we believe the following recommendations represent ways to use license plates more tellingly in the State's program to promote traffic safety along with the traditional uses of such plates for revenue and identification purposes.

\*(4a) License plates should be coated with reflectorizing material which has been proved to be a factor in reducing nighttime accidents and which aids enforcement officials in identifying license numbers.

We endorse the use of reflectorized license plates in Virginia and recommend the adoption of this requirement in our statutes.

To date, 31 states, according to the American Association of Motor Vehicle Administrators, will use reflectorized plates in 1967 in varied color combinations with white the most popular single color.

Available studies give convincing evidence that the number of rear-end collisions can be substantially reduced by reflectorized plates and that they are especially helpful in reducing rear-end accidents involving parked cars.

One study conducted by the Maine State Police showed a substantial reduction in rural accidents both occurring after dark and involving parked vehicles. For example, from 1945-1949 and prior to the adoption of reflectorized plates, rural accidents after dark accounted for 40.9% of total rural accidents; from 1950-1963 and after reflectorized plates were



adopted; rural after dark accidents accounted for only 34.3% of the rural total. Similarly, before reflectorization 9% of rural accidents after dark involved parked cars, and after reflectorization only 1.3% of such after dark accidents involved parked cars.

The Maine State Police concluded that

“For the five years immediately prior to our using reflectorized registration plates, we realized an annual average of 87 rural night accidents involving parked vehicles. During the fourteen years following the use of these plates, this annual average fell to 37, a reduction of 50 annually, or—58%.

“Rural fatal accidents involving parked, or disabled, vehicles, occurring in the hours of darkness, decreased from 3.8 fatalities annually prior to the use of reflectorized plates, to 1.6 fatalities annually following the use of these plates, a reduction of 2.2 fatalities annually, or—58%.”

One carefully controlled study conducted in Polk County, Iowa, by the Iowa Commissioner of Public Safety and based on the use of reflectorized plates by 60,000 drivers and standard plates by 40,000 drivers for one year, demonstrated that if all 100,000 vehicles had used reflectorized plates nighttime rear-end accidents would have been substantially reduced.

A summary of their study concludes:

“Analysis of nighttime vehicle accidents in Polk County, Iowa, indicates a positive relationship between reflective license plates and accident reduction. In 1959, Polk County had 99,831 vehicle registrations of which 60,000, or 60.1% had reflective plates.

“Considering only nighttime rear-end collisions involving parked vehicles of Polk County residents, the proportion of accidents involving cars with reflective plates should have been the same as the 60% to 40% ratio of reflective to non-reflective vehicles. However, 76.7% of parked cars struck at night had nonreflective plates, while only 23.3% of this category carried reflective plates.

“During the one-year study period, 326 parked cars were involved in nighttime rear-end accidents. Without reflective plates, the number would have increased to 622 or 91%. If all Polk County vehicles had been reflectorized, the number would have decreased to 130, a reduction of 60%, or a projected total reduction of 492 with all plates reflectorized versus non reflectorized.

“Relating these figures to cost-per-accident studies from Massachusetts, Utah, and the National Safety Council, the savings with all plates reflectorized would have ranged between \$190,000 and \$397,000 at a reflectorization cost of \$25,000.”

The reasons for using reflectorized plates are not limited to accident prevention, but extend to improved enforcement as well. A California State Highway Patrol study in 1963 compared legibility and durability of reflectorized and standard plates in laboratory and field tests and found: first, little difference in wearing qualities so that both can be expected to last equally; second, daylight visibility was the same, but nighttime legibility and visibility of reflectorized plates was greater in all combinations of circumstances; and third, that even with beaded, rough surface reflectorization of numerals only, the reflectorized plates were, after dirt and road oil accumulation, as legible as standard plates in daylight and reflected light. Thus, the increased visibility and legibility of even the cheapest reflective material (two cents per plate) has proved itself to be an aid to enforcement.

We requested the Highway Research Council to study the durability, visibility and legibility of reflectorized plates. The Council ran a series of tests on a combination of four plates, one painted plate and one clean, one dirty and one damaged reflectorized plates. The Council reported to the Commission, showed slides demonstrating their tests, and gave a nighttime demonstration. The results showed that even when reflectance value is reduced 50% by dirt or damage, the reflectorized plate is considerably brighter and more visible than a painted plate. Normal cleaning quickly restores much of the original reflectance value especially in the case of smooth surface reflective coatings. Exposure studies reviewed by the Council reenforced their own test conclusions and pointed out that bent and damaged plates retain daytime legibility and nighttime brightness and legibility even after one or two years. Finally, the number of plates apt to be seriously damaged is small in proportion to the total number of plates and certainly no larger with reflectorized than with painted plates.

These studies and the nighttime demonstration convinced us that reflective plates will be of value (1) in reducing nighttime rear-end collisions, (2) in reducing nighttime accidents involving stopped vehicles, (3) in reducing accidents where one headlight on an approaching vehicle is out, and (4) as an aid to enforcement officials.

The cost per plate for reflectorization varies from two cents per plate for the reflective liquid used in the California tests to as high as 28 cents per plate for a reflective plastic sheeting designed to last over several years. Thus the length of time plates will be used and the amount of reflection desired affect price.

It is our recommendation that a high quality smooth reflective surface be applied to Virginia license plates. These plates can be made in our prison facilities and, in fact, the Penitentiary Industrial Department has, by changing from flat sheet to coil steel, recently taken many of the steps to adapt its equipment to enable it to reflectorize plates.

The highest cost estimate which we have seen of 28 cents per plate was that provided by the Industrial Department of the Division of Corrections of the Department of Welfare and Institutions which produces license plates. This is their estimate for high quality smooth reflective sheeting designed to be used over a period of several years. The 28 cent per plate estimate would mean a total cost of \$1,400,000 for 5,000,000 plates the first year in a five-year plate program or annual amortized cost of \$280,000 for a five-year period. While there are only 2,100,000 registered vehicles in Virginia, we use the 2,500,000 vehicle or 5,000,000 plate figures to give a proper allowance for replacements and growth. Industrial Department estimates provided to the Commission were based on the 5,000,000 plate basis.

The financing of this program and the savings to be gained by changing to semipermanent plates will be discussed in the following recommendation. At this point we would simply note that *considering the economic loss of \$200,000,000 which Virginia suffered in 1966 as a result of traffic crashes, if reflective plates brought about a reduction in accidents of only .0014% a year, that is less than one-seventh of one per cent a year, a \$280,000 annual amortized cost of reflectorization will have been paid.* Each year, we lose through traffic accidents an amount which exceeds the amount raised by the State individual income tax and we should view any reasonable expenditure for traffic safety against this tremendous economic loss.

\*(4b) Semipermanent, rather than annual, license plates should be issued in Virginia to reduce expenses and to defray the cost of reflectorizing license plates.

We are recommending that license plates be issued in Virginia on a semipermanent basis so that we can take advantage of the substantial cost savings generated to finance the cost of reflectorizing license plates and to introduce a sound safety measure. We emphasize that reflective plates will, we are convinced, pay for themselves by reducing the economic loss which results from traffic crashes, but we offer this proposal as an immediate concrete way to pay for reflectorization and modernize our license plate program.

The reason that numerous states have been changing to semipermanent plates is reduced cost. According to "1967 License Plate Information" provided by the American Association of Motor Vehicle Administrators, Alaska, Arizona, California, Connecticut, Delaware, the District of Columbia, Hawaii, Maine, Minnesota, Nebraska, Nevada, New Jersey, New Mexico, New York, North Dakota, Oregon, Pennsylvania, Tennessee and Washington now issue plates for more than one year.

In changing to semipermanent plates, we believe aluminum plates should be adopted in place of steel (1) to assure resistance to rust and corrosion especially in view of the large coastal area of the State and chemical treatment for snow throughout the State and (2) to permit savings in manufacturing and mailing costs.

The legislation which we propose will establish a semipermanent license plate to be used for a minimum of three years and will give the Commissioner of the Division of Motor Vehicles discretion to lengthen the period for which the plates may be used. Many states issue their plates for five years or longer: Delaware, Maine, New Jersey, North Dakota, Oregon, Pennsylvania, Tennessee and Washington. In estimating cost savings, we will give figures for both a three-year and a five-year license plate program.

One basic *savings factor* is *reduced postage*. We now mail approximately 150,000 pairs of steel plates annually at a cost of 35 cents per pair or \$52,500; or \$157,500 for three years; or \$262,500 for five years. The cost of mailing aluminum plates would be \$36,000 the first year and the cost of mailing revalidation stickers would be \$7,500 each year; or \$51,000 for three years; or \$66,000 for five years. *The total postage savings for three years would be \$106,500; the total postage savings for five years would be \$196,500.* If these costs were amortized, it would mean an annual savings of \$35,500 in a three-year program and \$39,300 in a five-year program. We believe these savings are understated in view of almost certain postage rate increases.

A second *savings factor* is in *reduced manufacturing costs*. The materials cost of alodized aluminum per plate as estimated by the Aluminum Association is .069 cents or \$345,000 for material for 5,000,000 plates the first year as opposed to \$175,000 for steel as reported by the Industrial Department. The aluminum plate would, fabrication costs being equal, cost \$170,000 plus the Department's profit on that amount of \$25,500 or a total of \$195,500 more the first year. Each subsequent year, however, there would be no material or fabrication cost at all under the semipermanent license program and a savings of (\$.09 per plate x 5,000,000 plates) \$450,000. *The total manufacturing savings for three-year plates*

would be \$704,500; the total savings for five-year plates would be \$1,604,500.

Combined postage and manufacturing savings would be \$811,000 for a three-year program and \$1,801,000 for a five-year program. The maximum cost estimate for reflectorization quoted earlier is 28 cents per plate or \$1,400,000. Thus the use of a semipermanent five-year plate would create sufficient savings to pay for reflectorization.

The cost of manufacturing revalidation stickers has proved to be approximately one and one-half cents per sticker in such states as Oregon where a reflective, pressure sensitive sticker which disintegrates upon removal has been found to be satisfactory. This represents an additional annual cost of \$75,000. Virginia's semiannual inspection program gives added assurance that the revalidation sticker will serve for purposes of maintaining and enforcing annual registrations.

With respect to both reflectorization and semipermanent plates we are recommending the changes from our current program become effective as of January 1, 1970 to allow ample time for adjustments in the administrative and manufacturing processes. The legislation which we propose will make reflectorization a general requirement and semipermanent plates a requirement for all vehicles except trucks and buses to which the Commissioner may continue to issue plates annually.

\* (4c) Annual motor vehicle registration fees should be raised \$1 to aid in financing the State's highway safety program.

We have already proposed limited increases in the fees for operators' and chauffeurs' licenses to support the reexamination program and the change to plastic licenses which carry the licensee's photograph.

An additional increase in revenues is needed to meet other aspects of the overall highway safety program proposed herein. A \$1 increase in the annual fee for motor vehicle registration will generate approximately \$2,100,000 each year. We recommend that these added revenues be used insofar as necessary and upon authorization by the Governor to finance the State's highway safety program. These funds should be used to cover the initial expenditure for reflectorization which falls within the first year of use of semipermanent license plates. Additional appropriate uses for such funds within the highway safety program would be, for example, the development of the Research and Traffic Accident Prevention Center and the establishment of the Highway Safety Division within the Governor's Office.

Any portion of such additional revenues not designated specifically for highway safety purposes by the Governor should be disposed of, as are annual motor vehicle registration fees generally, in accordance with § 46.1-167 to cover the expenses of the Division of Motor Vehicles and for highway construction and maintenance purposes.

\* (4d) License plate numbers should be limited to no more than six digits to assist enforcement officials.

Simple logic tells us that if the numbers on license plates are kept to as few as possible, enforcement will be benefited. The current use of seven-digit license numbers means they are difficult to read and remember, especially when vehicles are moving and when enforcement is involved, and this system also involves some production problems. Virginia now numbers plates from 1 to 999,999 and from A1 to A999,999.

The best numbering system for Virginia which is both uniform and ranks high in tests for perception and readability would be a combination of two letters and four numbers of from AA 1 to ZZ 9999 as well as 1 to 999,999 and A1 to Z 99,999. This system produces over six million combinations, far more than necessary in Virginia.

Perception tests conducted in Illinois, the results of which were published in 1960, indicated that while 89.8% of an AA 111 and 70% of an AA 1111 type license could be read correctly, only 51, 28.9 and 26% of A1 2345, 1234 567 and 1234567 type licenses could be read correctly.

We would further urge the use of the initial letters for identification of the geographic area where the owner resides insofar as possible for increased aid to enforcement personnel.

## VIII. MEDICAL AND HEALTH ASPECTS OF LICENSING

### A. Overall Goals

Our primary goal is to ensure that all drivers on the highways are competent to be there. Those drivers who are subject to physical and mental conditions which hinder their ability to drive should be restricted in their use of the roads both to protect themselves and all drivers. Our recommendations to achieve this overall goal are designed to discover just who these potentially dangerous drivers are through research and administrative machinery. The recommendations in this section relate closely to and should be considered with those in the preceding section.

### B. Background

#### (1) Current programs

Within Virginia today, the Division of Motor Vehicles has sole responsibility for determining the eligibility of driver license applicants. The Division currently has authority and is directed by the Code of Virginia not to issue an operator's license to any person "afflicted with or suffering from such physical or mental disability or disease as will serve to prevent such person from exercising reasonable and ordinary control over a motor vehicle while operating the same upon the highways." Under this language, the Division has ample authority and the duty to keep incompetent drivers from the highway.

The problems for the Division are twofold—first, the problem of determining precisely what physical or mental disabilities or diseases actually prevent drivers from exercising "reasonable and ordinary control over a motor vehicle"; second, the problem of determining which applicants and drivers are affected adversely by such disabilities or diseases.

With regard to the *first problem*, that of gathering information and doing scientific *research* to determine which physical and mental conditions might lead to impaired driving ability, the Division has no facilities and does not conduct any research along these lines.

At present the only research in Virginia having any connection with these problems is the routine medical examination conducted on all traffic accident fatalities by the State Medical Examiner. As a part of this routine examination, blood samples are taken which would reflect the incidence of alcoholism involved in traffic fatalities. This type of examination could be valuable in determining the incidence of many physical disabili-

ties other than alcoholism if such information could be correlated and made available for use by the licensing agency. At present, no statistics are available from the Medical Examiner's routine autopsy concerning the incidence of heart attacks, diabetes, epilepsy and visual or other sensory defects, which could be used to determine whether such conditions might be grounds for restricting or denying a license.

Virginia is typical of the nation as a whole in its lack of research today. Only Pennsylvania as a matter of routine requires physical examinations for its drivers. It is too early at this time to determine whether these medical examinations have any effect on accident prevention.

The Commissioner for Pennsylvania has reported that 1.7% or 30,941 of the 1,866,349 examined were rejected. The largest percentage of such rejections, which may itself be viewed as a small percentage, occurs in the age bracket of 61 to 93. While the reported percentage of rejections was small, a far larger per cent, 36% or 168,117 of 467,276, of those applicants who had their eyes examined had to have their licenses stamped for the first time to require corrective lenses while driving. These statistics also reflect the fact that we know more about visual defects and can find them more easily than any other health problem related to driving ability.

One of the most complete and controlled studies in this area to date was instituted in California which is one of 17 states regulating driving privileges of people with chronic medical conditions. The records of 2,672 people with chronic medical conditions known to the California Department of Motor Vehicles were compared with records of 922 drivers renewing licenses and not known to have medical conditions. The overall and basic conclusion of the study was that

“Drivers with diabetes, epilepsy, cardiovascular disease, alcoholism and mental illness averaged twice as many accidents per 1,000,000 miles of driving and 1½ to 1¾ times as many violations per 100,000 miles as drivers in the comparison group on an age-adjusted basis. Drivers convicted for illegal use of drugs average 1½ times as many violations but no more accidents than those in the comparison group. The accident rates of drivers with medical conditions were further increased for drivers over the age of sixty, those with a poor attitude toward driving and maintaining proper medical regimen, those with more severe illness and those with a past history of an accident or violation related to the medical condition.”

The further conclusion of the study was that the value of the study itself was very limited since further studies were necessary to determine whether a similar degree of driving impairment existed for drivers with the same type of condition not known to be subject to chronic medical conditions by the Department of Motor Vehicles. It can be seen that the study used a comparatively small sampling of drivers to draw its conclusions.

At the 1964 Workshop, sponsored by the U. S. Public Health Service, American Medical Association and the American Association of Motor Vehicle Administrators on “Medical Aspects of Driver Safety and Driver Licensing”, the need for more research of this type was reiterated again and again as a basis for developing standards for licensing.

With respect to the *second problem, detection*, the Division currently relies on the observations of the license examiners when interviewing and giving an examination to a driver upon initial application for a license; answers to the medical questions included both on the initial application

and on renewal applications filed in by drivers every three years; notification from law enforcement agencies, insurance companies, courts, Commonwealth's Attorneys and individuals that particular drivers are incompetent to operate a vehicle and need reexamination; various provisions concerning persons hospitalized for mental conditions, inebriacy, drug addiction and epilepsy; and the reexamination of drivers involved in two moving traffic violations within a year or two reportable accidents within a year. It can be seen, at once, that the vast majority of drivers are actually examined only upon initial application for a license when the Division gives an examination for visual acuity in addition to having examiners note any obvious physical disability which might impair driving ability. The great majority of drivers who obtain a new license each three years by writing in for renewal are required only to answer a series of questions concerning their medical history.

The Division must rely on the completeness and truthfulness of the answers to the questionnaire to determine whether such drivers may have any deteriorating mental or physical condition which would affect their driving. It is obvious that many individuals filing for renewal simply would not notice their visual acuity had decreased to the extent that their license should be restricted by the requirement that the operator wear glasses while driving. Other disabilities, such as a heart condition or crippling arthritis may not be reported simply through fear that no license will be issued.

The Division currently conducts approximately 30,000 to 35,000 special examinations each year for those persons involved in two moving violations and two accidents within a year and those persons who are brought to the attention of the Division through notification by individuals, courts, etc. This approach while useful, usually locates incompetent drivers only after the accidents and violations we seek to prevent have occurred.

## (2) Needs

The first need which can be seen at a glance through the description of existing conditions in Virginia is to enlist the help of the medical profession to determine just what constitutes an impaired or physically incompetent driver and to detect incompetent drivers.

One basic standard recommended by the National Safety Council is that:

“Motor vehicle departments and other appropriate agencies should be supported in conducting research needed to develop improved standards and procedures in all areas of their responsibilities affecting traffic safety. Particular needs are for studies relating to driver attitudes; vision; the influence on driving of physical conditions such as epilepsy, heart ailments, and diabetes; and the effects of drugs. All such research should be conducted in cooperation with proper professional and technical specialists.”

The way to meet this recommendation is through a closer working relationship between the State Health Department and the Division of Motor Vehicles to foster research and closer cooperation between the medical profession and the Division in order to detect drivers who are incompetent.

With regard to detection, the 1964 Workshop on “Medical Aspects of Driver Safety and Driver Licensing” covered the possibility of medical advisory committees.

“There were seven such regional meetings, and at each of the seven the concept of a Medical Advisory Board was approved without dissent.

“It was held to represent the only logical answer to the problem of a practical workable liaison between the medical profession and the licensing agency.”

The necessity for a medical advisory committee to bring expert knowledge to bear on the question of medical aspects of licensing is twofold: first, to eliminate drivers with demonstrable disabilities from the highway, and second, of equal importance, to avoid denying or restricting driving privileges for those whose handicaps do not disqualify them from driving safely.

There is also a great need recognized both in general literature and by the federal standards issued under the Highway Safety Act for dealing with what has become an established problem—the need to examine drivers periodically to determine their visual acuity. It is necessary to emphasize the need to wear glasses while driving for persons with limited vision. This can most obviously be handled directly through restrictions on licenses without denying driving privileges.

Four years ago, the Virginia Advisory Legislative Council recommended that the question of visual standards be turned over to a specialized and professional commission for review. That group reported to the Division of Motor Vehicles recommending increased visual standards for motor vehicle drivers. The General Assembly failed to adopt their recommendations in the past Session, and we believe that the Assembly should delay no longer in bringing the visual standards used in Virginia up from the lowest of the 50 states to at least the well recognized minimum of 20/40 visual acuity. To quote the experts submitting that report, “In recommending a change to the 20/40 level in one or both eyes, with or without correction, we are only bringing our visual standards in line with the majority of other states.” Of all the fields involving medical aspects of licensing, the visual acuity area has been most thoroughly studied and can be dealt with in the least objectionable manner. Requiring a person with limited vision to use glasses while driving does not prevent him from using the road and is a simple means to increase the safety quotient on the highway for all drivers, particularly those affected by restricted vision.

### C. Recommendations and Reasoning

- \* (1) The post-mortem reports already being made by medical examiners on all traffic fatalities should be expanded to cover the presence of any medical or physical condition which may potentially have contributed to the accident and this aspect of the reports should be made available for further research and analysis.

Existing provisions of law found in §§ 19.1-33 through 19.1-46 already provide for routine reports by medical examiners in every case involving the sudden or violent death of any person. It is our understanding that at this time, in each case involving a traffic fatality, medical examiners run routine blood tests to determine alcohol content.

Our recommendation is designed to expand this type of post-mortem examination to cover all the potentially contributing physical and mental conditions which may have led to the traffic fatality involved. Further, we wish to assure that the information gathered from such reports will be

\* Legislation for recommendations starred will be carried in the Legislative Appendix.



made available for research and analysis to develop much needed information on actual contributing causes of traffic accidents.

While this recommendation represents only a small start toward obtaining the type of information needed to determine what constitutes an incompetent driver, it is a start easily made and potentially of real value in showing the actual causes of traffic fatalities.

- \* (2) A Medical Advisory Board should be appointed by the Governor to assist and advise the Commissioner of the Division of Motor Vehicles in reviewing medical aspects of license applications and in developing standards for broad application in licensing.

The Board should be composed of seven qualified and practicing physicians appointed by the Governor to serve for four-year terms on a staggered basis. Members should receive \$40 per day for each day devoted to executing the Board's responsibilities.

The function of this Board would be to serve as an advisory body to the Division of Motor Vehicles and it would meet at the request of the Commissioner. He would be able to consult with the Board for an advisory opinion when he has reason to believe that an individual operator is incompetent to drive because of a mental or physical disability.

In addition, the members of the Board would be well-qualified individuals able to assist the Commissioner of the Division in developing health standards for licensing and in reviewing such matters as the proper questions to use on license application forms to solicit health information.

- \* (3) We recommend the adoption of those portions of the 1965 Visual Standards Report which will raise Virginia's visual acuity requirements for obtaining a license to the recognized minimum standards necessary to assure safe driving.

We are recommending the adoption of those recommendations made in the 1965 Report, "Visual Standards for Motor Vehicle Drivers," submitted to the Division of Motor Vehicles by the expert Committee set up pursuant to a Virginia Advisory Legislative Council recommendation and Senate Joint Resolution No. 4 of the 1964 Session of the General Assembly.

These recommendations represent the best efforts of an expert body to bring Virginia into line with the recognized minimum visual standards applying throughout most of the country.

In proposing these standards we wish to emphasize that while the requirements proposed will affect a considerable number of Virginia drivers, as inferred from the Pennsylvania statistics, these drivers will not lose their licenses but simply be required to wear glasses while driving for their own and others' safety.

In addition to the issuance of licenses restricted by a requirement for wearing glasses, these proposals include the recommendation for daylight driving licenses for persons with particularly unsafe vision, i.e. minimum vision of 20/70 or minimum binocular horizontal vision of 70 degrees.

The Division has already applied some of these recognized standards administratively by requiring 20/40 vision for persons over 55. We believe the Division should be given adequate and proper authority to apply the same minimum standards to all our drivers.

- \* (4) We recommend the Division of Motor Vehicles be given specific authority to require a physical examination where there is cause to believe the applicant or licensee may be physically incompetent to drive.

Under existing administrative practice the Division does require such examinations under § 46.1-383 (a) which covers reexaminations following two violations or accidents. We believe their action is sound, and while it is most probably within the intent of the legislation, we are recommending an amendment to make the authority explicit.

## **IX. EMERGENCY SERVICES AND TRANSPORTATION OF THE INJURED**

### **A. Overall Goals**

Our recommendations in this section offer means to minimize the number of deaths and serious disabilities resulting from highway crashes by assuring prompt and qualified emergency care for the victims of these crashes. Properly equipped ambulances, properly qualified attendants, a sufficient number of emergency vehicles to handle emergency calls, and improved communications among police, ambulances and hospitals are specific, practical goals which can directly contribute to reducing the fatalities and serious disabilities which result not only from highway accidents but also from the equally large or even larger number of accidents occurring in homes and on the job.

### **B. Background**

Replies to a Commission questionnaire directed to each city and county in Virginia, in order to learn the number of ambulances and emergency vehicles and the degree of local regulation of emergency services, lead us to the conclusions that the number of vehicles available and the degree of regulation covering the equipment to be carried on such vehicles and the training of attendant personnel fall short of meeting the State's needs. We are reluctant to rely too heavily on the results of the questionnaire although replies were received from over 90% of the cities and counties. Many replies included vehicles based in a neighboring locality which are available for calls in the locality replying. These duplications tend to overstate the supply of vehicles. Even accepting these duplications, however, it appears many localities are poorly serviced by emergency equipment too widely scattered to reach numerous potential accident locations promptly. In addition few localities regulate either the equipment for emergency vehicles or the qualifications of attending personnel.

These weaknesses in Virginia's emergency services parallel the situation elsewhere in the country. Dr. Robert H. Kennedy, Chairman of the Committee on Trauma of the American College of Surgeons, referring to the results of a Committee study of ambulance services in the country, concluded that "better ambulance services may save lives, decrease hospital stay and permanent disability, put an end to the steady increase in insurance costs, and bring to (the) community a proper sense of responsibility similar to police and fire department services." While noting that statistics are scant, he cited one estimate that 20,000 out of 100,000 accidental deaths might be avoided by improved ambulance and emergency services. While few statistics on this point are available, common sense assures us that improved emergency services are bound to effect good

results in numerous cases where qualified on-the-scene care and proper transportation techniques are essential.

Various authorities, including the American College of Surgeons, the U. S. Public Health Service, the National Safety Council and the President's Committee for Traffic Safety, have outlined the logical requisites for a sound emergency services program for us already: first, a proper supply of first-aid equipment on each vehicle; second, properly trained personnel to accompany the vehicle; third, a sufficient number of vehicles; and fourth, a working communications system to coordinate police, ambulance and hospital personnel.

The goal set out in the Highway Safety Act standards for State and local programs on emergency services evolves logically from the position taken by the authorities referred to above:

“To provide an emergency care system that will:

- I. Provide quick identification and response to accidents.
- II. Sustain and prolong life through proper first aid measures, both at the scene and in transit.
- III. Provide the coordination, transportation, and communications necessary to bring the injured and definitive medical care together in the shortest practicable time, without simultaneously creating additional hazards.”

The specific standard (4.4.11) calls for a State program conducted with the cooperation of the localities which provides the following as a minimum:

- I. There are training, licensing, and related requirements (as appropriate) for ambulance and rescue vehicle operators, attendants, drivers, and dispatchers.
- II. There are requirements for types and numbers of emergency vehicles including supplies and equipment to be carried.
- III. There are requirements for the operation and coordination of ambulances and other emergency care systems.
- IV. There are first aid training programs and refresher courses for emergency service personnel, and the general public is encouraged to take first aid courses.
- V. There are criteria for the use of two-way communications.
- VI. There are procedures for summoning and dispatching aid.
- VII. There is an up-to-date, comprehensive plan for emergency medical services, including:
  - A. Facilities and equipment
  - B. Definition of areas of responsibility
  - C. Agreements for mutual support
  - D. Communications systems
- VIII. This program shall be periodically evaluated by the State and the National Highway Safety Bureau shall be provided with an evaluation summary.”

We believe that we have a fair start in Virginia in many localities toward meeting these minimum criteria and that the recommendations

offered below will carry us a good distance toward the goals outlined. Our recommendations concentrate on the areas of training of personnel, equipment to be carried on vehicles and assuring adequate ambulance services. Specific regulation of the design of ambulances falls under the jurisdiction of the National Traffic and Motor Vehicle Safety Act and, as is the case with other motor vehicles, outside the scope of this Report. The problem of adequate communications does not lend itself to legislative handling and involves administrative coordination among the police, ambulances and hospitals as well as further work on the proper means and channels of communication. This problem must be met by those involved in dealing with emergency services under the guidance and urging of a new Highway Safety Division or its counterpart and the State Health Department. Dr. H. E. Gillespie, Director of the Bureau of Epidemiology of the Department has already been appointed to head the State program for emergency medical services in connection with the Highway Safety Act standards and much of this section is concerned with giving him and the Health Department the necessary authority to effect the improvement of our services in this field.

### C. Recommendations and Reasoning

- \* (1) Authority to regulate the equipment carried on ambulances and to certify the qualifications of attendant personnel should be vested in the State Health Department and in an Advisory Committee on Emergency Medical Services; and the operation of ambulances within the State should be dependent on the holding of a permit to do so and the presence of a certified ambulance attendant.

While the number of vehicles needed may vary from locality to locality, the type of equipment needed and the quality of training desirable for attendant personnel are clearly matters for uniform regulation throughout the State. Traumatic injuries do not favor any locality and the means to deal with them should be of even caliber in every locality.

The legislation which we propose vests in the State Health Commissioner or his designated representative authority to issue a permit to operate an ambulance within Virginia to any applicant for such permit who shows that the ambulance registered in his name meets the standards for medical equipment and supplies set forth in the legislation and in standards to be promulgated by the Board of Health. As a starting point, we propose the "Minimum Equipment List for Ambulances" as recommended by the Committee on Trauma of the American College of Surgeons be adopted in the statute with authority in the Board of Health, subject only to approval of the Advisory Committee on Emergency Medical Services, to vary from this list either by adding or deleting specific items.

In addition to requiring a permit to operate an ambulance, a further statutory requirement should be the presence of at least one person who holds a valid emergency medical care personnel certificate, also issued by the Commissioner or his designated representative, whenever the ambulance is on an emergency mission. The Board shall adopt regulations to specify the qualifications required to obtain a certificate, subject to the approval of the Advisory Committee.

The legislation proposed establishes the Advisory Committee on Emergency Medical Services to assist the Board and Commissioner in performing their duties and to assure fair representation to the interests directly

\* Legislation for recommendations starred will be carried in the Legislative Appendix.

involved. Representatives on the Advisory Committee would include representatives of the following organizations: the League of Virginia Counties, Virginia Municipal League, the Medical Society of Virginia, the Virginia Hospital Association, the Virginia Funeral Directors Association, the Virginia Association of Rescue Squads, Inc., and the American Red Cross. These seven organizations would submit lists of nominees to the Governor who should so appoint members as to assure representation of these groups. In addition the Governor should appoint two representatives of the commercial ambulance services to serve for four-year terms.

Penalties under the proposed statute would be revocation of the permit to operate an ambulance for failure to comply with Board regulations. Operation of an ambulance without a permit or on a revoked permit or without a properly certified attendant will constitute a misdemeanor.

This legislation follows closely legislation recently adopted in North Carolina. It reflects the trend in other areas such as New York City, California, Louisiana, Massachusetts, Nevada, Oregon and Texas to institute some regulation of emergency medical services.

- \* (2) The State should appropriate funds to the Department of Health to support ambulance and rescue squad personnel training programs and schools.

This recommendation supplements the preceding one, and the same legislation which gives the Board and Department of Health responsibilities for the certification of ambulance attendants should also make provision to support their training. Initially \$10,000 should be appropriated to the Department to be used to support the training of ambulance and rescue squad personnel through training programs established by or approved by the Department for the purpose of training individuals to meet the standards for certified ambulance attendants. The appropriation suggested here is low in comparison to the \$16,000 currently appropriated for training of fire service personnel and the \$25,000 suggested in this year's Virginia Advisory Legislative Council report on fire service personnel training, but it should serve to support the start of a sound training program in conjunction with the certification standards.

- \* (3) The State should adopt a policy of fostering adequate local ambulance services and authorize localities to regulate emergency services and grant franchises to this end.

We believe the State should give full backing to the localities in their efforts to assure their residents adequate ambulance services to the same degree that police and fire protection are afforded.

The authority of the cities and counties to provide ambulance services should be broad, and we have no wish to rule out any alternative means to furnish services from the owning and operating of ambulances by the city or county to the contracting with any public or private agency to provide such services.

Two supplementary steps should be taken to increase local authority in this area. *First*, general authorization should be given the localities to regulate emergency transportation activities within their jurisdictions.

*Second*, following proper notice and hearing provisions a county or city should be able to grant a franchise to operate an ambulance service within the city or county or a specific part of it. In some cases a locality

may be best able to get effective service through a franchise arrangement assuring adequate and yet not overlapping services. In conjunction with this authority, the county or city should have power to prohibit unfranchised ambulances from operating in a franchised territory and power to regulate the amount of charges of franchised services.

- \* (4) The current "good samaritan" statute should be expanded to include certified emergency medical care personnel, as well as doctors and dentists, rendering assistance at the scene of an accident.

We believe the same exemption from civil liability currently provided for doctors and dentists stopping to render emergency assistance at the scene of an accident should be extended to certified emergency medical care personnel whose job it is to act in these emergency situations. Under the legislation earlier proposed, any individual willing and able to meet Board of Health standards for a certificate, may obtain one whether he works for a commercial ambulance service, for a rescue squad or for a police or fire department. We recognize that many individuals active in emergency rescue work desire the protection of this statute and believe it can most equitably and safely be extended by predicating its coverage on the qualifications of the individual as ascertained by the Department of Health.

- \* (5) A resolution should be adopted by the General Assembly requesting the State Department of Highways and the State Police to study the problem of providing an adequate communications system for Virginia's limited access highways.

The necessity for emergency communications on our Interstate and other limited access roadways is particularly serious because of the distances between exits and the fact that such roads are fenced. Emergency phones at intervals on such highways obviously can be of real assistance to the stranded motorist and can be utilized to summons emergency crews and police in case of accidents.

While the usefulness of emergency phones or communications is clear, the cost and development of a communications system warrants special study. We propose that the General Assembly request the Departments of Highways and State Police to study the need for emergency communications on our limited access roadways, the cost and best means to develop a system of communications for such roads and to report their findings to the Governor and to the General Assembly by January 1, 1969. A nine months' study should be sufficient on this specific question and we anticipate that action could be taken on the results of the study without specific legislation and by administrative action.

## **X. THE DRINKING DRIVER**

### **A. Overall Goals**

We seek to achieve, so far as it is possible, a reduction in traffic accidents and deaths which result from the operation of motor vehicles on the highways of the Commonwealth while drivers are under the influence of alcohol.

### **B. Background and Facts**

Virginia was among the first states to introduce chemical testing for driving while intoxicated. The first Virginia law was a voluntary blood

test which at first achieved some degree of success. As time went on, however, drivers who had been drinking became aware of the incriminating aspects of taking chemical tests and the number volunteering for such tests diminished. An implied consent law was passed in 1962, and because of the complexities in the law the number of convictions for DWI decreased materially as did arrests for the offense. Because of the technicalities in the law and the difficulty of perfecting the charge, the statute came into disrepute with law enforcement agencies as well as the courts. The General Assembly rewrote the law in 1964, removing many of the causes for dissatisfaction, but the original difficulties linger on in the minds of many police and prosecutors, and in some areas of Virginia little or no effort has been made to enforce it. Other areas, however, have had considerable success with the law once a sincere effort has been made to enforce it. The very large variation in enforcement among communities, as disclosed in the study on the Administration and Enforcement of Selected Traffic Laws in Virginia, by the Virginia Highway Research Council, is most revealing.

Comments of judges reported in the Highway Research Council study are fairly descriptive of the reaction of many municipal and county court judges:

“The implied consent law is generally disapproved by lower court judges. The reasons for disapproval vary. Section 18.1-55.1 is said to be too technical for police officers to effectively implement with the result that convictions for driving under the influence are too difficult to obtain.\*\*\*

“It is felt that doctors and other individuals who extract blood for blood tests should have greater immunity from civil suits.

“A number of judges seem to hold the view that the blood test must be offered the defendant charged under Section 18.1-54 and if he takes the test, then the only evidence sufficient to sustain the charge is the blood test evidence. Coupled with this view is the feeling that failure to comply strictly with the requirements of Section 18.1-55.1 for preparing, identifying, etc. the blood test evidence renders the evidence inadmissible.”

Immediately following the above, the researchers made the following comment:

“The judges expressing the view mentioned in the previous paragraph seem to have misinterpreted the scheme of Section 18.1-54 and Section 1-55.1 and appear to still be operating under the 1962 version of the implied consent law. The notion of strict compliance with the procedural requirements of Section 18.1-55.1 should have been dispelled by the clear language of Paragraph (R )(s) of that section, but certainly the recent case (March 1967) of *Shumate v. The Commonwealth* 207 Va., ..... (1967) will settle any remaining doubts.”

In addition to the confusion on the part of some courts concerning the application of the law, another discouraging aspect of enforcement of the implied consent law is the large number of acquittals by juries in cases which are appealed from the lower courts to the circuit courts. Here the game of technicalities reaches its zenith, as it is apparent that many jurors are most tolerant in their views of the seriousness of the offense. It has also been pointed out by several prosecutors that jury results may be affected by the fact that a large percentage of jurors have had traffic records.

There is equal discouragement in dealing with the problem among some police. Their greatest objection is the length of time it takes to perfect a case. Often they are refused assistance by medical personnel and hospitals, or demands are made by physicians for releases from liability which when refused by the accused necessitate the officer seeking out new assistance, or as most often happens, a reduction in the charge to reckless driving and drunk in public. A summary of comments made by municipal policemen in the report on Administration and Enforcement of Selected Traffic Laws in Virginia reflects the frustration of the police officials:

“The driving under the influence law as it presently exists is unworkable. It is full of loopholes to make it easy for lawyers to secure a dismissal or reduction to lesser offenses. The requirements for preparation of the blood sample are too burdensome and technical and often not only take a patrol unit off the street for one half to two hours, but also tie up supervisory personnel for extended periods of time.

“Most hospitals require defendants to sign releases from civil liability before extracting the blood and defendants not being required to sign releases can effectively prevent the test by refusing to sign.”

It is also an unfortunate fact that those drinking drivers who are injured and taken to a hospital after an accident almost invariably escape any penalty for their crime, even though they may have injured or killed others. It is difficult for the police under such circumstances to make an arrest in time and to obtain a blood sample. Doctors are reluctant to make their findings available because of patient-doctor relationships, and if a blood sample is refused it is impossible for the police officer to perfect a charge for refusal because of inability to comply with the requirement of the statute which necessitates taking the accused before a committing justice.

*The fact nevertheless remains that since the 1964 amendments a gradual improvement in enforcement has taken place. State Police, who are adequately instructed in the procedures under the law, achieve a high percentage of convictions, indicating that proper instruction of local officers might accomplish the same result.* There is also growing concern among the public regarding the incidence of drinking drivers in relation to highway accidents. Gradually it has become accepted that any drinking of alcohol increases reaction time and impairs visual and perceptive abilities; that drinking decreases comprehension and fogs one's ability to drive; that it affects the psychological attitude toward risk-taking, behavior and judgment.

It is hard to say whether the incidence of drinking drivers is increasing, or whether statistical information and our knowledge of its prevalence is becoming broader. In some states where most complete statistics are maintained it has been found that alcohol is a factor in 50% or more of the deaths on the highway. Virginia statistics show that at least 33% of all fatal crashes involved a drinking driver. No one, however, can estimate precisely how many accidents or injuries are caused by drinking drivers. Neither is anyone in a position to pinpoint the alcoholic source of the problem. For too long, however, beer has been ignored as one such source. The origin of many single car accidents in rural areas can be traced directly back to the crossroads store. Apparently there is little appreciation on the part of many that a twelve-ounce can of beer equals a drink of whiskey.

It is doubtless an exaggeration to say that 50% of the problem on the highways is the drinking driver, even though that percentage may hold



true in fatalities. Nonetheless, it is a fact that the drinker who drives is an excessively large part of the problem, *and despite all the difficulties surrounding enforcement, every effort must be made to get that driver off of the highways.* In the Scandinavian countries, where this effort has been most persistent and advanced, there is little doubt that chemical tests and strict enforcement have brought about material improvement. While it has not eliminated the problem, and never will, the results have been impressive. One highly populated area in Norway in a recent year had no traffic deaths attributed to alcohol, and automatic breath testing on the spot in any accident involving injury likewise shows the efficacy of this on-the-road testing program. Hard line enforcement has not lessened social drinking in these countries, but it has changed the habits of these people to where the hazard is substantially reduced.

The problem in Virginia is threefold: First, make our laws more enforceable. Second, require greater uniformity of enforcement throughout the State. Third, increase the realization on the part of the public that the drinker who drives is a menace to everyone on the highway.

### C. Recommendations and Reasoning

- (1) The changes which we propose to increase the effectiveness of our procedures to control driving while intoxicated should be carried out within the framework of our existing statutes rather than by the adoption of an entirely new statute.

One problem, raised at the outset of our consideration of how to deal more effectively with the drinking driver, was whether we should recommend a new and simpler statute such as the sections on implied consent in the Uniform Vehicle Code or work within the framework of existing Virginia law.

While the Virginia provisions are somewhat complicated with detail, there is not too much inherently wrong with the Virginia law that cannot be cured with some modifications and a willingness on the part of prosecutors and police to enforce it. Evidence gathered at public hearings, held by the study committee initially reviewing this area and by the Commission, showed many areas are getting more and better results under the present law, as their enforcement personnel gain experience in using it.

While the Uniform Code is simpler and removes the clutter of spelling out specific procedures, it has been found upon inquiry in the Uniform Code states that their laws and procedures are subject to substantially the same attacks as in Virginia. We therefore recommend that the following changes be worked out within the framework of the existing Virginia law.

- \* (2) The breath test should not be introduced into our State's procedures under the implied consent law at this time, but the localities should be given authority to introduce the breath test through local ordinances.

The Commission feels that, while it may be ultimately desirable to incorporate the breath test into the law for State-wide application, before we introduce an alternative procedure into the statute, we should try to perfect the present procedure of blood testing. Breath testing would be accompanied by another long period of legal wrangling over test procedures until it is clarified, with a detrimental effect on police morale.

\* Legislation for recommendations starred will be carried in the Legislative Appendix.

Use of an alternative breath test involves the question of who makes the choice—the arresting officer or the accused. The argument for permitting the accused to make the choice is that he is the one who selects his own form of test and therefore may be less likely to refuse a test. On the other hand, it is said that giving the accused the choice provides the accused with one more opportunity to make it difficult for the police officer. For example, the individual arrested could select the breath test and then change his mind and insist on the blood test and thus use up the two hours in which the blood test should be administered. Moreover, many areas will not have testing equipment unless the State makes it available. It is further argued that latitude should be given the officer, particularly where someone could not be found to take a blood sample.

The greatest support for breath testing understandably comes from the medical profession who see in the breath test a lessening of the burden on medical personnel. There appears to be a division of opinion among the police as to whether breath testing should be included with blood testing. A close reading of the federal standard does not indicate that alternative chemical methods must be used so long as some chemical method is provided for.

We would, however, authorize the localities to enact ordinances to utilize the breath test as an alternative to the blood test. Localities are presently authorized to adopt ordinances paralleling the provisions of § 18.1-55.1 which covers implied consent to a blood test. Similar authorization should be given to permit the use of the breath test as an alternative to the blood test or in lieu of it, with the proviso that such local ordinances should provide that any breath test administered thereunder will be conducted in accord with State Department of Health standards on equipment and procedures. The locality may determine for itself whether or not the accused or officer makes the choice of which test to use if the local ordinance retains the blood test.

We believe that authorizing the localities to introduce the breath test will give the State a basis on which to judge the workability of the breath test before changing the State law. In addition, the localities which have experienced the greatest difficulty in using the blood test procedures, perhaps because of the reluctance of doctors to administer the test, will be given a possibly more useful approach for their areas.

We see no objection to the use by police of breath test devices for screening purposes and on-the-road testing to assist in determining whether further testing is indicated, and we encourage the police to use such equipment and to request those suspected of driving while intoxicated to take such tests.

\* (3) Certain steps should be taken to obviate the valid objections of doctors and hospitals to existing blood sampling procedures by (a) raising the fee from \$5 to \$15, (b) providing for immediate payment thereof, (c) requiring circuit court designation of personnel to administer the sampling, and (d) increasing protection against litigation through substitution of the State as defendant in negligence suits with recovery over by the State against the party taking the blood sample in cases of gross negligence only.

One of the greatest difficulties under the present statute is to get doctors, etc. to take the blood samples. Refusals of doctors and hospitals to take blood has reached serious proportions in many sections of the State. We are not unsympathetic with the causes for this. The vast majority of

the tests have to be taken at night at considerable inconvenience. The accused is often not the easiest person to handle and comes to the doctor only under duress. The fee of \$5 is insufficient and often the doctor has to wait for long periods before being paid.

To rectify this situation we recommend :

(a) that the fee be increased to \$15, to be charged against the accused if convicted, otherwise paid from the criminal fund ;

(b) that such payment be made immediately by the locality, reimbursable from the proper fund ;

(c) that the statute be amended to provide that the circuit court appoint certain doctors, nurses, technicians, or designate by class the personnel in hospitals, to take blood samples ;

(d) that the statute be further amended to provide that suits for negligence may not be brought against any doctor, hospital, etc., taking blood samples; and that suits for such negligence may only be brought against the State with the right vested in the State to recover over against the doctor or party taking the sample in cases of gross negligence.

\* (4) The required levels of alcohol content revealed in blood tests which give rise to certain presumptions at law should be lowered so that 0.05% to 0.10% by weight alcohol content will be presumptive evidence of impaired driving and 0.10% or greater alcohol content will be presumptive evidence of driving while intoxicated.

The recommended reduction to 0.10% in the amount of blood alcohol content which should give rise to a presumption of driving while intoxicated, would make our statute reflect the widely acknowledged fact that drivers are dangerously and detrimentally affected by drinking when they have had what would amount to seven and one-half ounces of whiskey for a 155 pound man within one or two hours after a normal meal. The Uniform Vehicle Code, the President's Committee on Traffic Safety, the federal standards issued under the Highway Safety Act, the American Medical Association and the American Association for Automotive Medicine advocate a 0.10% level as presumptive of driving while intoxicated.

The trend to lower the level to 0.10% results from several factors. First, a growing body of research reports and conclusions point out that drivers are dangerously affected by alcohol at this level and, for example, six times as likely to cause accidents than non-drinking drivers\* in addition to being affected in terms of perception and reaction time. Second, evidence mounts that drinking drivers are causing a large percentage of accidents. For example, the 1946 edition of the National Safety Council's *Accident Facts* estimated on the basis of state reports that 18% of all drivers involved in fatal crashes had been drinking and the 1966 edition reported drinking a factor in "as many as half of the fatal motor vehicle accidents."

This accumulating evidence indicates that realistic laws would base the presumption of driving while intoxicated on a blood-alcohol concentration of 0.10% and higher and impaired driving on a concentration of from 0.05% to 0.10%.

\* (5) The arresting officer should be permitted to give evidence on his opinion of the defendant's condition at the time of arrest.

\* Borkenstein, R. E., et al., *The Role of the Drinking Driver in Traffic Accidents*.

In cases where a person is accused of driving under the influence an officer is prohibited from expressing an opinion as to the condition of the accused, that is, whether or not he was under the influence or drunk. The officer now can, of course, and should testify as to the defendant's specific behavior and actions. We recommend that arresting officers be permitted to express an opinion as to the condition of the accused at the time of arrest, since they have sufficient experience on which to base their opinion in this area to qualify as experts.

- \* (6) Authority to sign the blood sample certificate should be given to the administrative assistants of the Chief Medical Examiner or Assistant Chief Medical Examiner.

The statute provides that the Chief Medical Examiner, or an Assistant Chief Medical Examiner, shall execute the blood sample certificate. Often these officials are on other duties throughout the State and are not available for that purpose.

Therefore, it is recommended that the certificate may be signed, in addition to the above, by an administrative assistant in the office of the Chief Medical Examiner or of an Assistant Chief Medical Examiner.

- \* (7) The taking of the blood sample should be made prima facie evidence of compliance with the procedures for taking it outlined in the statute.

Although the *Shumate* case and the provisions of subsection (s) of § 18.1-55.1 go a long way in alleviating the problem of strict compliance with the procedural requirements of § 18.1-55.1, a large amount of the court's time is taken up with technical matters such as whether the soap used to cleanse the body had an alcoholic content, what is an accepted steam sterilizer, etc.

To implement the purpose of the Assembly that procedural requirements not dominate the trial of a case, it is recommended that the fact that the sample has been taken will be prima facie evidence of compliance. This will make it clear that the defendant will have to raise any issue related to the procedures and that the prosecutor does not have to cover these points in every case. We believe this language in the statute will suffice to change the practice still evident in some courts, despite subsection (s), of requiring strict procedural compliance on every technical point rather than substantive compliance with the section as a whole.

- \* (8) The implied consent statute should be amended to authorize the State Health Commissioner to limit the number of approved laboratories testing the second blood sample for the accused and to permit the accused to send his sample to the Chief Medical Examiner for testing free of charge.

It has been found that the variations which have occurred between the testing of the blood sample by the office of the Chief Medical Examiner and the various laboratories throughout the State have, in some cases, occurred by reason of differences in procedures, and in other cases because of changes in personnel so that persons not familiar with procedures sometimes do the testing.

It is believed that if the statute were amended to limit the number of such laboratories more uniform procedures could be achieved thereby eliminating some of the disparities that have occurred in the past. The

statute should, therefore, be amended to permit the State Health Commissioner to limit the number of such approved laboratories throughout the State. Further, the accused should be permitted, as an alternative, to have the second sample mailed to the Office of the Chief Medical Examiner for testing without charge.

- \* (9) The statute should be amended to permit the use of sealed kits approved by the State Health Commissioner which the police could provide the person taking the blood sample.

Some states with implied consent laws provide the law enforcement officers with complete sealed kits for taking blood samples, including a proper substance for cleansing the body before the blood is taken. The use of such kit has helped materially in greater acceptance of the test by the accused and avoidance of technical objections during the trial.

We believe that the statute should specifically allow, as an alternative for the procedure in the statute for taking the blood sample, for the sample to be taken with sealed blood sampling equipment approved by the State Health Commissioner.

- (10) Hospitals should be required to take a blood sample of any driver admitted following a traffic accident if law enforcement personnel so request.

Where an individual involved in a traffic accident is immediately thereafter admitted to the hospital, the provisions of existing law are unworkable because they require the arresting officer to take the accused before a committing magistrate if he refuses to consent to a blood sample and test. Even if conscious the accused cannot practically be removed from the hospital. As a result, a considerable number of injured drivers are escaping prosecution, conviction and resultant revocation of driving privileges for driving while intoxicated or refusal to consent to a blood test.

Because this is a very special and serious situation, we recommend that a separate statute be enacted to require every driver admitted to a hospital following a traffic accident to submit to a blood test if an enforcement officer so requests. The penalty for refusal to consent to the test should be the same as in the case of refusal to consent under § 18.1-55.1. Such persons, if unconscious, shall be deemed to consent and the statute should require the hospital to take the blood sample upon the officer's request in such cases.

The results of such tests will be admissible in evidence and given the same presumptive effect as under the implied consent statute provided the sample is taken within two hours of admission to the hospital. The results will be admissible without presumptive effect if the sample was taken within two to four hours after admission. Procedures for withdrawing blood and testing the sample would parallel § 18.1-55.1.

- \* (11) Annual reports should be made by the Traffic Accident Prevention and Research Center on action taken under the driving while intoxicated or impaired, and implied consent statutes.

In order to provide better information about the enforcement of the driving while intoxicated or impaired and implied consent laws, we recommend the Traffic Accident Prevention and Research Center make a report annually to the Governor and members of the General Assembly showing by locality the number of warrants issued for violations of §§

18.1-54, 18.1-55.1 and 18.1-56.1 (and parallel local ordinances), the disposition of such warrants, the number of convictions and acquittals, the penalties assessed by the courts, and the appeals taken and the disposition thereof.

- \* (12) Penalties for refusal to consent to a blood test should be increased to six months' suspension of driving privileges for a first offense and one year's suspension for a second offense within a year.

As the penalty under the implied consent law now stands, (90 days' suspension for a first conviction and six months' suspension for a second or subsequent conviction within one year), some drivers who have been drinking are encouraged to refuse the test in hopes of avoiding the heavier penalty for driving while intoxicated, which is automatic revocation of driving privileges for one year.

We, therefore, recommend this increase to bring the penalties more in line and to lessen this incentive.

These increased penalties will also apply, as noted earlier, to the new statute covering the taking of blood samples from injured drivers in hospitals.

## **XI. ENFORCEMENT**

### **A. Overall Goals**

Within this topic, we examine the functions and operations of the police, the courts and the administrative agencies charged with enforcement of the motor vehicle laws. While primary emphasis has been devoted to the review of the methods by which current laws are being enforced, additional consideration has been given to the specific statutes which must be enforced by these agencies.

Through the course of our study and at the root of each recommendation offered in this section, one overall goal predominates—how to achieve maximum fairness and effectiveness in the enforcement of these laws so that the lawful, responsible motorist can drive with confidence that he will be protected and so that all drivers will have full respect for the laws and their swift, sure enforcement.

The discussion and recommendations which follow are divided into several major topics: enforcement by police, enforcement by courts and the laws being enforced. The recommendations offered are specific in nature, covering many particular topics and enforcement features.

### **B. Background**

#### **(1) Present conditions**

The vital importance of enforcement and respect for the law is sharply reflected in the statistics on motor vehicle accidents and crashes. During 1966, nearly 83% of all reported motor vehicle crashes involved some violation of a traffic law. More than half of the drivers involved in accidents in that year were violating some law. Speeding, failing to yield the right-of-way, driving left of center line, disregarding traffic signals and disregarding stop signs were among major contributors to both fatal crashes and nonfatal accidents.

Effective enforcement can be a major method to decrease the number of violations and resultant accidents and fatalities. Effective enforcement means deterrence. If motorists know and expect enforcement will be swift and certain, they will drive with more care and respect for the law. In addition, enforcement will, in proper cases, lead to the arrest and conviction of violators and to revocation and suspension penalties.

*Enforcement by the police.* The State Police force comprises approximately 15% of the total available law enforcement personnel in Virginia. As of March 1, 1967, 796 State troopers were employed in comparison with approximately 4,500 county and municipal law enforcement personnel.

In describing selection of State Police personnel, the Governor's Highway Safety Committee has, in its "Virginia's Traffic Safety Program—1964" outlined the qualifications required for a State trooper. Minimum acceptance is based on a complete high school education, height and weight qualifications, health, age and character. Once basic requirements are met, aptitude examinations follow. A complete physical examination is conducted. Then an investigation of the applicant's life from the time of birth is conducted along the lines of those of other enforcement agencies such as the F.B.I. Conditional appointment to the position of trooper follows, during which time the applicant is evaluated. An eighteen-week course covering 109 subjects is the next step in the State Police Department basic training school.

Under such standards and programs, the State Police have been able to recruit less than their authorized quota of 897 men. As of September 15, 1967, the State Police had 76 trooper vacancies.

The duties of the troopers involve the patrol of 50,000 miles of roads. The ratio of supervisors to troopers in 1966 was one to 11.2, which compares favorably with all surrounding states. During that year, State police executed 254.9 arrests per man, also an average which compares very favorably with surrounding states.

Virginia troopers attend a one-week retraining program annually. The recommended number of in-service training hours every two years by the International Association of Chiefs of Police is 40 hours. Virginia more than meets this requirement by having 54 hours of in-service training.

It is difficult to evaluate as thoroughly the operations of the approximately 4,500 local officers involved in motor vehicle enforcement. The qualifications, pay, in-service training and work of these local enforcement officers vary widely from one locality to another.

There is no uniform requirement for in-service training of local enforcement officers, but there is a Central Police School sponsored by the State Board of Education, the Virginia Municipal League and the Virginia Association of Chiefs of Police which utilizes the State Police training facilities. This school held three sessions of three weeks each in 1965 and 1966 which approximately 225 municipal and county officers attended. The applications to attend the school are exceeding its available facilities. A somewhat similar program sponsored by the Virginia State Sheriffs and City Sergeants Association is also underway which utilizes State Police facilities.

*Enforcement by the courts.* The courts not of record have continuous contact with traffic law violators.

One opportunity for the courts to exert a preventive influence is the presentation by the courts of licenses to youngsters under eighteen (§ 46.1-

375.1). The presentation ceremonies were highly praised before Commission study committees time and again for their effectiveness.

The bulk of court impact comes, however, only after violations are charged. In examining the effectiveness of courts and our enforcement processes, the Commission was fortunate to have the assistance of the Highway Research Council.

Their report on "Administration and Enforcement of Selected Traffic Laws in Virginia," earlier made public, proved of great interest and brought out certain points:

- (1) Even in serious traffic violations (including driving without a license) a large number of jurisdictions do not bother to ask for driving records from the Division of Motor Vehicles. (Page 8)
- (2) A substantial number of requests for records result in failure to receive records, even though the defendants have records, or in the arrival of records too late for use at the trials. (Page 8 and elsewhere)
- (3) By a substantial majority, judges favor a statutory requirement that prosecutors appear in all reckless driving and drunk driving cases and in all cases in which the offender is represented by an attorney. (Page 9)
- (4) Both municipal and State Police believe there would be substantially more convictions if prosecutors were present in all moving hazardous cases. (Page 9)
- (5) An overwhelming majority of the judges believe they should have authority to suspend permits for up to ten days for any moving violation. (Page 12)
- (6) A substantial majority of the judges favor an additional day at the judicial conference for a traffic court seminar. (Page 16)
- (7) "The practice of judges being judges one day and defense attorneys the next is a dichotomy which simply 'doesn't look right' to a number of policemen." (Page 17)
- (8) "The interest of traffic law enforcement will be greatly assisted by having full-time lower court judges and commonwealth's attorneys." (Page 46)

*The laws being enforced.* Numerous specific statutory provisions have been raised for discussion before the Commission and its committees. Our report on this particular area will be confined to the reasoning given for each separate recommendation since, as we have found, there is no one general or easy approach to defining offenses and specifying penalties.

## (2) Needs

To measure Virginia's needs in the enforcement field, we have solicited testimony from representatives of the State's own police, judges, justices of the peace, prosecutors, administrators and the public in extensive working sessions and open hearings.

*Enforcement by the police.* With respect to the State Police, the evaluation of the troopers' activity by the National Safety Council was generally very favorable. The most pressing need which can be projected has been outlined by Colonel Woodson for the Commission as follows:



“According to the National Safety Council, we need 508 additional troopers for normal traffic control, exclusive of the Interstate System. The Highway Department will have 700 miles of the Interstate System completed by the end of the present biennium. If Virginia is to police the Interstate System to the degree that the present toll facilities are policed throughout the Nation, and the problems are the same, we will need 233 troopers for the Interstate System alone. Thus, Virginia needs 741 additional men.”

The Commission believes the State Police cannot afford to lessen either the requirements for or training of troopers to attract men and cannot continue to employ less men than authorized when the future promises a far greater need for troopers than exists even today.

Local police present larger and more difficult problems by reason of their greater numbers and very diversified qualifications, training and pay. Our central concern in this area is for increased training through such schools as the Central Police School already described. The need for training local police goes beyond the field of traffic safety to encompass law enforcement generally. Virginia's State Crime Commission is currently investigating the training of local police from this broader perspective. We would urge that in any program for training local police on a State-wide basis specific training be provided in the field of traffic safety. In addition, it is the consensus of the Commission that State funds which make adequate training for local police available would be well invested.

Questions on enforcement procedures used by State and local police have also been considered. We reviewed the value of enforcement techniques such as the use of marked and unmarked cars and radar. In all these instances, we conclude the psychological and deterrent value of these devices warrants their continued use in a proper manner on a selective basis.

*Enforcement by the courts.* Courts, like police, need training and information on the State's traffic laws and changes in them. This need was reiterated by the judges themselves and ties in closely with the courts' ability to make effective use of existing provisions. A yearly briefing designed to keep those with jurisdiction of traffic offenses abreast of changes in the motor vehicle laws, pertinent case law and procedures is needed to assure uniform handling of traffic offenses throughout the Commonwealth and will be covered in our recommendations.

The need for more flexibility in enforcing vehicle laws was also put forth by judges testifying before the Commission especially in those cases where no revocation or suspension authority is provided by statute. The Commission was persuaded that often a brief suspension of driving privileges can make a far more lasting impression on the violator than any other penalty with the possible exception of jail. Measures to deal with the extreme habitual violator and to render penalty provisions more workable are outlined in our recommendations.

### C. Recommendations and Reasoning

#### (1) The police

\*(1a) Budget authorization should be given to employ an additional 100 State troopers during the coming biennium, and upon approval of the Governor to employ another additional 100 troopers.

The projected need for 741 additional troopers points up the very conservative nature of this proposal. It is this low only because practical

conditions dictate that a higher allotment would simply invite a lessening of standards for employment.

In view of the difficulty of recruiting troopers at this time, we are recommending a definite commitment of State funds for 100 troopers at the coming General Assembly and of funds for an additional 100 troopers if the Governor approves and believes their recruitment feasible.

It is the hope of this Commission that this proposed 200-man increase can be realized and that the following recommendation will assist the State Police to increase the number of qualified State troopers who join and remain with the Department.

\* (1b) Regular, periodic pay increases based on length of service should be instituted for the State Police.

This recommendation is directed not at the amount of salaries per se but at the scaling of increases. Additional consideration should be given to the fact of length of service as a criterion in increasing salaries along the pay scale as one means to attract troopers to a long-term career.

The top of the pay scale for a trooper can be reached in a relatively short period of time covering approximately seven years and a seven-step series of increases. We recommend added increments of 3% of salary for all State Police every fifth year after they reach the top scale pay. Thus if a trooper reaches the top salary of \$7,680 in the tenth year of employment, he would be entitled to an increase of 3% of his current salary in the fifteenth, twentieth years and so forth. For the average trooper with a thirty-year career this recommendation means approximately a 12% pay increase in recognition of length of service. The cost of this proposal is estimated to be \$35,000 for added pay benefits annually.

Repeated comments before the Commission pointed to causes other than recently increased starting salaries as contributing to the shortage of troopers. The war in Vietnam which draws many young men who might otherwise apply, the present retirement system, the short term of the seven-step scale of pay increases and the relatively few slots for promotion were factors cited. We believe a longevity pay program will make long-term service far more desirable and recruiting easier. The suggested program not only means monetary gain while he is working; it means increased retirement benefits as well. We believe the present State Police Retirement System is a sound and fair one and that increased pay with resultant increased retirement benefits will be more to the troopers' advantage than any adjustments in the retirement benefit formula.

\* (1c) The Compensation Board should authorize State reimbursement to localities for mileage accumulated by sheriffs' departments in traffic patrol work under certain conditions.

In addition to our general recommendation expressed above for State support of general training programs for local enforcement personnel, we offer this specific proposal.

Currently localities are not reimbursed for the expense of patrol mileage accumulated by their sheriffs' departments although mileage resulting from going to and from specific calls is reimbursed.

We advocate reimbursement for traffic patrol mileage if the deputy or sheriff has successfully completed prescribed courses of traffic training,

\* Legislation for recommendations starred will be carried in the Legislative Appendix.

approved by the State Police, and if he patrols in uniform and a marked car.

This measure should produce two good results: first, localities will have incentive to encourage their sheriffs and deputies to take training courses; second, traffic patrolling will be increased and more marked cars will be on the highways to deter traffic violations.

(1d) Police should conduct increased spot checks of vehicles and operators' licenses.

The serious problem of trying to deal with drivers who are driving without any license or on an expired or invalid license prompts this recommendation. While we have no figures on the number of motorists driving without a valid operator's or chauffeur's license, we know that 3% of the drivers involved in accidents in Virginia in 1966 had no license, that is 3,228 drivers. We can project this figure to mean that some 36,000 motorists are driving without any operator's or chauffeur's license.

State Police report their spot check program during 1966 reached approximately 251,000 vehicles. They do not conduct checks within any city.

We believe this program to be the most direct approach to find operators who are driving on improper permits and urge both the State Police and local enforcement agencies to expand their programs to this end. The localities should cover spot check programs in their plans to be submitted to the Governor for approval as part of the overall State traffic safety program. We discuss later increased penalties for driving on an invalid license or without a license.

\*(1e) Legislation should be enacted to lessen time spent by State and local police in court testifying to the accuracy of radar equipment in speeding cases.

We are recommending the adoption of legislation designed to make the report sheet signed by both officers checking radar equipment sufficient evidence of accuracy if identified in court by only one of the officers instead of by both as is now required. Time spent in court to provide such testimony is time taken from patrol duties. The signed, routine report should be ample evidence of the accuracy test when presented by one officer.

\*(1f) A uniform traffic ticket should be used throughout the Commonwealth.

We endorse the use of a uniform ticket by all law enforcement agencies throughout the Commonwealth. The State Police currently use a traffic ticket which is utilized by some courts as a warrant and is sent by courts to the Division of Motor Vehicles as the abstract of conviction.

We propose legislation to require all enforcement agencies to use, on and after January 1, 1969, a uniform traffic ticket, approved by the Superintendent of State Police and covering State and local fines, that will serve to meet the record-keeping requirements of the Division as well as the needs of the enforcement agencies themselves.

A multi-copy ticket should ease the work of courts in filing conviction information with the Division. Especially in view of the data processing system now being installed, this step seems especially important to assure

accurate record keeping. This recommendation relates directly to those for plastic operator's licenses and imprinters set out in the section on Motor Vehicle Administration and the combined result should be increased accuracy of records.

\*(1g) Arresting officers should be required to request an abstract of the conviction record of every person charged with a reportable violation and should be able to get such information on a round-the-clock basis from the Division.

It should be a matter of routine procedure that the court and prosecutors have the defendant's or accused's past conviction record available in every case based on a violation reportable to the Division.

We feel this information will be pertinent for the courts as they review each case for sentencing purposes especially in light of our recommendation on the discretionary, brief suspension penalty which follows later in this section.

The current practice on requesting past records varies from locality to locality and has in some instances been discontinued because of inaccuracies or delays in receiving such information in the past. By the proposals in this report and through completion of the data process records system at the Division, we hope that more accurate records will be available more quickly as a general rule.

The Division has estimated the additional annual costs generated by this proposal to be \$60,000.

Also we urge the Division to expedite with all possible speed its plans to operate its records section on a 24-hour, seven day a week basis so that rush inquiries from the police can be promptly answered, and we believe this matter is of such importance that a statutory requirement to this effect is in order.

## (2) The courts

\*(2a) Up-to-date information on changes in the motor vehicle laws, pertinent case law and procedures should be covered in a one-day extra session of the Judicial Conference of Virginia for courts not of record to be organized and supervised by the Executive Secretary of the Supreme Court of Appeals.

The Commission here proposes a means to bring current information on motor vehicle laws and their enforcement before the judges of courts not of record. The members of the Judicial Conference include "the active judge and associate judge, or full-time assistant judge of every municipal, county and juvenile and domestic relations court of the Commonwealth."

We are recommending legislation to provide that all such judges whose jurisdiction reaches motor vehicle law violations have the duty of attending the proposed one-day session each year. The cost of this proposal is estimated to be \$4,000 annually. Also, we recommend the Conference have a manual prepared on the administration and procedures of traffic courts for distribution to these judges for which we suggest \$5,000 be appropriated. Currently judges and Commonwealth's attorneys are sent a digest of new laws and statutory changes after each session of the General Assembly by the Division of Statutory Research and Drafting. It would be of additional benefit if the Division sent this digest to the justices of the peace and city and town attorneys as well. While the digest cannot

focus on traffic law specifically it is of use and should be referred to immediately after each session.

- \* (2b) Every court having jurisdiction over motor vehicle law offenses should have discretion, in any case where the defendant is found guilty of a moving traffic violation, to suspend the defendant's license for a period of up to ten days.

A highly effective penalty in terms of deterrence is the lifting of driving privileges. This is the punishment most fitting for the majority of moving traffic violations to bring home to the defendant sharply what his driving privilege means.

From the testimony of judges and prosecutors and the Highway Research Council's report, we learned there is near unanimity on the preferability of suspended driving privileges over fine or jailing to deal fairly and appropriately with many traffic offenses. In addition, jail sentences are most effective and should be utilized in cases of more serious violations.

Suspension penalties are provided currently in numerous statutes, but not in many minor ones such as following too closely or failure to yield the right of way which are violations companion to many accidents. Giving the courts discretion to impose a brief suspension should afford them much greater leeway to deal with the facts of each case as presented.

There should be a widespread deterrent value in placing this discretion in the courts since to most people a week's loss of the privilege to drive means much more than payment of a ten or fifteen dollar fine.

- \* (2c) Prosecuting attorneys should be required to appear in all contested cases involving reportable violations.

The reason for requiring the prosecutor to appear in contested cases involving reportable traffic violations is two-fold: first, to save the court from having to assume any responsibility for the prosecution of such cases; and second, to provide a source of information and advice to the police on whose testimony such cases are largely predicated.

Since this requirement will place an additional burden on the office of the Commonwealth's Attorney in those localities not already adhering to this practice, we recommend, in addition to specific legislation on this point, the consideration of this added work load in fixing salaries for these officials.

- \* (2d) Defendants should be required to appear in court in cases involving the most serious types of offenses.

Legislation to amend the statutes covering driving under the influence, driving on a revoked or suspended license, hit and run and leaving the scene of an accident to require the defendant to appear in court should be enacted. Many courts now do require appearance in court for these offenses and this should be the uniform procedure throughout the State.

- \* (2e) With respect to traffic violator schools, courts should be given authority to transfer nonresident defendants to a school near his residence if such exists.

The provision (§ 46.1-16.1) which authorizes the establishment of traffic violator schools should be amended to permit their widest possible use.

The amendment we propose will authorize a judge in Norfolk who requires an Arlington resident to attend such a school to require attendance in Arlington if it has a school rather than in Norfolk. This is a simple practical step to encourage maximum use of this effective program.

\*(2f) Judges of the courts not of record should be permitted, as are judges of the courts of record, to amend warrants in their discretion.

This is a procedural point. The recommendation and suggested legislation are designed to afford the courts not of record the same discretion in amending warrants currently available to the courts of record and to obviate the need in the former courts to turn to the Commonwealth's Attorney for an amendment to the warrant. (Reference may be made to the April 5, 1966 Opinion of the Attorney General on this point.)

(2g) We urge passage of legislation to convert the justice of the peace system to an appointive rather than elective basis.

We endorse in principle the legislation introduced as Senate Bill No. 157 in the 1966 Session of the General Assembly. This measure represents a well-considered and extensive revision of the justice of the peace system. A report of the Judicial Council served as the basis for Senate Bill No. 157.

Basically the bill alters the present system by providing for the appointment rather than election of justices of the peace, some reduction in the number of justices and improved qualifications and standards for the justices.

The bill failed to pass during the last Session largely because of the failure to provide for Social Security coverage and payment. We hope these matters can be resolved and the bill given favorable consideration in 1968.

The justice of the peace has impact on highway safety through enforcement of the laws, and improvements in the system can only benefit enforcement. Out-of-state as well as Virginia motorists are brought before the justices on innumerable occasions and their impression of and respect for enforcement relates directly to the quality of treatment afforded by and qualifications of the justices.

\*(2h) A special study should be initiated by the General Assembly to review our lower court system with special emphasis on the desirability and feasibility of a system of full-time judges and prosecutors

One point raised frequently before the Commission and having many ramifications beyond highway safety, concerns the feasibility of full-time lower court judges and prosecutors. We believe this matter should be referred to a special commission for careful study.

Few of the problems raised before the Commission presented greater difficulties than the matter of the part-time judges and Commonwealth's attorneys who act as judge or prosecutor one day and as defense attorney the next. The comments before the Commission of judges and attorneys on this matter were most often critical of this dual role. Our own observations based on public hearings, the testimony of those concerned and the Highway Research Council study on enforcement, all lead us to conclude that highway safety stands to benefit from full-time enforcement officials in the courts as well as on the highway. The ethical difficulties of com-

bining enforcement with active private practice present only one aspect of the problem. Too often, a part-time judge cannot take time or is not compensated to take time to keep abreast of changes in the law that he enforces and of the decisions in other localities. The scope of this problem takes it beyond the State's traffic safety program, but the impact on traffic safety of proper enforcement justifies our recommendation for a comprehensive study of this problem.

The scope of the mandate should be broad so that additional matters bearing on lower court procedures, which involve aspects of law in addition to the motor vehicle provisions, could also be considered, including matters for reciprocity and pretrial arrest and summons procedures.

### (3) Penalties and laws

\*(3a) A special habitual violator law should be enacted to deal with offenders who accumulate records evidencing criminal disregard for motor vehicle laws and to permit permanent revocation of their operators' or chauffeurs' licenses.

The most severe revocation penalty in the law currently pertains to the third conviction for driving while intoxicated. On receiving a record of a third such conviction, the Commissioner of the Division of Motor Vehicles must revoke the defendant's license permanently and it may be restored only after ten years elapse and the licensee formally and successfully petitions a court of record for its restoration (§ 46.1-421).

There are other violations which we believe are equally serious and warrant similar punishment.

The Virginia Association of Insurance Agents, Inc., is to be commended for drafting an habitual offenders bill designed to cover these most serious violations and for widely publicizing throughout the State the need for such legislation. The Commission believes the Association's bill is sound in principle but that certain modifications are desirable to make the proposed legislation of maximum effectiveness. This recommendation, outlined as follows, seeks to accomplish this goal.

Basically, the habitual offender bill provides for permanent revocation of the license of any individual found to be an "habitual offender."

The Division will certify, to the attorney for the Commonwealth of the residence of the individual involved, his record of violations if it shows sufficient convictions have accumulated to bring him within the definition of an "habitual offender."

On information filed by the attorney, it shall be the duty of the court to determine if the record of the individual named shows him to be an "habitual offender."

An "habitual offender" is defined as any individual who accumulates convictions for the following offenses (which offenses are committed within a ten-year period) :

- (1) Three or more voluntary or involuntary manslaughter, homicide by vehicle, driving while intoxicated, driving while impaired, driving on a revoked or suspended license, driving without a license, racing, perjury (in connection with the motor vehicle laws), felony (involving the motor vehicle laws or use of a motor vehicle) or hit and run (involving injury, death or property damage in excess of \$100) offenses; or three or more of any combination of the above; or

- (2) Ten or more speeding, reckless driving or improper driving offenses; or ten or more of any combination of these three and/or any of those listed under (1) above.

These offenses are the most serious and hazardous types of traffic violations. With respect to even improper driving which is perhaps the least serious offense covered, an accumulation of ten such violations is a clear demonstration of the kind of driving which endangers others. It is felt that the improper driving charge has been misused in serious cases where reckless driving would have been the proper charge and this factor adds support for the inclusion of improper driving under the habitual offender provisions.

If the court finds the individual is an "habitual offender", it shall order him not to drive and notify the Division of its order. After ten years elapse, the habitual offender may petition the court of record for restoration of his license.

If one who has been found to be an habitual offender and has had his driving privileges revoked, thereafter drives, he then would be guilty of a further and most serious violation for which the proposed legislation provides a mandatory sentence of from one to five years in the penitentiary.

This is only a summary outline of the legislation proposed. We believe it contains a fair definition of the type of driver who demonstrates culpable disregard for our motor vehicle laws and who cannot learn respect for law from short revocation penalties. If he has accumulated this type of driving record, he will have already most probably had his license suspended. When he goes on to commit the third major or tenth lesser offense, the only remedy left which can protect other motorists is a potentially permanent loss of driving privileges. At some point, we must get the criminally heedless driver off our highways.

- \* (3b) Legislation should be enacted to differentiate homicide by vehicle from manslaughter.

The offense of "homicide by vehicle" should be covered under our law as a lesser included offense within manslaughter charges. This offense would cover the case of a death caused by the defendant's negligent operation of a motor vehicle and carry with it penalties of from three months to one year in jail and license revocation for a period up to one year. The distinction between homicide by vehicle and manslaughter lies in the need to prove criminal negligence under the latter charge.

- \* (3c) The statute covering the offense of "racing" should be broadened to include specifically those arranging for the race.

We suggest an amendment to § 46.1-191 to cover specifically within the offense of racing "anyone planning, participating in or aiding and abetting" racing on our highways. The general prohibition against aiding or abetting the commission of a crime should be made clear and broad in this case when the lives of youngsters are frequently involved and anyone instigating and encouraging their folly must share equal blame with the actual participants.

- \* (3d) The hit and run statute should be amended to provide a specific suspension penalty on the first offense.

Under present law, the penalty for a first conviction under § 46.1-176, which outlines the driver's duty to stop when he is involved in an accident



resulting in death, personal injury or property damage, is confinement in the penitentiary for from one to five years or in jail from 30 days to one year or fine of \$50 to \$5,000 (or a combination of the penitentiary or jail sentence and fine) if the driver did not stop at an accident involving personal injury or death. In solely property damage cases the punishment is that for any misdemeanor.

There is no provision for suspension of the operator's or chauffeur's license under the statutes until the second offense when a second conviction results in mandatory revocation for one year by the Commissioner of the Division of Motor Vehicles under § 46.1-417 and a fourth offense requires the Commissioner to revoke the license for five years under § 46.1-423.2. Under the proposed habitual offender bill, the third conviction will result in permanent revocation.

In this recommendation, we propose that the court be given discretion to suspend a violator's operator's or chauffeur's license for any period up to six months upon a first conviction. This is a most serious offense in and of itself. Too often it serves to mask what may be an equally serious charge such as driving while intoxicated which would mean revocation for one year. By placing discretion in the court to impose a revocation penalty for up to six months, we leave room for dealing with the many possible degrees of seriousness involved in this violation.

\*(3e) The reckless driving statute should be amended to specifically cover highways under construction.

Since the definition of a highway covers roads "open to the use of the public" and since problems have arisen concerning reckless driving on highways which are partially complete but not open to public use, we recommend the reckless driving statute be amended to cover such roads just as church and school premises are covered.

\*(3f) It should be made a misdemeanor to leave keys in a stopped, unattended vehicle.

When a motorist leaves his keys in his car, he invites theft and joyriding. He is making the thief's job easier and also the joyrider's. If his own home were involved, it would be a matter concerning only his own family. But when his car is involved other persons on the highway are endangered.

Car theft accounts for 20% of the major crimes in this country and 50% of the 500,000 vehicles stolen in 1966 were taken by youths under eighteen. Nearly half of those cars stolen had had the keys left in them.

What concerns the Commission is the fact that these cars may be used to commit other crimes and may be used recklessly to the danger of other motorists.

We, therefore, recommend adoption of legislation, similar to the Uniform Vehicle Code § 11-1101, to require motorists to remove their keys from their vehicles when leaving them stopped and unattended. This requirement would not apply to authorized emergency and public utility vehicles when engaged in emergency and maintenance activities. Failure to remove keys would not serve as a basis for civil liability.

\*(3g) The travel of any two vehicles abreast in one lane of traffic should be prohibited.

The present law (§ 46.1-206) on proper travel in marked lanes should be amended to prohibit any two vehicles from being driven abreast in one lane. We are particularly concerned here with motorcycles and the two-fold danger they present: first, when they are driven two abreast in one lane, and second, when one motorcycle passes other vehicles in the same lane. These are dangerous practices which can and should be clearly prohibited.

\*(3h) The penalties for driving on a revoked permit should be made more stringent.

The very serious problem of enforcing the penalty of revocation and suspension of licenses was brought before the Commission by numerous groups including the State Police.

Under existing law the penalties for driving on a suspended or revoked license are jail sentences and fines. We believe the penalties should be expanded to include a further revocation of the defendant's license for the period for which it was initially revoked.

\*(3i) The penalties for the second offense of driving without a license should be made more stringent.

At least 4,228 drivers involved in accidents in Virginia last year had no driver's license. The penalty for this offense is the same as for any other infraction of our motor vehicle laws for which no specific penalty is provided—it is a misdemeanor.

We believe that a second offense of driving without a license cannot be excused or condoned and that it should be treated the same as driving on a revoked permit and punishable by ten days to six months in jail (rather than one to 20 days) and by a fine of from \$100 to \$200 (rather than from \$20 to \$200).

\*(3j) The existing provisions providing for the confiscation of vehicles driven by persons whose licenses are revoked or suspended should be amended to extend the period for confiscation and to permit expeditious return to lienholders and innocent owners by a simpler procedure.

The views expressed before the Commission on the workability and desirability of §§ 46.1-351.1 and 46.1-351.2 covering confiscation of vehicles operated by individuals whose licenses have been revoked or suspended varied between urging outright repeal and amendment.

Because the provisions are relatively recent and the problem of stopping drivers without valid permits from driving is so difficult, we are most reluctant to give up what we believe can be a potentially useful means to that end. The amendments we offer will, we believe, make these provisions more effective.

*First*, the statutes now require confiscation at the time of arrest. The arresting officer frequently cannot find out if the person he is arresting on a different charge is driving on a revoked license until an inquiry is put through to the Division of Motor Vehicles. We would amend the statute to permit confiscation within 30 days of the arrest.

*Second*, to save the Commonwealth the expense of storage, we believe the attorney for the Commonwealth should be given discretion to return the vehicle to an owner or lienholder he believes had no knowledge of the

illegal use of the car pending the outcome of the confiscation proceeding without bond.

\*(3k) In all instances where the Commissioner of the Division of Motor Vehicles is required under Title 46.1 to revoke or suspend an operator's or chauffeur's license, notice of his action should be deemed sufficient if sent by certified mail to the last known address of the licensee on file at the Division.

This recommendation is designed to clarify the responsibilities of the Division and Commissioner with respect to notifying licensees of suspension or revocation of their licenses. The current statutes on hearing provisions contain provisions similar to those proposed here. Since licensees are required by law to advise the Division of any change of address, it is appropriate to permit the Division to rely on the address in its file in mailing notices. By this suggested provision, motorists who drive after their licenses are revoked will be discouraged from ignoring notices of revocation and continuing to drive on revoked licenses. The certificate of the Commissioner on notice having been sent by certified mail should be prima facie evidence of compliance with the notice provisions.

## **XII. PEDESTRIAN SAFETY**

### **A. Overall Goal**

We should have a planned pedestrian program on a State and local level to reduce pedestrian casualties through enforcement of uniform pedestrian regulations, engineering for pedestrian needs, and education of pedestrians.

### **B. Background**

#### **(1) Current programs**

It is quite natural in considering highway safety to think in terms of the motor vehicle rather than of pedestrians. To provide some idea of the magnitude of the pedestrian problem, consider the fact that about 27% of all urban traffic deaths in Virginia in 1966 were pedestrians, and over 13% of rural deaths were pedestrians. In the recent past over 50% of traffic deaths in Richmond were pedestrian fatalities. In 1966 there were 182 deaths and a total of 2,521 pedestrian casualties. The early returns for 1967 indicate that our casualty figures for this year will be substantially higher than in the previous two or three years. With Virginia's population rapidly shifting to urban areas, the problem becomes more critical each year.

Fortunately, due to an intensive educational campaign, pedestrian deaths in Virginia have been relatively static since 1947 (178 deaths) despite the very large increase in automobiles. The fact remains that last year over 16% of our traffic deaths were accounted for by pedestrians.

The following principal characteristics of the pedestrian traffic safety problem should be kept in mind:

1. Nearly 50% of total pedestrian casualties involve children under fifteen years of age.
2. The vast majority of pedestrian accidents result from some action on the part of the pedestrian that can be categorized as either a violation of existing laws or failure to take reasonable precautions.

3. Death records for persons age sixteen and over indicate that over 26% had been drinking.

4. High proportions of pedestrians in urban areas were killed while crossing at locations other than at an intersection. Sixteen percent were killed at intersections where there was no signal.

## (2) Needs

With these factors in mind, it is obvious that the severest aspect of the problem, accidents involving children, is not susceptible to control by laws and law enforcement. We believe that a significant alleviation of this problem can only be achieved by means of a well-planned educational program directed toward *the parents* of children as well as toward the children themselves both at home and in our schools.

At present pedestrian safety is supposed to be covered along with other elements of safety in a safety course under the physical education department. In order to enlarge the scope and effectiveness of present educational programs directed toward this field, the State and communities should take action to institute programs specifically directed at pedestrian safety where needed and to provide both technical and financial support to existing programs in order to increase their effectiveness. This has been a proven method for cutting pedestrian casualties and unremitting education pays off. In such education repetition is essential.

A large proportion of the remainder of accidents is due to disregard of law by both pedestrians and motorists, which must be approached from both the standpoint of education and enforcement. On the whole, our present laws governing pedestrians are good, but need implementation on both the State and local levels.

At the present time, Virginia law does not permit cities and towns, other than cities of the first class, to enact and enforce pedestrian ordinances. All communities should have such ordinances and model ordinances should be provided all localities for the sake of uniformity.

Many of our cities and towns fall below national standards in the area of pedestrian facilities. As indicated before, nearly half of our pedestrian casualties involve children under fifteen. If we do not have adequate sidewalks in our residential areas, then children are going to play in the road. This is the circumstance that sets up many of our pedestrian casualties. While it is not practical to "catch up" on the building of sidewalks throughout the State overnight, *a first step which is strongly recommended by this Commission to the localities is that they require all new subdivision developers to install sidewalks.* In this connection, all new subdivision developers should be required to provide adequate street lighting which will be beneficial in the area of pedestrian safety as well as in the area of general law enforcement. The above proposal represents only a starting point and Virginia should simultaneously devise a plan for catching up insofar as these facilities are concerned throughout the State over a reasonable period of time.

Signs, signals and crosswalks directed toward the pedestrian are essential if we are to properly control and channelize pedestrian traffic. Painted crosswalks and other directional indicators are a relatively inexpensive way of achieving much of this objective. *In both State-controlled areas and within the communities of Virginia every effort should be made to paint crosswalks at every intersection and at every designated mid-block crossing wherever possible.*

### C. Recommendations and Reasoning

- \* (1) The General Assembly should express, through resolution, a legislative policy that each school system should provide adequate instruction from grades one through twelve for pedestrian and bicycle safety.

In addition, as an administrative matter, the State agency charged with highway safety matters should request that PTAs devote one program each year to traffic safety, primarily pedestrian safety. Because only a small fraction of parents attend these meetings, educational material, primarily of the visual type, should be prepared for distribution to all parents.

- \* (2) Legislation is needed to permit all cities, towns and counties to enact and enforce pedestrian ordinances.

The State highway safety agency should then supply model ordinances. Pedestrian traffic has become just as important a factor in the overall traffic safety problem as the vehicle, and the localities should have the right to enact and enforce laws to control and channelize pedestrian traffic much as they do vehicular traffic. Good pedestrian control in these areas will not only have a very beneficial effect upon the pedestrian casualty record, but also will expedite vehicular traffic thus reducing congestion and the probability of vehicular crashes.

- \* (3) Existing legislation governing the obligation of drivers to stop when a painted crosswalk is occupied by a pedestrian should be strengthened and should include mid-block crosswalks.

Present law provides a fine of not less than \$2 nor more than \$25 for failure to yield right of way to pedestrians and for pedestrians who violate the law with respect to crossings. Existing statutes, which clearly cover other aspects of pedestrian crosswalks and the duty of drivers to yield the right of way, should be amended to cover mid-block crosswalks, the authority to establish them and duty of motorists to respect them. The penalty for this type of violation (§ 46.1-236) should be raised to the general misdemeanor level (§ 46.1-16). The laws governing pedestrians and protecting pedestrians are not being enforced with sufficient diligence. It is strongly recommended that all police agencies throughout the State be urged to step up their enforcement in this area.

- \* (4) Legislation should be enacted to make it a misdemeanor for any hitchhiker to stand on any "roadway" when soliciting rides.

"Roadway" as defined in the Code is that portion of a highway improved, designed or ordinarily used for vehicular travel, exclusive of the shoulder. Hitchhiking creates hazards both for the hitchhiker and the motorist. Sudden stops to pick up hikers are dangerous to following traffic and hikers standing in the road create a menace to themselves as well as passing motorists. All communities where large numbers of potential hikers may be found, as at colleges, military posts and factories, should establish off-the-road hiker stations.

\* Legislation for recommendations starred will be carried in the Legislative Appendix.

### **XIII. ENGINEERING**

#### **A. Overall Goal and Background**

The recommendations which follow range across such diverse matters as highway construction practices, maintenance, motor vehicle inspection and radar usage. They are technical questions in large part.

The primary object of these proposals is to achieve the safest possible highways within the confines of available finances and to encourage safe use of our roads.

Background information is given for each proposal as it is discussed.

#### **B. Recommendations and Reasoning**

- (1) The Commission submits certain proposals to the State Department of Highways as recommendations for administrative action.

Highway construction practice bears a close relation to our safety program. The death rate on four-lane undivided highways of 8.2 leaves no doubt that the divided four-lane road with a 5.1 death rate is preferable from our standpoint.

The cost of constructing new four-lane divided highways in urban areas, however, is approximately \$1,000,000 per mile and can be far higher. The cost of highway construction and maintenance generally adds up to enormous appropriations for the State. The Department of Highways estimates the following long-range facts and figures:

- (1) by 1985, vehicle miles traveled on Virginia highways will jump 55% to 34 billion miles of travel;
- (2) by 1985, the number of vehicles owned will reach 2.9 million or 1 million more than today;
- (3) by 1985, our population will increase 40% to approximately 6.1 million;
- (4) by 1985, 75% of that increased population will live in urban areas in contrast to 60% of our population today; and
- (5) for the decade 1975-1985, our highway program will require \$7.6 billion and estimated revenues will be \$3.5 billion leaving \$4.1 billion to be obtained from federal and other sources.

Any recommendations which we offer for improved highway construction and maintenance practices vis-a-vis highway safety must be worked into this larger picture of the growing, shifting demand for roads and financing and construction practicalities.

For this reason we offer the following recommendations, not as legislative proposals, but as matters to be considered administratively on the understanding that we endorse and support these suggestions as proper means to increase the safety factor in the construction and maintenance of our highways:

1. It is recommended the Spot Improvement program to correct high accident locations be continued and expanded. The correction of physical characteristics that create accident prone locations is essential to traffic safety and projects should be carried through to completion as rapidly as possible. The present State program demonstrates the potential in this effort to improve safety. Finances have limited the effort at all levels of

government responsible for streets and highways. In addition to increased financial effort on the State controlled roadways, State financial aid to local jurisdictions to encourage greater effort toward this goal should be considered. *The importance of correcting hazards on our primary and especially on our secondary roads cannot be overemphasized.* We give this aspect of the State's engineering program for highway safety top priority.

2. In constructing the Arterial System and other dual highways, the State often builds a new two-lane road to parallel the existing roadway in order to develop four-lane divided highways at a reasonable cost. We urge consideration be given (if costs are reasonable) to purchasing sufficient right of way at the time the new two-lanes are added to permit another two-lane road to be built in the future. Then the old two-lane road can be used as a service road, rather than regraded, for a better total facility in the future.
3. On primary routes it is recommended that secondary route numbers of intersecting roadways be installed on intersecting roadway warning sign posts in numbers of size that can be read at travel speed on primary routes. This will eliminate the need to stop at intersections to read small route markers and reduce danger of rear end collisions.
4. The State Highway Department indicates it is planning the use of break away posts and supports. This program will greatly reduce injury and damage potential when properly used. The Highway Department is commended for this action.
5. Further research and study of guard rails and barrier medians are recommended in an effort to provide maximum safety. Where economical alternates to guard rail installation such as limited increased grading are available, these are recommended for consideration.
6. Beautification is recommended and encouraged; however, it is recommended that adequate clearance be provided along the edge of the roadway for trees that could result in major fixed object accidents.
7. It is recommended that designs of drainage structures in normal width medians (not extremely wide ones) be studied in an effort to eliminate obstructions that could increase accident severity. For example, make small culverts continuous with inlets designed to minimize obstruction to vehicles out of control.

With respect to Highway Safety Program Standard 4.4.12 covering highway construction and maintenance standards, we have reviewed the final standard with representatives of the Highway Department. In our opinion ease or difficulty of compliance will depend in large measure on the interpretation given the Standard by federal administrators. At present Virginia has in operation programs which cover many areas with which the Standard is concerned: lighting at major Interstate urban intersections, development of skid resistant pavements, improvement of warning signs at roadwork and maintenance projects, elimination of hazards at rail crossings and additional use of break-away signs and impact absorbent guard rails at hazardous locations such as bridges and abutments.

The existence of these programs, which provide evidence of compliance and the intention to comply, leads us to conclude Virginia is in a sound position to meet federal requirements. In addition Virginia has an

added advantage over many states in that 90 percent of our roads are State-maintained and under one administrative agency's jurisdiction while other states have as little as 20 percent of their highways under state jurisdiction.

Finally, we do not believe legislative action is required or desirable to permit or foster compliance with this Standard prior to administrative interpretation since our Highway Department is authorized and, we believe, intends to comply with any reasonable interpretation of it.

\* (2) While the Commission fully endorses Virginia's current motor vehicle inspection program, certain refinements are offered here which should improve our basically sound inspection procedures.

Before setting out the five specific proposals which we are recommending to improve the motor vehicle inspection program, a brief background summary is in order. Virginia's inspection program was initiated in 1932 and it is one of twenty such programs in operation today.

In our investigation we have found that the program is working successfully and that it does contribute significantly to highway safety through the semi-annual inspection of motor vehicles and elimination of numerous defects which create highway hazards.

During 1966, over 3.9 million vehicle inspections were conducted. Nearly 40% of the vehicles inspected were found defective in some respect. During 1965 approximately 50% of vehicles inspected were found to be defective. The high proportion of defective vehicles reflected in these figures indicates the value of the inspection program as preventive action. The decrease in the number of defective vehicles from 1965 to 1966 suggests that vehicles are being better maintained and the requisite two annual inspections may well contribute to this improvement. Our accident and crash figures for 1965 show vehicles known to be defective accounted for 3.7% of the vehicles involved in all crashes and 6% of the vehicles involved in fatal crashes. The relatively low figures here can, we believe, be attributed in considerable part to the effectiveness of our inspection program.

Highway Safety Program Standard 4.4.1 does not involve any new requirements which cannot be dealt with in Virginia administratively. The Standard as finally issued does not require a full inspection program be established but only initiation of a pilot program. In this basic respect, Virginia stands far ahead of the federal program. With regard to the specific requirements for an inspection program under the Standard, Virginia can adapt its current system of inspection by private garages, designated as official inspection stations by the Superintendent of State Police, to meet the requirements issued to date. Adjustments such as those concerning the records kept on inspections by the official inspection stations are matters for administrative regulation, and we are confident that the Superintendent can effectively comply with these requirements.

The cost of this program to the State in 1966 was approximately \$215,000 and we believe it is an investment well spent. The Commission gives full backing to this expenditure and program.

Our five suggestions for improvement in the program are the following:

*First*, the State Police should enforce standards for the conduct of

---

\* Legislation for recommendations starred will be carried in the Legislative Appendix.



inspections in as strict a manner as practicable through frequent checks at approved inspection stations. A standard inspection involves a considerable amount of careful work and we found that there is a definite need to maintain a constant pressure on the stations to ensure complete and proper inspections.

*Second*, we believe consideration should be given by the General Assembly to increasing the \$1 inspection fee paid by motorists to the stations so that the fee will be sufficient to reimburse the stations for conducting adequate inspections. The time and expertise involved in a complete inspection warrant, we believe, careful consideration being given to proposals for an increase which, we understand, will be presented at the coming Session. An inadequate fee inevitably causes the stations to curtail the full inspection in order to avoid losing money and we believe the fee should be adequate to cover an efficient and complete inspection.

*Third*, we recommend that the General Assembly request, by resolution, that the Department of State Police report to the Governor on the feasibility and desirability of establishing training sessions for inspection mechanics. Under present law, the Superintendent of State Police is empowered to "furnish instructions to and supervise official inspection stations" (§ 46.1-318) and the Department must approve mechanics who the stations designate to conduct inspections. It is our thought that there would be definite value in having brief training sessions for inspection mechanics conducted by the State Police for the purpose of thoroughly informing the mechanics of the procedures to be used and points to be covered in official inspections. This report should be made to the Governor by January 1, 1969 for his and the Department's decision on the holding of such sessions. Since this is an administrative question there is no need to delay the report or action on it until the 1970 General Assembly.

*Fourth*, we offer legislation to require junkyards or automobile graveyards to remove inspection stickers from junked cars in light of the practice, brought to the Commission's attention, of stealing stickers from such cars.

*Fifth*, under the Inspection Code of the U.S.A. Standards Institute, as that Code is being revised, a requirement to inspect for minimum tire tread depth is being introduced. It is expected that these standards will serve as the basis for amplification of the federal standard on motor vehicle inspection and this important aspect of vehicle safety should be covered under our inspection laws and procedures. The legislation we propose will prohibit driving any car or truck with a tire having a tread depth of less than 1/16 inch as measured in any two adjacent grooves at three equally spaced intervals around the circumference of the tire or with a tire with tread wear indicators contacting the road at any two adjacent grooves at three equally spaced intervals around the circumference of the tire, and further will provide for inspection of tires for such tread depth.

\* (3) We recommend that the sale of and winter use of studded tires be made legal for a two-year trial period.

Virginia is the only State in this immediate vicinity which still retains a prohibition on the sale and use of studded tires on passenger cars during the winter months. Arizona, Georgia, Hawaii, Louisiana, Mississippi, Oklahoma, South Carolina and Texas are the only other states in the nation which prohibit such tires. The origin of this prohibition was the Uniform Vehicle Code and a section which was adopted long before today's studded tires were manufactured and which prohibits metal cleats

and protuberances generally. It appears to the Commission that the continued blanket prohibition against the sale or use of such tires in Virginia works an unfair restraint on our motorists since there is no attempt made to enforce this prohibition against out-of-State motorists in Virginia.

We recommend that the sale and use of studded tires be legalized with the conditions (1) that the maximum stud protuberance be  $\frac{1}{16}$ th of an inch, (2) that the studs may not take up an excess of 3% of the tire's contact area with the road surface, (3) that studded tires not be used on vehicles of a weight in excess of 10,000 pounds, and (4) that their use be limited to the time between October 15 and April 15 each year for a two-year trial period.

The only serious objection raised to the use of such tires in Virginia is their possible effect on pavement surfaces. We have reviewed studies on pavement wear and find that the results of the studies appear to depend in large part on test conditions and that the studies reflecting most pavement wear were apt to have been conducted on a short-run and high-frequency stop and start basis. We believe the two-year trial test period will give our Highway Research Council a needed opportunity to test results under conditions of actual use.

The value of the studs as a means to increase the stopping ability of vehicles has been borne out in several tests, and our own Highway Research Council in its report submitted to the Commission February 1967 concluded that "when studded tires are employed on a vehicle the cornering, traction and stopping ability of a car on ice or hard packed snow are enhanced."

The Council report reached a basic conclusion that the overall wear on highway surfaces could, however, be "great, especially in view of the bare pavement policy and the use of fine sand deslicking mixes." We think that the only fair method to test the Council's conclusion is a trial period of use and actual road tests. It is doubted that many Virginians outside of those areas with the most snow will invest in the comparatively expensive studded tire, and we feel those individuals should be given the opportunity to test and use studded tires in view of their value in reducing stopping distances and the fact that out-of-State motorists are using them in Virginia.

\* (4) The provisions of the motor vehicle laws relevant to speed limits in business and residential districts should be clarified to facilitate the application and enforcement of speed limits in these areas.

We propose legislation to amend § 46.1-1, which contains the definitions of business and residence districts and § 46.1-193 which provides generally for a twenty-five mile speed limit in such districts, to meet several problems which have arisen in the application of these sections and thereby to promote easier enforcement of our speeding laws.

In § 46.1-1, we propose two changes. First, we suggest redefining business districts (subsection (1) ) in terms of "property contiguous to a highway" rather than in terms of "frontage" and by looking at the property as it lies "along the highway." For purposes of applying § 46.1-193's general twenty-five mile per hour speed limit for such districts, we believe it simpler and sounder to judge the area in terms of the portion of property devoted to business purposes contiguous to the highway rather than in terms of frontage which has taken on technical aspects of access. The character of the area as viewed by a motorist is important for this defini-

tion, and the fact that a factory faces a side road rather than having direct access to the highway does not change the fact that the motorist is driving through a built-up area with high traffic potential which may enter from side streets and driveways. Thus if seventy-five percent of the property for a distance of 300 feet along the highway is used for business purposes, we believe the motorist is in an area where the twenty-five mile limit is appropriate in the absence of a traffic study which demonstrates the contrary. Second, we suggest redefining residence districts (subsection (24) ) in a manner similar to the above and propose the additional amendment that the "land improved for dwelling purposes" should be counted as well as the actual dwelling in reaching the seventy-five percent figure on which the definition centers. In our fast-growing suburban areas, the home and yard is a dwelling unit in many ways, and a neighborhood reaches its development when all property is improved. Traffic in a fully developed neighborhood, even though the average lot may be three times as large as the house, will involve local and pedestrian traffic and should generally be considered residential for speed limit purposes.

In § 46.1-193, we propose two changes. First, a technical amendment to subsection (1) (h) is suggested to spell out the intent that the twenty-five mile per hour limit for business and residence districts applies in such districts in cities and towns although elsewhere in cities and towns the limit is generally thirty-five miles per hour. Second, this section provides in subsections (2) (b) and (3) that a minimum speed can be posted or a greater or lesser speed limit can be posted on the basis of "an engineering and traffic investigation." The word engineering, standing by itself has created some problems regarding just what type of study is contemplated. We suggest "traffic engineering" is the proper more descriptive phrase now that the traffic engineering profession has established itself.

In sum, these amendments are offered to simplify and update these important speed limit provisions.

\* (5) The requirement for posting signs that radar may be in use as a prerequisite for conviction should be revised.

As § 46.1-198 now reads, signs warning that radar equipment may be in use must be posted between the State line and the point of violation and outside cities and towns over 3,500 population on the highway for a valid arrest in a radar case. The section stipulates a prima facie presumption that such signs are in place. The section also imposes a similar posting requirement on cities and towns to place such signs at or within 300 feet outside their boundaries for valid arrests under local radar ordinances.

We believe (1) that the public is very aware of the possible use of radar in Virginia today if they were not in 1954 when this section was first enacted and (2) that an otherwise valid arrest on a charge as serious as speeding should not be jeopardized on this type of technical requirement. Radar today is a valid enforcement tool and not as the section now implies a trap for an unwary driving public.

An additional objection to the present law is the requirement that cities and towns having ordinances paralleling § 46.1-198 must post signs either on their boundary lines or in adjacent jurisdictions. Boundary line signs are already numerous. The speed limits, city name and population and other information is given by boundary signs. A motorist can read only so much, and we believe it more important that he see the speed limit signs than radar warnings.

Sign posting in adjacent jurisdictions also presents potential problems and may create some friction between localities.

Most importantly, we believe radar warning signs should be posted at frequent intervals as a deterrent measure. Their placement should, however, be divorced from technical requirements hinging on the validity of the arrest. Radar signs should be placed where, in the opinion of the Highway Department or locality having jurisdiction, they will act as a deterrent to speeders.

We suggest amendments to § 46.1-198 to remove those provisions requiring signs to ensure valid arrests and to require only that such signs be placed near the State boundary on interstate and primary highways to notify out-of-State motorists that radar is used in Virginia.

(6) Virginia should sponsor the participation of all our political subdivisions having jurisdiction over their highways in an annual traffic safety inventory program.

In 1966 the National Safety Council announced that it was discontinuing the processing of city traffic safety inventories on a cost-free basis and that it would undertake this service in the future only on the request of the Governor of a state and upon agreement that the Council would be paid for the cost of the service. The Council will continue to provide its State inventory analysis program, in which Virginia has participated and will do so in the future, free of cost.

By processing these inventories of statistics and information relevant to traffic safety, the Council performs the valuable service to the states and to municipalities of making available to them a basis for a comparison of their efforts on traffic safety, a measuring rod for their progress and a source of information on working programs in other localities.

We recommend that Virginia assume its share of the Council's expenses in processing local inventories and appropriate approximately \$36,000 to cover the expenses incurred for evaluation of each year's inventory.

In 1966, thirty-five Virginia cities and towns participated in the inventory program. Fifty Virginia cities and towns are eligible and the \$36,000 appropriation is estimated to be sufficient to pay for the participation of all fifty. In addition, we believe Arlington and Henrico, urban counties which have elected to maintain their own roads, should participate as do the municipalities.

The adoption of the National Highway Safety Act of 1966 makes the inventory program even more valuable. Under the Act, the Governor is charged with responsibility for both the State's and localities' highway safety programs. The inventory analysis is the only tested appraisal available for measuring the performance of localities as well as the State on a comparison basis both with respect to comparable localities and with respect to their own past performance. This type of evaluation will be of real use in developing the new and expanded programs called for by the Act.

We believe consideration should be given to biennial rather than annual inventories for the localities. This would permit the gathering of information, we believe, at frequent enough intervals for useful comparisons to be made and also give an intervening year to digest the information gathered and the inventory analysis. We offer this suggestion for consideration by those administering the State's highway safety program.

Legislation requiring local participation in the inventory program is not necessary since the Governor can, with his authority under the federal act to approve each local program, designate participation as a prerequisite to approval.

- \* (7) The existing provisions governing the issuance of permits to gain access to State highways should be expanded to cover industrial and subdivision development and to provide a general setback requirement.

Under current law, two provisions, §§ 33-116 and 33-116.1, regulate the issuance of permits by the State Highway Commissioner to private homeowners and commercial establishments for ingress and egress to State-maintained highways by "safe and convenient means."

Our recommendation and the legislation we propose are designed to expand these provisions in several respects. First, we would cover not only the private home owner and commercial establishment, but industrial development and subdivision development. The need to include these categories is of at least equal status to those covered by the existing law. Both categories can contribute substantial amounts of traffic which may involve all the hazards of vehicles entering, leaving and turning on the highway.

Second, we believe the section should be expanded to permit the Commissioner to designate a service road as the type of suitable access road in those instances where warranted, e.g., subdivision developments. The suggested amendment provides that the Highway Commissioner may as a condition to granting a permit for access provide that a service road is the safe and suitable connection to the highway. If such a road is required, the developer or industrial complex would have to provide the road at its own expense and maintain it until acceptance into the public highway system.

Third, a general setback requirement of fifty feet from the edge of the State highway right-of-way on the primary system and thirty-five feet from the edge of the State highway right-of-way on the secondary system is added, with the proviso that variances can be granted where the surrounding conditions obviate the reasonableness of the requirement. For example, if all existing buildings are built within twenty feet of the right-of-way, there would be no benefit to the public in requiring a new building to be set further back. The safety consideration here is to provide motorists with sufficient view to judge turns on and off the road and to see oncoming and intersecting traffic.

- \* (8) In order to assure development of State-maintained secondary roads in a sound manner consistent with highway safety, the State Department of Highways should be given statutory authority with respect to the development of subdivisions in those counties not having effective subdivision control ordinances.

In many counties within Virginia, subdivisions are being developed in accordance with sound subdivision control ordinances which adequately cover the design and construction of streets and related questions bearing on highway safety. In other counties, however, no effective subdivision development control exists, and the State is faced with the difficult problem of having either to accept into the secondary system roads which are not designed up to State standards or leave the residents of the subdivision with unmaintained and inadequate roadways.

This dilemma means currently either that the general public is called upon for an excessive expenditure to maintain, replace or reconstruct these roads or that subdivision dwellers are left with inadequate roads. In either case, highway safety suffers. In the former case, highway funds are wasted in the correction of inadequate roads when the developer at a proper cost could have initially constructed well-designed streets. In the latter case, the residents of the area are serviced by poor roads and members of the public from outside the subdivision using such roads are similarly ill-treated.

The legislative proposal which we offer creates a mechanism for applying State-wide minimum standards and regulations to subdivision development as a means to solve this dilemma. The regulations which we offer will take effect only in the various counties not currently performing this legislative function. It is the hope of the Commission that this legislation will, in addition to contributing directly to sound street construction, encourage local initiative and action to assume responsibility for the control of subdivision development.

In brief, the proposal calls for the State Department of Highways to assume what otherwise would be a local function to review and approve subdivision plans and development in a manner to assure that they are consistent with accepted State secondary highway construction practices. As one feature of this proposal the State Division of Planning would be charged with the duty of supplying a model subdivision control ordinance to the localities for their use.

#### XIV. CONCLUSION

We wish to express the profound appreciation of the Commission to the numerous individuals and government officials without whose time, work and full cooperation, freely and generously given, it would have been impossible to conduct this study of Virginia's traffic safety needs.

Respectfully submitted,

\*C. Harrison Mann, Jr., *Chairman*  
Hunter B. Andrews, *Vice-Chairman*

J. David Brothers

\*Leslie D. Campbell, Jr.

Julian F. Carper

S. S. Hellman

Elmer B. Hurst

Cullen Johnson

Overton Jones

\*Irving B. Kline

Talfourd H. Shomo

G. G. Singleton

Kenneth W. Smith

J. R. Snoddy, Jr.

Robert W. Spessard

W. Carrington Thompson

\*J. Theron Timmons

\*George M. Warren, Jr.

Ruth O. Williams

\* The signatures of those members whose names are preceded by an asterisk(\*) are accompanied by the Statements which follow.

*\*Statement of Messrs. Kline and Mann*

We do not agree with the recommendation for increasing truck speeds on four-lane highways. We see no relation between increasing truck speeds and greater traffic safety. In fact, just the opposite. It is common knowledge and experience that a large portion of trucks already exceed the present speed limits and increasing their permissible speed will only license them for even higher speeds. Higher speeds increase the potential of these heavy vehicles for complete destruction when they are involved in accidents on the highways.

*\*Statement of Messrs. Kline and Timmons*

The Commission, in considering every recommendation, asked itself the question: "Will its cost be in reasonable proportion to the result to be accomplished?"

We question whether there is sufficient proof that reflectorized license plates will be worth the estimated cost of \$880,000 net increase.

The Research Department of the University of Illinois, dealing with reflectorization, has not released any facts based on reducing rear end collisions. This is the crux of this situation, in our opinion. It is questionable whether it will prevent accidents. So far, there has been no scientific study presented, that we have been able to find, to show any value.

Dr. Haddon, associated with the United States Government, who has issued the National Standards, has not included reflectorized plates in his recommendations and reports.

Therefore, we are abstaining from approving this portion of the report.

Moreover, we believe that many of the members of the General Assembly will come to the conclusion that the expenditure of nearly one and a half million dollars could be better directed toward improving traffic safety on our highways.

*\*Statement of Senators Campbell and Warren*

We concur in the objectives of the report and in the majority of the Commission's recommendations but reserve the right to depart from the Commission's specific legislative proposals during the Session of the General Assembly.

## APPENDIX I

### CHAPTER 708

*AN ACT to create the Virginia Traffic Safety Study Commission; to define its powers and duties; and to appropriate funds therefor.*

(H 724)

Approved April 6, 1966

Whereas, the growth in vehicle travel on our streets and highways has created the greatest social problem of our times; and

Whereas, the growth in vehicle registration and use during the years just ahead will sorely tax the capabilities of State and local agencies responsible for public safety and for the administration of motor vehicle and traffic laws; and

Whereas, it is essential to cope with the increasing toll of deaths, injury, and economic loss from traffic and to that end State planning of traffic safety functions should be placed on the same factual long range basis as the planning of highway facilities and be reviewed periodically to reflect changing conditions and needs as they develop; and

Whereas, the Congress of the United States has requested in Senate Joint Resolution eighty-one voluntary action on the part of the several states by January one, nineteen hundred sixty-eight providing that "each state should have a highway safety program, approved by the Secretary (of Commerce), designed to reduce traffic accidents on the federal-aid system. Such highway safety program should be in accordance with uniform standards approved by the Secretary and should include, but not be limited to, provisions for an effective accident records system, and measures calculated to improve driver performance, vehicle safety, highway design and maintenance, traffic control, and surveillance of traffic for detection and correction of high or potentially high accident locations", now, therefore,

Be it enacted by the General Assembly of Virginia:

1. § 1. There is hereby created a Commission of nineteen members to be known as the Virginia Traffic Safety Study Commission. The membership of the Commission shall be appointed by the Governor.

§ 2. The Governor shall designate the Chairman of the Commission. Members of the Commission shall be reimbursed their expenses incurred in the performance of their duties, but shall be paid no other compensation.

§ 3. The Virginia Commission shall make a comprehensive study of State and local services bearing on traffic study to (a) provide a factual basis for a long range planned improvement of State and local traffic safety functions; (b) develop through joint planning and fact finding a better public appreciation for State and local safety services and their benefits; (c) guide the General Assembly and administrative officials in keeping pace with future growth of highway transportation safety problems as well as provide detailed recommendations for improvement in safety services to Virginia motorists and a plan of priorities for implementing these recommendations within the foreseeable future.

§ 4. In the development of a blueprint for a sound long range safety program, the Commission, through the State Highway Commissioner and other public officials of the State, is authorized to enter into agreements with private and federal agencies to assist in the planning and studies



contemplated by this resolution. The Commission may employ consultants and full-time personnel, and rent office space, if needed, in pursuit of its task.

§ 5. In making such a study the Commission shall analyze and evaluate, among other governmental functions relating to traffic safety, the following: Driver education and driver improvement; driver licensing; traffic safety promotion; safety and financial responsibility; highway supervision and enforcement; accident reporting and use of accident records; local-state coordination; highway engineering for safety and traffic operation; the courts' relationship to law enforcement.

§ 6. The Commission may accept and expend gifts, grants and donations from any and all sources and persons.

§ 7. For the expenses of the Commission and its work there is hereby appropriated from the general fund of the State treasury the sum of five thousand dollars, and there is further appropriated to it all gifts, grants and donations received for such purpose.

§ 8. All agencies of the State shall assist the Commission in its study.

§ 9. The Commission shall complete its study and report to the Governor and the General Assembly not later than September one, nineteen hundred sixty-seven.

2. An emergency exists and this act is in force from its passage.

## APPENDIX II

Listed below are the members of the seven study committees which conducted basic research and submitted preliminary reports to the full Commission. Individuals serving on both a study committee and the Commission are indicated by an asterisk (\*) preceding their names.

### *Public Information Committee*

\*C. Harrison Mann, Jr., Chairman  
Member of the House of Delegates  
Arlington

Mrs. Wesley W. Cooper, Safety Chairman  
Federation of Women's Clubs  
Arlington

M. G. Harp  
Service Station Operator  
Petersburg

H. Lee Kanter  
Attorney at Law  
Norfolk

Robert L. Marshall, Associate Executive Secretary  
National Commission on Safety Education  
National Education Association  
Washington, D. C.

W. Hutchings Overbey, Judge  
Campbell County Court  
Rustburg

John J. Pickeral  
Farmer  
Winchester

Mrs. W. Goode Robinson  
Virginia Federation of Home Demonstration Clubs  
Lynchburg

Hamilton Shea  
Gilmore Broadcasting Corporation  
Harrisonburg

\*George G. Singleton  
Virginia State College  
Petersburg

*Uniform Laws Committee*

\*Leslie D. Campbell, Jr., Chairman  
Member of the Senate of Virginia  
Ashland

William R. Blandford  
Commonwealth's Attorney, Powhatan County  
Powhatan

Douglas V. Bralley, Vice-President  
Bralley-Willett Tank Lines, Inc.  
Richmond

Paul D. Brown, Judge  
Arlington County Circuit Court  
Arlington

Frederick T. Gray  
Member of the House of Delegates  
Chesterfield

William H. Hodges  
Member of the Senate of Virginia  
Chesapeake

\*Elmer B. Hurst  
Richmond Area Safety Council, Virginia Electric and Power Company  
Richmond

\*J. Theron Timmons  
Tidewater Automobile Association  
Norfolk

*Driver Education Committee*

\*Robert W. Spessard, Chairman  
Member of the House of Delegates  
Roanoke

William M. Bennett  
Virginia State College  
Petersburg

Shearer C. Bowman, Jr., President  
Virginia Highway Users Association  
Richmond

\*Julian F. Carper  
Virginia State AFL-CIO  
Richmond

Robert W. Drechsler  
Shomo & Lineweaver Insurance Agency, Inc.  
Harrisonburg

Beverly T. Fitzpatrick, Judge  
Municipal Court  
Roanoke

Norman Key, Executive Secretary  
National Commission on Safety Education  
National Education Association  
Washington, D. C.

*Motor Vehicle Administration Committee*

\*Hunter B. Andrews, Chairman  
Member of the Senate of Virginia  
Hampton

John D. Haire, Jr., President  
Delta Oil Sales and Materials Companies  
Petersburg

C. F. Hicks  
Attorney at Law  
Gloucester

\*Cullen Johnson  
Richmond Area Safety Council, Virginia Farm Bureau  
Richmond

Philip E. Montano, Public Affairs Manager  
Allstate Insurance  
Roanoke

\*Talfourd H. Shomo  
Shomo & Lineweaver Insurance Agency, Inc.  
Harrisonburg

James T. Wadkins, Managing Director  
Richmond Area Safety Council  
Richmond

*Incompetent Drivers Committee*

\*W. Carrington Thompson, Chairman  
Member of the House of Delegates  
Danville

\*J. David Brothers, President  
American Trucking Associations, Inc.  
Richmond

Edward T. Caton, III  
Member of the House of Delegates  
Virginia Beach

Ernest P. Gates, Judge  
Chesterfield County Circuit Court  
Chesterfield

Charles W. Gunn, Jr.  
Member of the House of Delegates  
Lexington

Harry N. Gustin  
Attorney at Law  
Norfolk

\*S. S. Hellman, Chief Rescue Officer  
Virginia Association of Rescue Squads, Inc.  
Colonial Heights

John R. Saunders, MD  
Westbrook Psychiatric Hospital  
Richmond

*Enforcement Committee*

\*Overton Jones, Chairman  
Associate Editor, Richmond Times-Dispatch  
Richmond

Robert C. Bowman  
Reynolds Metals Company, former State Trooper  
Richmond

Lyman C. Harrell, Jr.  
Member of the House of Delegates  
Greensville

Dale J. Howard  
West Virginia Pulp and Paper Company  
Covington

H. S. Hulme, Jr.  
Highway Division, Arlington County  
Arlington

D. W. Murphey, Judge  
Chesterfield County Court  
Chesterfield

Robert E. Quinn, Judge  
Traffic and Civil Court, City of Hampton  
Hampton

Jeptha S. Rogers  
International Association of Chiefs of Police, Inc.  
McLean

\*J. R. Snoddy, Jr.  
Commonwealth's Attorney, Buckingham County  
Dillwyn

\*Ruth O. Williams, Judge  
Patrick County Court  
Stuart

*Engineering Committee*

\*George M. Warren, Jr., Chairman  
Member of the Senate of Virginia  
Bristol

J. W. Bonniville  
Traffic Engineer, City of Chesapeake  
Chesapeake

S. Walter George, Jr.  
Division Safety Engineer, Virginia Electric and Power Company  
Norfolk

John T. Hanna  
Traffic Engineer, City of Richmond  
Richmond

\*Irving B. Kline, President  
Kline Chevrolet Sales Corp.; Director, Virginia Safety Association  
Norfolk

\*Kenneth W. Smith  
Director of Traffic, City of Alexandria  
Alexandria

Clifton Stoneburner, Director  
Department of Transportation, Arlington County  
Arlington

R. Reid Young, Jr.  
Attorney at Law  
Martinsville

### APPENDIX III

U. S. DEPARTMENT OF TRANSPORTATION  
Federal Highway Administration  
National Highway Safety Bureau  
Washington, D. C. 20591

June 27, 1967.

Highway Safety Program Standard 4.4.1

#### *PERIODIC MOTOR VEHICLE INSPECTION*

##### *Introduction*

Until recently there was very little firm evidence to support the reasonable supposition that State inspection systems contribute to highway safety. This deficiency has now been overcome, at least in part. Recent research demonstrates significant differences in State motor vehicle accident death rates associated with inspection programs. Although much more specific information is needed, especially with respect to the extent to which various kinds of inspection contribute to the overall results, it is clear that the inspection of motor vehicles by the States has an important place in highway safety.

##### *Background*

We will obviate the value of every program element involved in this effort if State safety programs do not include vehicle inspection requirements. . .

Report No. 1700, House of Representatives, 89th Congress, 2d Session, July 15, 1966, p. 12.

. . . For example: We know today that only 21 States have legislation requiring periodic inspection of vehicles. General experience indicates that vehicles inspected are more often than not deficient in components that are important to safety.

Report No. 1302, United States Senate, 89th Congress, 2d Session, June 23, 1966, p. 6.

*Purpose*

To increase, through periodic vehicle inspection, the likelihood that every vehicle operated on the public highways is properly equipped and is being maintained in reasonably safe working order.

*Standard*

Each State shall have a program for periodic inspection of all registered vehicles or other experimental, pilot, or demonstration program approved by the Secretary, to reduce the number of vehicles with existing or potential conditions which cause or contribute to accidents or increase the severity of accidents which do occur, and shall require the owner to correct such conditions.

- I. The program shall provide, as a minimum, that:
  - A. Every vehicle registered in the State is inspected either at the time of initial registration and at least annually thereafter, or at such other time as may be designated under an experimental, pilot, or demonstration program approved by the Secretary.
  - B. The inspection is performed by competent personnel specifically trained to perform their duties and certified by the State.
  - C. The inspection covers systems, sub-systems, and components having substantial relation to safe vehicle performance.
  - D. The inspection procedures equal or exceed criteria issued or endorsed by the National Highway Safety Bureau.
  - E. Each inspection station maintains records in a form specified by the State, which include at least the following information:
    1. class of vehicle
    2. date of inspection
    3. make of vehicle
    4. model year
    5. vehicle identification number
    6. defects by category
    7. identification of inspector
    8. mileage or odometer reading
  - F. The State publishes summaries of records of all inspection stations at least annually, including tabulations by make and model of vehicle.
- II. The program shall be periodically evaluated by the State and the National Highway Safety Bureau shall be provided with an evaluation summary.

## Highway Safety Program Standard 4.4.2

### *MOTOR VEHICLE REGISTRATION*

#### *Introduction*

Motor vehicle registration procedures need to be improved and adequate records systems developed so that vehicle ownership can be identified rapidly and efficiently for investigative, law enforcement, and other operational and research purposes. Central systems for recording are available in some States, but there is a general need for improvement.

#### *Background*

. . . it is obvious that a single, central motor vehicle registration and titling system in each State, designed to fully and accurately describe each vehicle and its owner is essential as a control mechanism in any safety program.

In a society as extremely mobile as ours, the need to be able rapidly to identify vehicle ownership is paramount. Some States have no titling system at all, and vehicle registration is limited to license plate numbers assigned to named individuals. Others have fairly comprehensive central, cross-referenced registration and titling systems. Expanded and set up electronically, such a system would make it possible to identify a vehicle by as simple a process as the license number or as remote a process as, perhaps, its color and one or more of its exterior design characteristics. Vehicle registration is an indispensable tool to investigation and law enforcement.

Report No. 1700, House of Representatives, 89th Congress, 2d Session, July 15, 1966, pp. 11 and 12.

#### *Purpose*

- I. To provide a means of identifying the owner and type, weight, size and carrying capacities of every vehicle licensed to operate in the State, and to make such data available for traffic safety studies and research, accident investigation, enforcement, and other operational uses.
- II. To provide a means for aggregating ownership and vehicle information for: (a) accident research; (b) planning and development of streets, highways and related facilities; and (c) other operational uses.

#### *Standard*

Each State shall have a motor vehicle registration program, which shall provide for rapid identification of each vehicle and its owner; and shall make available pertinent data for accident research and safety program development.

- I. The program shall be such that every vehicle operated on public highways is registered and the following information is readily available for each vehicle:
  - A. Make
  - B. Model year
  - C. Identification number (rather than motor number)

- D. Type of body
  - E. License plate number
  - F. Name of current owner
  - G. Current address of owner
  - H. Registered gross laden weight of every commercial vehicle
- II. Each program shall have a records system that provides at least the following services:
- A. Rapid entry of new data into the records or data system
  - B. Controls to eliminate unnecessary or unreasonable delay in obtaining data
  - C. Rapid audio or visual response upon receipt at the records station of any priority request for status of vehicle possession authorization
  - D. Data available for statistical compilation as needed by authorized sources
  - E. Identification and ownership of vehicle sought for enforcement or other operation needs
- III. This program shall be periodically evaluated by the State, and the National Highway Safety Bureau shall be provided with an evaluation summary.

#### Highway Safety Program Standard 4.4.3

### *MOTORCYCLE SAFETY*

#### *Introduction*

It is clear that there are many actions which can be taken to reduce significantly deaths and injuries from motorcycle accidents. Every State should have a program specifically related to motorcycle operation including requirements for licensing, inspection and safety equipment.

#### *Background*

Deaths and injuries from motorcycle accidents doubled between 1963 and 1965. This fact is particularly alarming when it is understood that most of those killed and injured were young people under the age of 25. Motorcycle registrations have jumped from 574,080 in 1960 to 1,914,700 in 1966. By 1970 the annual increase is expected to reach one million per year. Motorcycle safety takes on grave dimensions in view of the fact that since 1960 the rate of motorcycle fatalities has increased at about the same rate as the number of motorcycles.

#### *Purpose*

To assure that motorcycles, motorcycle operators and their passengers meet standards which contribute to safe operation and protection from injuries.

#### *Standard*

For the purposes of this standard a motorcycle is defined as any motor-driven vehicle having a seat or saddle for the use of the rider and designed to travel on not more than three wheels in contact with the



ground, but excluding tractors and vehicles on which the operator and passengers ride within an enclosed cab.

Each State shall have a motorcycle safety program to insure that only persons physically and mentally qualified will be licensed to operate a motorcycle; that protective safety equipment for drivers and passengers will be worn; and that the motorcycle meets standards for safety equipment.

- I. The program shall provide as a minimum that:
  - A. Each person who operates a motorcycle:
    1. Passes an examination or reexamination designed especially for motorcycle operation.
    2. Holds a license issued specifically for motorcycle use or a regular license endorsed for each purpose.
  - B. Each motorcycle operator wears an approved safety helmet and eye protection when he is operating his vehicle on streets and highways.
  - C. Each motorcycle passenger wears an approved safety helmet, and is provided with a seat and footrest.
  - D. Each motorcycle is equipped with a rear-view mirror.
  - E. Each motorcycle is inspected at the time it is initially registered and at least annually thereafter, or in accordance with the State's inspection requirements.\*
- II. The program shall be periodically evaluated by the State for its effectiveness in terms of reductions in accidents and their end results, and the National Highway Safety Bureau shall be provided with an evaluation summary.

#### Highway Safety Program Standard 4.4.4

##### *DRIVER EDUCATION*

###### *Introduction*

There is a national need for the improvement of public and private driver education courses and for making them more widely available. Higher standards of classroom and behind-the-wheel instruction are of central importance, together with the resources required to implement such standards. Also needed is the development of programs for dealing with the remedial training of problem drivers.

###### *Background*

Section 402(b)(1) The Secretary shall not approve any State highway safety program under this section which does not—

(E) provide for comprehensive driver training programs, including (1) the initiation of a State program for driver education in the school systems or for a significant expansion and improvement of such a program already in existence, to be administered by appropriate school officials under the supervision of the Governor as set forth in subparagraph (A) of this paragraph; (2) the training of qualified school instructors and their certification; (3) appropriate

---

\* See Periodic Motor Vehicle Inspection standard

regulation of other training schools, including licensing of the schools and certification of their instructors; (4) adult driver training programs, and programs for the retraining of selected drivers; and (5) adequate research, development and procurement of practice driving facilities, simulators, and other similar teaching aids for both school and other driver training use.

Highway Safety Act of 1966 (23 USC)

In addition to the driver education courses given in public schools, privately operated commercial driver training schools exist in most States and are controlled by regulation in about half of the States. Obviously, the option for both students and adults to obtain driver training through private means should be available, provided the quality of the training is required to be maintained at a prescribed level.

Report No. 1700, House of Representatives, 89th Congress, 2nd Session, July 15, 1966, p. 9.

*Purpose*

To insure that every eligible high school student has the opportunity to enroll in a course of instruction designed to train him to drive skillfully and as safely as possible under all traffic and roadway conditions.

To insure that commercial driver training schools achieve and maintain a corresponding level of instruction for beginning drivers with recognition of differences between the needs of adults and adolescents.

To provide education courses offering driving instruction to adults.

*Standard*

Each State, in cooperation with its political subdivisions, shall have a driver education and training program. This program shall provide at least that:

- I. There is a driver education program available to all youths of licensing age which:
  - A. Is taught by instructors certified by the State as qualified for these purposes.
  - B. Provides each student with practice driving and instruction in at least the following:
    1. Basic and advanced driving techniques including techniques for handling emergencies.
    2. Rules of the road, and other State laws and local motor vehicle laws and ordinances.
    3. Critical vehicle systems and subsystems requiring preventive maintenance.
    4. The vehicle, highway and community features:
      - a. that aid the driver in avoiding crashes,
      - b. that protect him and his passengers in crashes,
      - c. that maximize the salvage of the injured.
    5. Signs, signals, and highway markings, and highway design features which require understanding for safe operation of motor vehicles.
    6. Differences in characteristics of urban and rural driving including safe use of modern expressways.
    7. Pedestrian safety.

- C. Encourages students participating in the program to enroll in first aid training.
- II. There is a State research and development program including adequate research, development and procurement of practice driving facilities, simulators, and other similar teaching aids for both school and other driver training use.
- III. There is a program for adult driver training and retraining.
- IV. Commercial driving schools are licensed and commercial driving instructors are certified in accordance with specific criteria adopted by the State.
- V. The program shall be periodically evaluated by the State, and the National Highway Safety Bureau shall be provided with an evaluation summary.

Highway Safety Program Standard 4.4.5

*DRIVER LICENSING*

*Introduction*

Much better techniques of driver licensing are possible with present knowledge, but are not in use in many States because of cost and for other reasons. In addition, many States do not have systematic procedures for relating the performance of the motorist (e.g., his record of accidents and moving violations) to licensing.

Apart from linking driver performance to licensing, licensing agencies also have the difficult problem of medical criteria for licensing. Physicians have the related problem of deciding when to recommend that a patient no longer drive.

The objective of driver licensing and performance activities will be to stimulate improved driver licensing with proper safeguards against licensing potentially dangerous drivers on the one hand, and needlessly removing the opportunity of the citizen to drive on the other.

*Background*

. . . But strict uniform licensing and renewal procedures must be developed and adopted, covering minimum age limits, mandatory physical and eyesight examinations, competent skills tests and written or oral examinations on traffic laws, varieties of traffic conditions, and emergency situations that arise in the operation of an automobile.

Report No. 1700, House of Representatives, 89th Congress, 2nd Session, July 15, 1966, p. 9.

. . . The value of uniformity is clear in such matters as periodic reexamination of drivers.

Report No. 1302, United States Senate, 89th Congress, 2nd Session, June 23, 1966, p. 5.

*Purpose*

To improve the quality of driving by implementing more effective and uniform licensing procedures, and thereby to reduce the number of accidents while also increasing the efficiency of traffic flow.

*Standard*

Each State shall have a driver licensing program: (a) to insure that only persons physically and mentally qualified will be licensed to operate a vehicle on the highways of the State, and (b) to prevent needlessly removing the opportunity of the citizen to drive. The program shall provide, as a minimum, that:

- I. Each driver holds only one license, which identifies the type(s) of vehicle(s) he is authorized to drive.\*
- II. Each driver submits acceptable proof of date and place of birth in applying for his original license.
- III. Each driver:
  - A. Passes an initial examination demonstrating his:
    1. Ability to operate the class(es) of vehicle(s) for which he is licensed.
    2. Ability to read and comprehend traffic signs and symbols.
    3. Knowledge of laws relating to traffic (rules of the road) safe driving procedures, vehicle and highway safety features, emergency situations that arise in the operation of an automobile, and other driver responsibilities.
    4. Visual acuity, which must meet or exceed State standards.
  - B. Is reexamined at an interval not to exceed four years, for at least visual acuity and knowledge of rules of the road.
- IV. A record on each driver is maintained which includes positive identification, current address, and driving history. In addition, the record system shall provide the following services:
  - A. Rapid entry of new data into the system.
  - B. Controls to eliminate unnecessary or unreasonable delay in obtaining data which is required for the system.
  - C. Rapid audio or visual response upon receipt at the records station of any priority request for status of driver license validity.
  - D. Ready availability of data for statistical compilation as needed by authorized sources.
  - E. Ready identification of drivers sought for enforcement or other operational needs.
- V. Each license is issued for a specific term, and must be renewed to remain valid. At time of issuance or renewal each driver's record must be checked.
- VI. There is a driver improvement program to identify problem drivers for record review and other appropriate actions designed to reduce the frequency of their involvement in traffic accidents or violations.
- VII. There is:
  - A. A system providing for medical evaluation of persons whom the driver licensing agency has reason to believe have mental or physical conditions which might impair their driving ability.

\* See Motorcycle Safety standard

- B. A procedure which will keep the driver license agency informed of all licensed drivers who are currently applying for or receiving any type of tax, welfare or other benefits or exemptions for the blind or nearly blind.
- C. A medical advisory board or equivalent allied health professional unit composed of qualified personnel to advise the driver license agency on medical criteria and vision standards.

VIII. The program shall be periodically evaluated by the State and the National Highway Safety Bureau shall be provided with an evaluation summary. The evaluation shall attempt to ascertain the extent to which driving without a license occurs.

#### Highway Safety Program Standard 4.4.6

### CODES AND LAWS

#### *Introduction*

There is general agreement on the fundamental importance of uniform vehicle codes and other laws related to highway safety.

This program area involves assisting the States to adopt codes consistent with those of their neighbors and to promulgate new legislation to deal with motoring problems that did not exist prior to the advent of modern high-speed travel.

#### *Background*

. . . basic motor vehicle codes and traffic laws should be made uniform throughout the Nation. The laws in the field are literally a jungle of confusion. There is a vast array of changing and conflicting traffic laws and control systems as we drive from State to State. . . This situation not only makes it impossible for the driver to know what the law is, but it encourages him to ignore the law.

Report No. 1700, House of Representatives 89th Congress, 2d Session, July 15, 1966, p. 19.

#### *Purpose*

To eliminate all major variations in traffic codes, laws, and ordinances on given aspects of highway safety among political subdivisions in a State, to increase the compatibility of these ordinances with a unified overall State policy on traffic safety codes and laws, and to further the adoption of appropriate aspects of the Rules of the Road section of the Uniform Vehicle Code.<sup>1</sup>

#### *Standard*

Each State shall develop and implement a program to achieve uniformity of traffic codes and laws throughout the State. The program shall provide at least that:

- I. There is a plan to achieve uniform rules of the road in all of its jurisdictions.
- II. There is a plan to make the State's unified rules of the road consistent with similar unified plans of other States. Toward this end, each State shall undertake and maintain continuing comparisons of all State and local laws, statutes and ordinances with the comparable

provisions of the Rules of the Road section of the Uniform Vehicle Code.<sup>1</sup>

June 27, 1967

Highway Safety Program Standard 4.4.7

*TRAFFIC COURTS*

*Introduction*

Traffic court records should be a part of each central traffic records system, particularly for the driver records.

*Background*

The States must reappraise and review their traffic court systems. Traffic courts should be a regularly established part of the State judicial system, with full-time judges and staff, assigned quarters, and operating procedures which insure reasonable availability of court services for alleged offenders. No traffic court or any of its personnel should be financially dependent upon any fee system, fines, costs, or other revenue resulting from processing violations of motor vehicle laws, and strict accounting procedures regarding collection of fees, fines, and costs should be instituted.

Report No. 1700, House of Representatives, 89th Congress, 2d Session, July 15, 1966, p. 19.

*Purpose*

To provide prompt impartial adjudication of proceedings involving motor vehicle laws.

*Standard*

Each State in cooperation with its political subdivisions shall have a program to assure that all traffic courts in it complement and support local and Statewide traffic safety objectives. The program shall provide at least that:

- I. All convictions for moving traffic violations shall be reported to the State traffic records system.
- II. *Program Recommendations*

In addition the State should take appropriate steps to meet the following recommended conditions:

  - A. All individuals charged with moving hazardous traffic violations are required to appear in court.
  - B. Traffic courts are financially independent of any fee system, fines, costs, or other revenue such as posting or forfeiture of bail or other collateral resulting from processing violations of motor vehicle laws.
  - C. Operating procedures, assignment of judges, staff and quarters insure reasonable availability of court services for alleged traffic offenders.

<sup>1</sup> UNIFORM VEHICLE CODE, Revised 1962, National Committee on Uniform Traffic Laws & Ordinances, 525 School St., S. W., Wash., D.C.

- D. There is a uniform accounting system regarding traffic violation notices, collection of fines, fees and costs.
- E. There are uniform rules governing court procedures in traffic cases.
- F. There are current manuals and guides for administration, court procedures, and accounting.

June 27, 1967

Highway Safety Program Standard 4.4.8

*ALCOHOL IN RELATION TO HIGHWAY SAFETY*

*Introduction*

The driver who drinks is one of the major problems affecting highway safety. Yet, while most States have some laws relating to control of drivers who drive while under the influence of intoxicating liquor, most of the States need: (1) to strengthen their "drunk driving" statutes, (2) to supplement these with "implied consent" authority, and (3) to establish an expanded information collection program on the extent to which alcohol is present among drivers and adult pedestrians involved in fatal accidents.

*Background*

Every witness who testified before the committee expressed deep and growing concern regarding the incidence of impairment by alcohol in relation to highway accidents. Though it is, on the basis of present information, impossible to state how many accidents were in fact the result, or even in part the result, of the driver's or the pedestrian's consumption of alcohol, the statistics do indicate clearly that alcohol is a factor present to some degree in about 50 percent of all accidents. This is a serious problem, and a perplexing one. Its alleviation and control will be extremely difficult, but its magnitude precludes its evasion . . .

Report No. 1700, House of Representatives, 89th Congress, 2d Session, July 15, 1966, p. 26.

*Purpose*

To broaden the scope and number of activities directed toward reducing traffic accident loss experience arising in whole or part from persons driving under the influence of alcohol.

*Standard*

Each State, in cooperation with its political subdivisions, shall develop and implement a program to achieve a reduction in those traffic accidents arising in whole or in part from persons driving under the influence of alcohol. The program shall provide at least that:

- I. There is a specification by the State of the following with respect to alcohol related offenses:
  - A. Chemical test procedures for determining blood-alcohol concentrations.
  - B. (1) The blood-alcohol concentrations, not higher than .10 percent by weight, which define the terms "intoxicated" or "under the influence of alcohol," and

- (2) A provision making it either unlawful, or presumptive evidence of illegality, if the blood-alcohol concentration of a driver equals or exceeds the limit so established.
- II. Any person placed under arrest for operating a motor vehicle while intoxicated or under the influence of alcohol is deemed to have given his consent to a chemical test of his blood, breath, or urine for the purpose of determining the alcohol content of his blood.
- III. To the extent practicable, there are quantitative tests for alcohol:
  - A. On the bodies of all drivers and adult pedestrians who die within four hours of a traffic accident.
  - B. On all surviving drivers in accidents fatal to others.
- IV. There are appropriate procedures established by the State for specifying:
  - A. The qualifications of personnel who administer chemical tests used to determine blood, breath, and other body alcohol concentrations.
  - B. The methods and related details of specimen selection, collection, handling, and analysis.
  - C. The reporting and tabulation of the results.
- V. The program shall be periodically evaluated by the State, and the National Highway Safety Bureau shall be provided with an evaluation summary.

June 27, 1967.

Highway Safety Program Standard 4.4.9

*IDENTIFICATION AND SURVEILLANCE  
OF ACCIDENT LOCATIONS*

*Introduction*

The Bureau of Public Roads and the State highway departments are already conducting a program for the detection and correction of high accident locations. Similar programs for roads and streets not on the Federal-aid highway systems should be instituted in all States.

*Background*

. . . such uniform standards shall include, but not be limited to . . . surveillance of traffic for detection and correction of high or potentially high accident locations . . .

Highway Safety Act of 1966 23 USC 402 (a)

*Purpose*

To identify specific locations or sections of streets and highways which have high or potentially high accident experience, as a basis for establishing priorities for improvement, selective enforcement, or other operational practices that will eliminate or reduce the hazards at the location so identified.



### *Standard*

Each State, in cooperation with county and other local governments, shall have a program for identifying accident locations and for maintaining surveillance of those locations having high accident rates or losses.

- I. The program shall provide, as a minimum, that:
  - A. There is a procedure for accurate identification of accident locations on all roads and streets.
    1. To identify accident experience and losses on any specific sections of the road and street system.
    2. To produce an inventory of:
      - a. High accident locations.
      - b. Locations where accidents are increasing sharply.
      - c. Design and operating features with which high accident frequencies or severities are associated.
    3. To take appropriate measures for reducing accidents.
    4. To evaluate the effectiveness of safety improvements on any specific section of the road and street system.
  - B. There is a systematically organized program:
    1. To maintain continuing surveillance of the roadway network for potentially high accident locations.
    2. To develop methods for their correction.
- II. The program shall be periodically evaluated by the State and the National Highway Safety Bureau shall be provided with an evaluation summary.

June 27, 1967.

Highway Safety Program Standard 4.4.10

### *TRAFFIC RECORDS*

#### *Introduction*

Four classes of routinely collected information comprise the data base for all aspects of a coordinated State traffic safety program (a) data pertaining to drivers, their licensing, violation records, and financial responsibility, (b) vehicle data such as make, model, and serial number, (c) highway data on a milepost basis of bridges, structures, tangents, curves, intersections, and traffic control devices, and (d) accident data linked to the involved drivers, vehicles, and highway locations.

With modern electronic data processing systems, all of these data are amendable to efficient handling, including acquisition, encoding, storage and retrieval. Without efficient handling methods, costs become prohibitive and data cannot be fully or properly used.

The objective of the data systems program will be to upgrade all aspects of the accident information system, starting with the collection of raw data, followed by its encoding, storage, retrieval, analysis, and ultimate dissemination to users. Particular attention will be directed toward making State data useful to State and community executives and to their program directors and planners.

### *Background*

. . . The most definitive, objective, and specialized accident investigation of which we are capable will be useless unless its results can be fed into a record system, correlated with other relevant data, and made to serve some purpose other than mere accumulation.

Uniform, complete, and accurate accident reports, stored in one center in every State, subject to rapid retrieval and analysis, and compatible with a national record system at the Federal level, can tell us not only how many accidents we have, but what kind of accidents they are, where and when they occur, the physical circumstances and the people, injuries, death and damage they involve, what emergency services and enforcement agencies responded and how, and what judicial actions resulted, to mention only the most obvious possibilities.

. . . No other part of the State program is as basic to ultimate success, nor as demanding of complete cooperation at every jurisdictional level. . . .

Report No. 1700, House of Representatives, 89th Congress, 2nd Session, July 15, 1966, pp. 10 and 11

### *Purpose*

To assure that appropriate data on traffic accidents, drivers, motor vehicles, and roadways are available to provide:

1. A reliable indication of the magnitude and nature of the highway traffic accident problem on a national, State, and local scale;
2. A reliable means for identifying short-term changes and long-term trends in the magnitude and nature of traffic accidents.
3. A valid basis for:
  - A. The detection of high or potentially high accident locations and causes
  - B. The detection of health, behavioral and related factors contributing to accident causation
  - C. The design of accident, fatality, and injury countermeasures
  - D. Developing means for evaluating the cost effectiveness of these measures
  - E. The planning and implementation of selected enforcement and other operational programs.

### *Standard*

Each State, in cooperation with its political subdivisions, shall maintain a traffic records system. The Statewide system (which may consist of compatible subsystems) shall include data for the entire State. Information regarding drivers, vehicles, accidents, and highways shall be compatible for purposes of analysis and correlation. Systems maintained by local governments shall be compatible with, and capable of furnishing data to the State system. The State system shall be capable of providing summaries, tabulations and special analyses to local governments on request.

The record system shall include: (a) certain basic minimum data and (b) procedures for statistical analyses of these data.

The program shall provide as a minimum that :

- I. Information on vehicles and system capabilities includes (conforms to Motor Vehicle Registration Standard) :
  - A. Make
  - B. Model year
  - C. Identification number (rather than motor number)
  - D. Type of body
  - E. License plate number
  - F. Name of current owner
  - G. Current address of owner
  - H. Registered gross laden weight of every commercial vehicle
  - I. Rapid entry of new data into the records or data system
  - J. Controls to eliminate unnecessary or unreasonable delay in obtaining data
  - K. Rapid audio or visual response upon receipt at the records station of any priority request for status of vehicle possession authorization
  - L. Data available for statistical compilation as needed by authorized sources
  - M. Identification and ownership of vehicles sought for enforcement or other operational needs
- II. Information on drivers and system capabilities includes (conforms to Driver Licensing standard) :
  - A. Positive identification
  - B. Current address
  - C. Driving history
  - D. Rapid entry of new data into the system
  - E. Controls to eliminate unnecessary or unreasonable delay in obtaining data which is required for the system
  - F. Rapid audio or visual response upon receipt at the records station of any priority request for status of driver license validity
  - G. Ready availability of data for statistical compilation as needed by authorized sources
  - H. Ready identification of drivers sought for enforcement or other operational needs
- III. Information on types of accidents includes :
  - A. Identification of location in space and time
  - B. Identification of drivers and vehicles involved
  - C. Type of accident
  - D. Description of injury and property damage
  - E. Description of environmental conditions
  - F. Causes and contributing factors, including the absence of or failure to use available safety equipment.

- IV. There are methods to develop summary listings, cross tabulations, trend analyses and other statistical treatments of all appropriate combinations and aggregations of data items in the basic minimum data record of drivers and accident and accident experience by specified groups.
- V. All traffic records relating to accidents collected hereunder shall be open to the public in a manner which does not identify individuals.
- VI. The program shall be periodically evaluated by the State and the National Highway Safety Bureau shall be provided with an evaluation summary.

June, 27, 1967.

#### Highway Safety Program Standard 4.4.11

#### *EMERGENCY MEDICAL SERVICES*

##### *Introduction*

Many of those injured in highway accidents die needlessly or are permanently disabled because they do not receive prompt and proper emergency medical care. Few areas of the United States now have adequate emergency services. In most areas, there has been inadequate planning of emergency logistics, communications and transportation facilities and present services are inadequately managed. Ambulance operators, \*drivers and attendants are commonly not required to be expert in first aid, nor are they required in most parts of the country to carry adequate equipment in their vehicles. Hospitals and ambulances seldom have radio or other direct communications links either to each other or to police radio communication systems. Helicopters are rarely employed, and landing pads are present at only a small number of hospitals, chiefly along our coasts for the use of the Coast Guard. It is imperative that highway and other emergency services be improved throughout the Nation.

##### *Background*

The Highway Safety Act reflects the importance of emergency services by requiring that the highway safety program standards include coverage of emergency services.

When accidents occur, it is essential that every available resource be mobilized to save lives, lessen the severity of injuries, protect property, restore movement of traffic. An essential part of the State safety program should be the development of an emergency facilities system. This will require the advice and services of experts and personnel in medicine, law, engineering, communication and law enforcement, at a minimum.

Report No. 1700, House of Representatives, 89th Congress, 2d Session, July 15, 1966, p. 19.

##### *Purpose*

To provide an emergency care system that will:

- I. Provide quick identification and response to accidents.
- II. Sustain and prolong life through proper first aid measures, both at the scene and in transit.

\* Public, private or voluntary purveyors of ambulance service.

- III. Provide the coordination, transportation, and communications necessary to bring the injured and definitive medical care together in the shortest practicable time, without simultaneously creating additional hazards.

*Standard*

Each State, in cooperation with its local political subdivisions, shall have a program to ensure that persons involved in highway accidents receive prompt emergency medical care under the range of emergency conditions encountered. The program shall provide, as a minimum, that:

- I. There are training, licensing, and related requirements (as appropriate) for ambulance and rescue vehicle operators, attendants, drivers, and dispatchers.
- II. There are requirements for types and numbers of emergency vehicles including supplies and equipment to be carried.
- III. There are requirements for the operation and coordination of ambulances and other emergency care systems.
- IV. There are first aid training programs and refresher courses for emergency service personnel, and the general public is encouraged to take first aid courses.
- V. There are criteria for the use of two-way communications.
- VI. There are procedures for summoning and dispatching aid.
- VII. There is an up-to-date, comprehensive plan for emergency medical services, including:
  - A. Facilities and equipment
  - B. Definition of areas of responsibility
  - C. Agreements for mutual support
  - D. Communications systems
- VIII. This program shall be periodically evaluated by the State and the National Highway Safety Bureau shall be provided with an evaluation summary.

June 27, 1967.

Highway Safety Program Standard 4.4.12

*HIGHWAY DESIGN, CONSTRUCTION AND MAINTENANCE*

*Introduction*

Proper design, construction, and maintenance of streets and highways are important aspects of any effective highway safety program. Poor roads and inadequate maintenance can contribute directly to accidents and serious resulting injuries.

*Background*

There are, however, a great many things we can do in highway design, maintenance, and construction to improve their contribution to safety.

We can require that all new construction and reconstruction, regardless of where it is, to be built to no less than Federal-aid primary design standards, even if this does mean building fewer miles, and we

can require that those primary geometric design standards be substantially raised. . . .

We can require that median barriers and guardrails be constructed of impact absorption materials that return cars with the least possible damage to positions parallel to traffic, and we can require that this be done immediately. We can also start replacing the present impact-dangerous barriers and guardrails with the improved types. . . .

We can require that maintenance standards and practices be high enough to keep highways up to original construction standards.

Report No. 1700, House of Representatives, 89th Congress,  
2d Session, July 15, 1966, p. 15

*Purpose*

To assure: (a) that existing streets and highways are maintained in a condition that promotes safety, (b) that capital improvements either to modernize existing roads or to provide new facilities meet approved safety standards, and (c) that appropriate precautions are taken to protect passing motorists as well as highway workers from accident involvement at highway construction sites.

*Standard*

Every State in cooperation with county and local governments shall have a program of highway design, construction, and maintenance to improve highway safety. Standards applicable to specific programs are those issued or endorsed by the Federal Highway Administrator.

- I. The program shall provide, as a minimum that:
  - A. There are 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 street and highways, and through streets and highways.
  - B. Street systems are 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. There are standards for pavement design and construction with specific provisions for high skid resistance qualities.
  - E. There is 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. There is guidance, warning and regulation of traffic approaching and traveling over construction or repair sites and detours.

- G. There is a systematic identification and tabulation of all rail-highway grade crossings and a program for the elimination of hazards and dangerous crossings.
- H. Roadways and the roadsides are maintained consistent with the design standards which are followed in construction, to provide safe and efficient movement of traffic.
- I. Hazards within the highway right-ofway are identified and corrected.
- J. There are 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. Supports for traffic control devices 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. There is 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.
- II. This program shall be periodically evaluated by the State for its effectiveness in terms of reductions in accidents and their end results, and the National Highway Safety Bureau shall be provided with an evaluation summary.

June 27, 1967.

#### Highway Safety Program Standard 4.4.13

#### *TRAFFIC CONTROL DEVICES*

##### *Introduction*

Traffic control devices include signs, signals, markings, and a variety of electronic controls that convey regulatory or convenience information

to motorists. As with street and highway construction, improvements may be made for capacity, for safety, or both.

This program will be concerned with State implementation of control device improvements that bear directly on reducing accidents.

#### *Background*

Traffic control devices, signs, and signals on all highways and streets should be uniform, and standards should be continually reviewed and upgraded.

Report No. 1700, House of Representatives, 89th Congress, 2d Session, July 15, 1966, p. 19.

The value of uniformity is clear in such matters as uniform signs and signaling devices . . .

Report No. 1302, United States Senate, 89th Congress, 2d Session, June 23, 1966, p. 5.

#### *Purpose*

To assure the full and proper application of modern traffic engineering practice and uniform standards for traffic control devices in reducing the likelihood and severity of traffic accidents.

#### *Standard*

Each State, in cooperation with its county and local government, shall have a program relating to the use of traffic control devices (signs, markings, signals, etc.) and other traffic engineering measures to reduce traffic accidents.

- I. The program shall provide, as a minimum, that:
  - A. There is a method:
    1. To identify needs and deficiencies of traffic control devices.
    2. To assist in developing current and projected programs for maintaining, upgrading, and installing traffic control devices.
  - B. Existing traffic control devices on all streets and highways are upgraded to conform with standards issued or endorsed by the Federal Highway Administrator.
  - C. New traffic control devices are installed on all streets and highways, based on engineering studies to determine where devices are needed for safety. Such devices conform with standards issued or endorsed by the Federal Highway Administrator.
  - D. There are programs for preventive maintenance, repair, and daytime and nighttime inspection of all traffic control devices.
  - E. Fixed or variable speed zones are established, at least on expressways, major streets and highways, and through streets and highways, based on engineering and traffic investigations.
- II. This program shall be periodically evaluated by the State and the National Highway Safety Bureau shall be provided with an evaluation summary.