

COMMONWEALTH OF VIRGINIA, HIGHWAY SAFETY DIVISION  
SECOND ANNUAL HIGHWAY SAFETY WORK PROGRAM

July 1, 1972 — June 30, 1973

compiled and prepared  
by

William L. Howard  
Highway Research Analyst

with assistance from  
Other Members of the Safety Section Staff

(A Report Prepared by the Virginia Highway Research Council  
Under the Sponsorship of the Virginia Highway Safety Division.)

Virginia Highway Research Council  
(A Cooperative Organization Sponsored Jointly by the Virginia  
Department of Highways and the University of Virginia)

Charlottesville, Virginia

March 1972  
VHRC 71-R25



## TABLE OF CONTENTS

	<u>Page No.</u>
PART I INTRODUCTION .....	I-1
PART II SUMMARY .....	II-1
PART III PROGRAM ANALYSIS .....	III-1
HIGHWAY ACTIVITIES IN VIRGINIA .....	III-3
Accident Exposure Factors .....	III-3
Accident Statistics .....	III-4
Program Priorities .....	III-11
PART IV SUBELEMENT PLANS .....	IV-1
<u>Standard</u>	
300 Planning and Administration .....	IV-3
301 Periodic Motor Vehicle Inspection .....	IV-17
302 Motor Vehicle Registration .....	IV-27
303 Motorcycle Safety .....	IV-40
304 Driver Education .....	IV-48
305 Driver Testing and Licensing .....	IV-99
306 Codes and Laws .....	IV-130
307 Traffic Courts .....	IV-138
308 Alcohol and Drugs .....	IV-146
309 Identification and Surveillance of Accident Locations .....	IV-168
310 Traffic Records .....	IV-181
311 Emergency Medical Services .....	IV-194
312 Highway Design, Construction and Maintenance .....	IV-207
313 Traffic Control Devices .....	IV-225
314 Pedestrian Safety .....	IV-242
315 Police Traffic Services .....	IV-258
316 Accident Cleanup .....	IV-277
PART V AGREEMENT PROVISIONS .....	V-1





## LIST OF EXHIBITS

1150

<u>Exhibit</u>		<u>Page No.</u>
1	Number of Motor Vehicle Registrations and Licensed Operators and Chauffeurs .....	III-13
2	Actual and Projected Motor Vehicle Registrations .....	III-14
3	Actual and Projected Numbers of Licensed Operators and Chauffeurs .....	III-15
4	Actual and Projected Motorcycle Registrations .....	III-16
5	Vehicle Miles of Travel in Virginia 1961 Through 1970.....	III-17
6	Actual and Projected Annual Vehicle Miles of Travel .....	III-18
7	Accident Summary by Years — All Virginia Highways, Streets and Roads — Years 1961 — 1970 .....	III-19
8	Actual and Projected Highway Death Rates .....	III-20
9	Accident Summary by Years — Interstate System — Years 1961 — 1970 .....	III-21
10	Actual and Projected Death Rates on Interstate System .....	III-22
11	Accident Summary by Years — Arterial and Primary System — Years 1961 — 1970 .....	III-23
12	Actual and Projected Death Rates on Arterial and Primary Systems .....	III-24
13	Accident Summary by Year — Secondary System — Years 1963 — 1970.....	III-25
14	Actual and Projected Death Rates on Secondary System .....	III-26
15	Actual and Projected Vehicle Accidents .....	III-27
16	Actual and Projected Number of Persons Injured in Motor Vehicle Accidents.....	III-28
17	Actual and Projected Highway Injury Accidents .....	III-29
18	Actual and Projected Traffic Fatalities .....	III-30
19	Actual and Projected Fatal Accidents .....	III-31

## LIST OF EXHIBITS (Continued)

<u>Exhibit</u>		<u>Page No.</u>
20	Actual and Projected Pedestrian Injuries .....	III-32
21	Actual and Projected Pedestrian Injuries .....	III-33
22	Actual and Projected Pedestrian Fatalities .....	III-34
23	Actual and Projected Pedestrian Deaths — Urban Roads and Streets .....	III-35
24	Actual and Projected Pedestrian Deaths — Rural Roads ...	III-36
25	Linear Regression Equation of Vehicle Miles of Travel and Persons Injured to Project the Number of Persons Injured for 1971 Using the Least Squares Technique .....	III-37
26	Linear Regression Equation of Vehicle Miles of Travel and Injury Accidents to Project Injury Accidents for 1971 Using the Least Squares Technique .....	III-38
27	Linear Regression Equation of Vehicle Miles of Travel and Fatalities to Project the Number of Vehicle Fatalities for 1971 Using the Least Squares Technique .....	III-39
28	Linear Regression Equation of Vehicle Miles of Travel and Fatal Accidents to Project the Number of Fatal Acci- dents in 1971 Using the Least Squares Technique .....	III-40
29	Summary of Projected Highway Crash Statistics .....	III-41
30	Distribution of Federal Funds for FY 1968 .....	III-42
31	Distribution of Federal Funds for FY 1969 .....	III-43
32	Distribution of Federal Funds for FY 1970 .....	III-46
33	Distribution of Federal Funds for FY 1971 .....	III-50
34	Distribution of Federal Funds for FY 1972 .....	III-54
35	State Priorities .....	III-59
36	Program Area and Task Expenditures by Levels A & B of Federal Funding .....	III-61

## LIST OF EXHIBITS (Continued)

<u>Exhibit</u>		<u>Page No.</u>
37	Virginia Crash Facts .....	IV-154
38	Driving While Intoxicated Arrests .....	IV-155
39	Processing of DWI's .....	IV-159
40	Relative Probability of Causing An Accident In Relation To Blood Alcohol Level .....	IV-161



## INTRODUCTION

This submission is the state's Second Annual Highway Safety Work Program. It was prepared by the Virginia Highway Research Council for the Commonwealth of Virginia in fulfillment of the state's obligation to the National Highway Traffic Safety Administration.

This year, local Highway Safety Commissions were asked to prepare and submit Local Highway Safety Work Programs in order to aid the state in the development of its program. The local submissions followed the same format as that of the state. The Supervisor of the Driver Education Services, the Supervisor of the Emergency Medical Services; the Traffic Officer of State Police Headquarters, the Driver Services Administrator of the Division of Motor Vehicles and traffic engineers from the Virginia Department of Highways participated in organizing this comprehensive highway safety program submission for Virginia.

The Annual Highway Safety Program for Virginia is divided into five parts. The first section is the introduction, the second is a summary of each standard area, giving the total cost of tasks covered in the Annual Work Program. These summaries show the total expenditures by the state on highway safety programs, total 402 funding, and federal funds distributed to political subdivisions. In order to develop and implement the enclosed programs (see Part IV AHSWP) at both the state and local level, the Commonwealth is requesting over \$4 million in federal funding, with approximately \$2.8 million earmarked for political subdivisions.

Part three of the Second Annual Highway Safety Work Program is the program analysis, which provides an overview of the Program. It includes changes in traffic accidents, deaths, personal injuries and related property losses since 1961. Additional data which effectively relate the changing magnitudes of highway safety problems in the state appear in this section. The total of 402 funds expended by political subdivisions from the inception of the program through the year covered by the AHSWP is included in this section.

A priority chart showing the amount of federal funds to be expended by standard area according to the amount requested for the total program is given. A breakdown of tasks that will be funded according to the two levels of funding anticipated from the NHTSA is also shown.

Subelement plans (SEP) which make up the planning documents constitute Part IV of the Program. They provide a five-year program plan which includes two previous years, the next fiscal year, and a projection of activities for the next two years, 1974 and 1975. Supplements to the subelement plans show the total cost of each SEP and a breakdown of the total cost, the federal share, and the federal share to localities by task. A narrative discussing the use of federal funds follows each SEP.

The state is now limited in its ability to fully evaluate its programs due to weaknesses in its traffic records system. This is being remedied by a newly appointed Traffic Records Committee whose activities should lead to a greatly improved records system. In anticipation of data that a new records system will better provide, performance measures and output measures have been designed and incorporated in the effectiveness supplements to the subelements.

Part five of the Program includes the Federal-Aid Highway Safety Program Agreement.

PART II  
SUMMARY

HIGHWAY SAFETY PROGRAM - SUMMARY			STATE: VIRGINIA DATE: April 1, 1972	
SUB ELEMENT NO.	STANDARDS & SUBELEMENTS	TOTAL FY COST (\$000)	NEW OBLIGATION	
			TOTAL FEDERAL	LOCAL EXPEND.
PA-73-100	Planning & Administration	689.5	180.0	0
	300	689.5	180.0	0
VI-73-261	Periodic Motor Vehicle Inspection	412.0	0	0
	301	412.0	0	0
VR-73-261	Motor Vehicle Registration	7,793.0	0	0
	302	7,793.0	0	0
MS-73-161	Motorcycle Safety	72.0	36.0	36.0
	303	72.0	36.0	36.0
DE-73-161	Driver Education — High School	15,257.5	826.15	761.8
	304	15,257.5	826.15	761.8
DE-73-162	Driver Education — Driver Improvement	144.2	51.7	30.0
	304	144.2	51.7	30.0
DE-73-163	Driver Education — Adult	9.5	9.5	9.5
	304	9.5	9.5	9.5
DE-73-164	Driver Education — Handicapped	104.4	52.2	0
	304	104.4	52.2	0
DE-73-165	Driver Education — Commercial	1.0	.5	0
	304	1.0	.5	0
DE-73-166	Highway Safety Education	127.061	63.531	0
	304	127.061	63.531	0
DL-73-161	Driver Testing & Licensing	11,907.5	183.5	0
	305	11,907.5	183.5	0
CL-73-501	Codes & Laws	92.0	46.0	46.0
	306	92.0	46.0	46.0
TC-73-491	Traffic Courts	1,185.0	33.0	33.0
	307	1,185.0	33.0	33.0
AL-73-471	Alcohol & Drugs	682.9	355.4	298.4
	308	682.9	355.4	298.4
	Identification & Surveillance of Accident Locations	968.3	364.0	264.0
IS-73-391	609 (Cities)	328.0	164.0	164.0
IS-73-392	609 (VDH)	640.3	200.0	100.0
	Traffic Records	1,926.0	640.0	25.0
TR-73-501	310 Traffic Records Committee	580.0	290.0	25.0
TR-73-502	310 DMV	1,346.0	350.0	0

HIGHWAY SAFETY PROGRAM - SUMMARY			STATE: VIRGINIA DATE: April 1, 1972	
SUB ELEMENT NO.	STANDARDS AND SUBELEMENTS	TOTAL FY COST (\$000)	NEW OBLIGATION	
			TOTAL FEDERAL	LOCAL EXPEND.
EM-73-181	Emergency Medical Services 311	2,454.0 2,454.0	759.4 759.4	691.0 691.0
	Highway Design, Construction and Maintenance	410,388.0	128.0	128.0
HD-73-361	612 (Cities)	34,563.0	128.0	128.0
HD-73-362	612 (VDH)	375,825.0	0	0
	Traffic Control Devices	4,737.0	115.0	115.0
CD-73-361	613 (Cities)	115.0	115.0	115.0
CD-73-362	613 (VDH)	4,622.0	0	0
	Pedestrian Safety	145.7	81.85	81.85
PS-73-161	314 (NHTSA)	92.7	46.35	46.35
PS-73-162	614 (FHWA)	53.0	35.5	35.5
	Police Traffic Services	36,490.9	456.6	300.0
PT-73-471	315 (Cities)	23,977.2	300.0	300.0
PT-73-472	315 (State)	12,513.7	156.6	0
DC-73-281	Accident Cleanup 316	600.0 600.0	55.0 55.0	55.0 55.0
	TOTAL	496,187.461	4,437.331	2,874.65
300		689.5	180.0	0
301		412.0	0	0
302		7,793.0	0	0
303		72.0	36.0	36.0
304		15,643.661	1,003.581	801.30
305		11,907.500	183.5	0
306		92.0	46.0	46.0
307		1,185.0	33.0	33.0
308		682.9	355.4	298.4
310		1,926.0	640.0	25.0
311		2,454.0	759.4	691.0
314		92.7	46.35	46.35
315		36,490.9	456.6	300.0
316		600.0	55.0	55.0
	NHTSA TOTAL	80,041.161	3,794.831	2,332.05
609		968.3	364.0	264.0
612		410,388.0	128.0	128.0
613		4,737.0	115.0	115.0
614		53.0	35.5	35.5
	FHWA TOTAL	416,146.3	642.5	542.5
	GRAND TOTAL	496,187.461	4,437.331	2,874.65



## PROGRAM ANALYSIS

It has been estimated that "for more than half of their lives, the people of the United States and many other western countries are more likely to die from accidents than from any other cause." It is further indicated that, as a whole, accidents as a cause of death are now outranked only by cancer and cardiovascular disease.<sup>1/</sup>

The public seems to believe that accidents result from causal sequences that are somehow intrinsically different from those that lead to disease; and to other everyday events. "It is not uncommon for example, to encounter physicians, lawyers, economists, and others whose training has involved the development of analytical thinking and a continuous search for cause who believe firmly that accidents are "acts of God" that "just happen", and that lightning never strikes twice, "that accidents are as uncontrollable as the weather; that, in short, accidents somehow mysteriously defy any kind of systematic study, beyond mere tabulation."<sup>2/</sup> This general feeling is expressed even more strongly by those with less education and sophistication. With this type of attitude it is no wonder that the number of accidents occurring on the highways in Virginia increases each year. Even though many accidents are beyond human control, a large element of carelessness and irresponsibility is involved in others.

One can only predict that with this attitude motor vehicle accidents will continue to increase. Realizing that this will occur we should strive to reduce the severity and morbidity of these crashes as well as to reduce the number of persons killed. We

---

<sup>1/</sup> Moore, J. O., and B. Tourin, "A Study of Automobile Doors Opening Under Crash Conditions," T.R. 2, Automotive Crash Injury Research, Cornell University, August 1954.

<sup>2/</sup> Haddon, William, Jr., M. D., Edward A Suchman, and David Klein, Accident Research, Harper and Row Publishers, New York, 1964, p. 6.

seek to accomplish this not only by providing safer highways and better equipment, but by implementing an educational program second to none.

## HIGHWAY ACTIVITIES IN VIRGINIA

### Accident Exposure Factors

The number of motor vehicle registrations has been steadily increasing in Virginia. The 4.8% increase from 2,155,872 registrations in 1969 to 2,260,314 in 1970 is very close to the 4.7% annual average rate of increase over the years 1965 to 1970. The number of licensed operators has also been increasing, but at a slower rate. The increase from 2,331,539 licensed operators in 1969 to 2,347,500 in 1970 represents an increase of only 0.6% compared to a five-year average increase of 1.9%. A summary of these figures is shown in Exhibit 1.\* Exhibits 2 and 3 are graphs depicting the values from Exhibit 1, and they project the number of motor vehicle registrations and the number of licensed operators, respectively. Exhibit 4 shows the rapid growth in motorcycle registrations in the Commonwealth. The 5-year average annual increase was 19.9% from 1965 to 1970, with the increase of 29.1% from 1969 to 1970 reflecting the addition of 7,578 new registrations during that year. It seems likely that the number of motorcycle registrations will continue to rise at a rapid rate with approximately 50,000 registrations forecast for 1975.

The annual vehicle miles of travel on all Virginia highways, streets and roads are shown in Exhibit 5. The average annual rate of increase for the period from 1965 to 1970 was 6.6% with an increase of 5.4% from 1969 to 1970, which resulted in a level of 28.42 billion miles of travel. Exhibit 6 depicts the increase in annual vehicle miles of travel. Based on a projection of an annual increase of 6%, the total vehicle miles of travel should reach 38.0 billion by 1975.

With the number of vehicle registrations, licensed operators, and vehicle miles of travel increasing, one would perhaps assume that the the number of accidents, injuries and fatalities should increase concurrently as a consequence of this increased

---

\*Exhibits for Part III appear at end of narrative.

highway exposure. However, it is the purpose of the Highway Safety Division of Virginia to reduce the number of accidents, personal injuries, property damage and especially fatalities in Virginia by implementing the very best highway safety program at both the state and local levels.

#### Accident Statistics

A summary of the highway accident statistics for 1970 is presented in Exhibit 7. In view of the increasing exposure of drivers to the risk of traffic accidents in terms of miles of travel and number of operators, it is encouraging to see that the number of fatalities decreased by 5.6% from 1,304 in 1969 to 1,231 in 1970. The latest available figures show a continuing decline to 1,215 fatalities in 1971. With an increase of 4.05% in the number of total accidents, the number of persons injured increased by only 0.63%. These results cannot be attributed directly to any single safety program, but the Highway Safety Division has identified some of the programs which it believes have had the greatest impact.

Before 1968 the Emergency Medical Services in Virginia were not regulated by any codes or laws. However, in 1968, special laws were passed regulating the training of ambulance attendants, as well as establishing a list of minimum essential items of equipment for ambulances. Since that time increased federal funding has enabled the state to add new facilities at locations which had previously gone without emergency medical services, as well as to provide better communications systems. Both of these activities have helped reduce the response time to traffic accident locations.

In light of the fact that the number of accidents has increased at a much faster rate than the number of persons injured, it appears that the various safety belt campaigns are having a significant impact in changing driver attitudes. This was only one of the topics within the scope of the expanded HSD public information campaign. Other

topics included alcohol in relation to highway safety, pedestrian safety, bicycle safety, motorcycle safety, and additional programs which have conveyed the safety message throughout the state.

In recognition of the fact that speed is a contributing factor in a large percentage of highway accidents, the police have increased their use of speed-measuring devices as a part of their overall program of detection and apprehension of those violating the speed laws of Virginia. The success of this program is reflected in the decrease in speed-related fatalities from 512 in 1969 to 489 in 1970.

Another factor which appears to have contributed to the reduction in the number of fatalities is the construction of additional interstate and arterial highways. The new construction has resulted in a 38% decrease in head-on collisions from 461 in 1969 to 287 in 1970.

A program of identification and surveillance of high-accident locations by the Highway Department in a special safety improvement project completed in 1968 at 382 points along Virginia's older roads resulted in 41% fewer injury accidents, 44% less property damage, and a reduction in fatalities from 19 to only 1 at these locations since improvements were made. Similar studies and improvements have been initiated at the local level, but statistics are not yet available for the proper evaluation of their effectiveness.

Although there was a 29.1% increase in motorcycle registration from 26,005 in 1970 to 33,583 in 1971, there was a decrease of 40.7% in motorcycle fatalities from 27 in 1970 to only 16 in 1971. Concomitantly, the number of motorcycle accidents decreased by 11.0% from 1,585 in 1970 to 1,411 in 1971.

The impact of additional federal funding for driver education at the high school level seems to be reflected in the decrease in the incidence of young drivers involved in fatal accidents. Of the drivers in the 16-17 age group only 63 were involved in

fatal crashes in 1970 compared with 83 in 1969, a reduction of 24.9%. In a study of the 1970 graduates of high school driver education programs, there was a death rate of 41 per 100,000 drivers in comparison to a death rate of approximately 117 per 100,000 drivers for those young drivers not taking driver education. Adult driver education programs may also have contributed to the reduction in fatalities in Virginia.

A useful method of relating increased highway activity (as reflected in the number of miles traveled and the number of operators) to the frequency of accidents is to examine the death rate (shown in Exhibit 8). The graph shown in Exhibit 8 denotes the downward trend in the death rate per 100 million vehicle miles of travel. The death rate has declined from 5.2 per 100 million vehicle miles of travel in 1965 to 4.3 in 1970 for a decrease of 17.3%, with the greatest reduction being the drop from 4.8 in 1969 to 4.3 in 1970 for a reduction of 10.4% in the last year for which statistics are available. The HSD is projecting a continued decline in the death rate with the projection for 1975 being 3.56 per 100 million vehicle miles of travel.

The interstate system continues as the leader in terms of highway safety in Virginia. In 1970 there were 774 miles of interstate routes open to traffic, or 1.5% of the total mileage under the jurisdiction of the Department of Highways. The interstate system experienced 25% of the travel, 10% of the accidents, 11% of the persons injured, 10% of the persons killed, 14% of the property damage and 6% of the economic loss that occurred on the total highway system under the Virginia Department of Highways. Exhibit 9 is a chart which contains the crash statistics for accidents which occurred on the interstate system. The frequency rates for the interstate system in 1970 were 144 for accidents, 62 for injuries, and 2.1 for deaths per 100 million vehicle miles of travel as compared to arterial and primary systems rates of 354 for accidents,

155 for injuries, and 6.2 for deaths per 100 million vehicle miles. Exhibit 10 illustrates the downward trend in the death rate on the interstate system with a projection that the death rate will continue to decline to a rate of 1.5 deaths per 100 million vehicle miles of travel in 1975.

A summary of accident statistics for the arterial and primary systems in Virginia is shown in Exhibit 11. These systems which includes 7,689 miles of highway, experienced 55% of the travel, 55% of the accidents, 58% of the persons injured, 65% of the persons killed, 57% of the property damage, and 60% of the economic loss that occurred on the highway systems under the Department of Highways. Even though the accident rate in 1970 showed a 2.0% increase over 1969, there was a 3% decrease in the death rate, while the injury rate remained the same. Exhibit 12 is a graph showing the trend in the death rate for the arterial and primary systems in Virginia. The projection is for a continued decline in the death rate to the level of 5.8 deaths per 100 million vehicle miles of travel in 1975.

The secondary system, which is comprised of 41,937 miles of highway, remains the most hazardous of the systems in Virginia. In 1970, the secondary system experienced 20% of the travel, 35% of the reported crashes, 31% of the persons injured, 25% of the persons killed, 29% of the property damage, and 25% of the economic loss. The accident frequency rates were approximately 70% higher than for the primary system and 317% higher than for the interstate system. In 1970 the death rate decreased by 18% from 1969 as there were 41 fewer deaths. The number of pedestrians killed also declined in 1970 to 37 from 47 in 1969.

Exhibit 13 summarizes the accident statistics for the secondary system, and Exhibit 14 depicts the death rate. The projection of the death rate per 100 million vehicle miles of travel is shown in Exhibit 14 to decrease to 5.62 by 1975.

Exhibits 15 through 24 are a series of graphs showing highway accident, injury, and death trends since 1965 with projections through 1975. On all of the graphs, actual numbers are depicted by solid lines while projections are signified by dashed lines.

Exhibit 15 is a graph of all motor vehicle accidents. During the past five years, the average annual increase has been 6.6%. The forecast for the next five years is based on an estimated 6.0% average annual increase. With the increased traffic volume and growing urban congestion, it does not seem likely that the number of reported accidents can be decreased significantly through the highway safety program. However, the emphasis in the highway safety program areas will be on reduction of the severity of traffic accidents, if not the number of occurrences.

Exhibit 16 is a graph of the number of persons injured in highway accidents. The line represented by a single asterisk (\*) represents what might be expected to happen in view of the trend over the last 5 years. However, it is thought that the continuance of a 4.3% annual increase in the number of persons injured can be prevented through the proper implementation of the various safety programs. By 1975 the gap between what might be expected without a safety program and what can be expected as a result of a safety program will have grown to approximately 5,500 persons. The line denoted by two asterisks (\*\*) shows the projection which the HSD believes will approximate the occurrences over the next 5 years.

Exhibit 17 is a graph of the number of injury accidents on the highways, streets, and roads of Virginia. Over the past 5 years, the average annual increase in the number of injury accidents has been 4.4%. However, the projection as shown on the graph by the dashed line is based on a 4.0% annual increase.

Exhibit 18 is a graph of the number of traffic fatalities in Virginia. The average annual increase over the last 5 years has been 3.0%; however, the number of fatalities



declined from 1969 through 1971. It is hoped that this downward trend will continue over the next five years. The projection of 1,165 fatalities in 1975 is a reduction of more than 10% from the peak of 1,304 in 1969.

Exhibit 19 is a graph of the number of fatal traffic accidents in Virginia. This graph is similar to Exhibit 18 which shows the number of fatalities. This similarity should not be surprising since the ratio of fatalities per fatal accident has declined only slightly from 1.205 in 1965 to 1.155 in 1970. The projected reduction in the number of fatal accidents from a peak of 1,117 in 1969 to 1,020 in 1975 represents a decrease of 8.9%.

Exhibit 20 shows that the number of pedestrian injuries in Virginia seems to have reached a peak in 1970. A slight decrease in pedestrian injuries over the next few years is projected but one can not be very sure of the magnitude of the decline since the turning point has just been reached. Exhibit 21 contains two graphs showing urban and rural pedestrian injuries. The projections are that the urban pedestrian injuries will experience a slight decrease, but that the less controllable rural pedestrian injuries will probably continue to rise slightly.

Exhibit 22 shows the alarming increase in pedestrian fatalities. From experience it appears that the number of pedestrian fatalities will be leveling off in the next few years. Exhibit 23 shows the rising trend in urban pedestrian deaths while Exhibit 24 shows that the number of rural pedestrian deaths has stabilized at around 135 per year.

Exhibits 25 through 28 are one-year forecasts of persons injured, injury accidents, fatalities, and fatal accidents which have been developed by using linear regression analysis based on the vehicle miles of travel. The projection of the number of persons injured as shown on Exhibit 25 is 48,973 for 1971. The coefficient of correlation of .985 is well above the .92 necessary at the 99% confidence level. Exhibit 26 projects the number of injury accidents to be 32,551 in 1971. The coefficient of correlation of

.988 is also greater than the .92 necessary at the 99% confidence level. Exhibit 27 projects the number of fatalities to be 1,290 in 1971. The coefficient of correlation of .867 is not significant at the 99% level, but is above the .81 required at the 95% confidence level. In this case it is fortunate that the situation is changing so that there is no longer a need to correlate fatalities so closely to the miles of travel. Exhibit 28 projects the number of fatal accidents to be 1,113 in 1971. The coefficient of correlation of .935 is significant at the 99% level, but it is lower than the coefficient of correlation for injuries and injury accidents. Thus it appears that when the vehicle miles of travel increase, they may be followed closely by increases in the number of accidents and injuries, but fortunately the number of fatal accidents and fatalities do not rise as much.

A summary of the long-range projections for injury accidents, injuries, fatal accidents, and fatalities is shown in Exhibit 29. These figures have been previously reflected in Exhibits 16 through 19. It is not believed that these figures actually represent as accurate a group of forecasts as the short-range forecasts developed by the linear regression technique, but it is believed that they will serve to indicate the general long-term nature of accident trends over the next five years.

#### Expenditure of Federal Funds for Highway Safety in Virginia

The distribution of federal funds from the inception of the program in Virginia is found in Exhibits 30 — 34. For all years, with the exception of the first year, more than 40% of the federal funds have been spent by the political subdivisions. The exception in the first year was approved by the National Highway Traffic Safety Administration.

### Program Priorities

More than \$4.4 million in federal funds has been programmed for fiscal year 1973, but it is recognized that less than this amount will probably be allocated by the NHTSA. Accordingly, it has been incumbent upon the administrators of the Highway Safety Division of Virginia to establish program priorities so that such funds as are made available can be employed in areas that will achieve maximum effectiveness. Exhibit 35 shows the programs that have been selected in accordance with the twelve criteria given below for funding at ten separate funding levels. Exhibit 35 shows what Virginia intends to allocate to each standard area depending on the amount of 402 funds received from the federal government. The request schedule in Exhibit 35 will allow the available funds to be distributed on a priority basis much more expeditiously than before. Also local jurisdictions and state agencies can ascertain whether they will receive 402 funding in fiscal year 1973 or will have to wait until fiscal year 1974.

A breakdown of tasks to be funded by standard area according to the two levels of funding anticipated from the NHTSA is shown in Exhibit 36. These tasks could change according to the state and local budgets being adopted.

### Criteria for Determining Priorities

The following 12 criteria are used by the HSD when determining where federal funds will be expended.

- (1) Amount of money required and percent of total funds received by state.
- (2) Predicted accident reductions by types.
- (3) Return on investment using average accident figures.
- (4) Accident reductions required to break even.
- (5) Method proposed for determining the effectiveness of the program in both management and its impact on highway safety.
- (6) Probability that the program will be successful.

- (7) Length of program.
- (8) Time lag between expenditure of funds and benefit derived.
- (9) Newness and innovations of program by type — will it develop a new technique for promoting highway safety.
- (10) Short-and long-range impact and fit with goals and objectives of the state's comprehensive program.
- (11) Percent of the state services — volume and coverage.
- (12) Compliance in particular standard area.

NUMBER OF MOTOR VEHICLE REGISTRATIONS AND LICENSED OPERATORS  
AND CHAUFFEURS

Year	Motor Vehicle Registrations	Total Licensed Operators
1965	1,794,037	2,134,416
1966	1,868,932	2,152,422
1967	1,936,770	2,177,067
1968	2,048,997	2,266,975
1969	2,155,872	2,331,539
1970	2,260,314	2,347,500

EXHIBIT 2  
ACTUAL AND PROJECTED MOTOR VEHICLE REGISTRATIONS

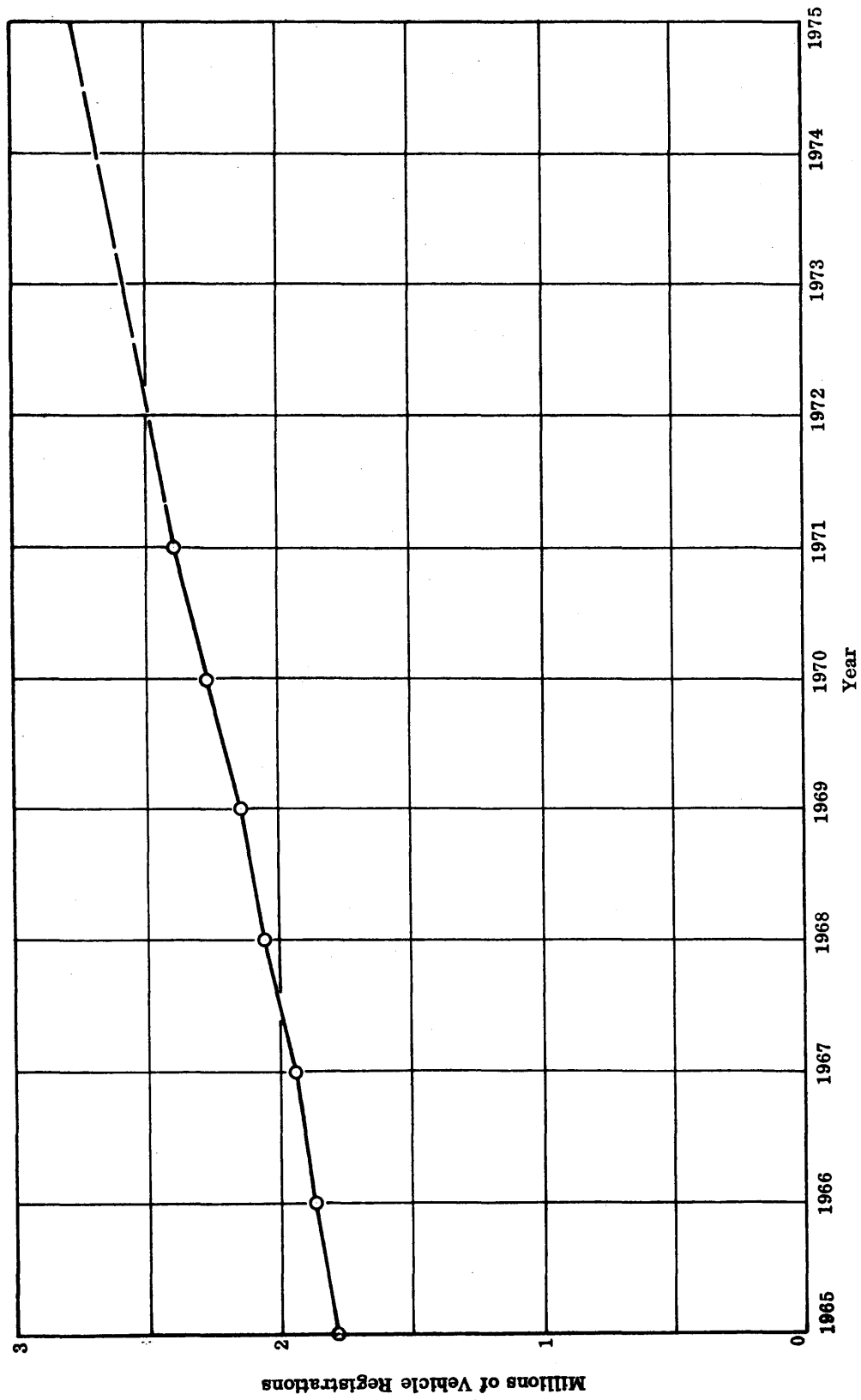
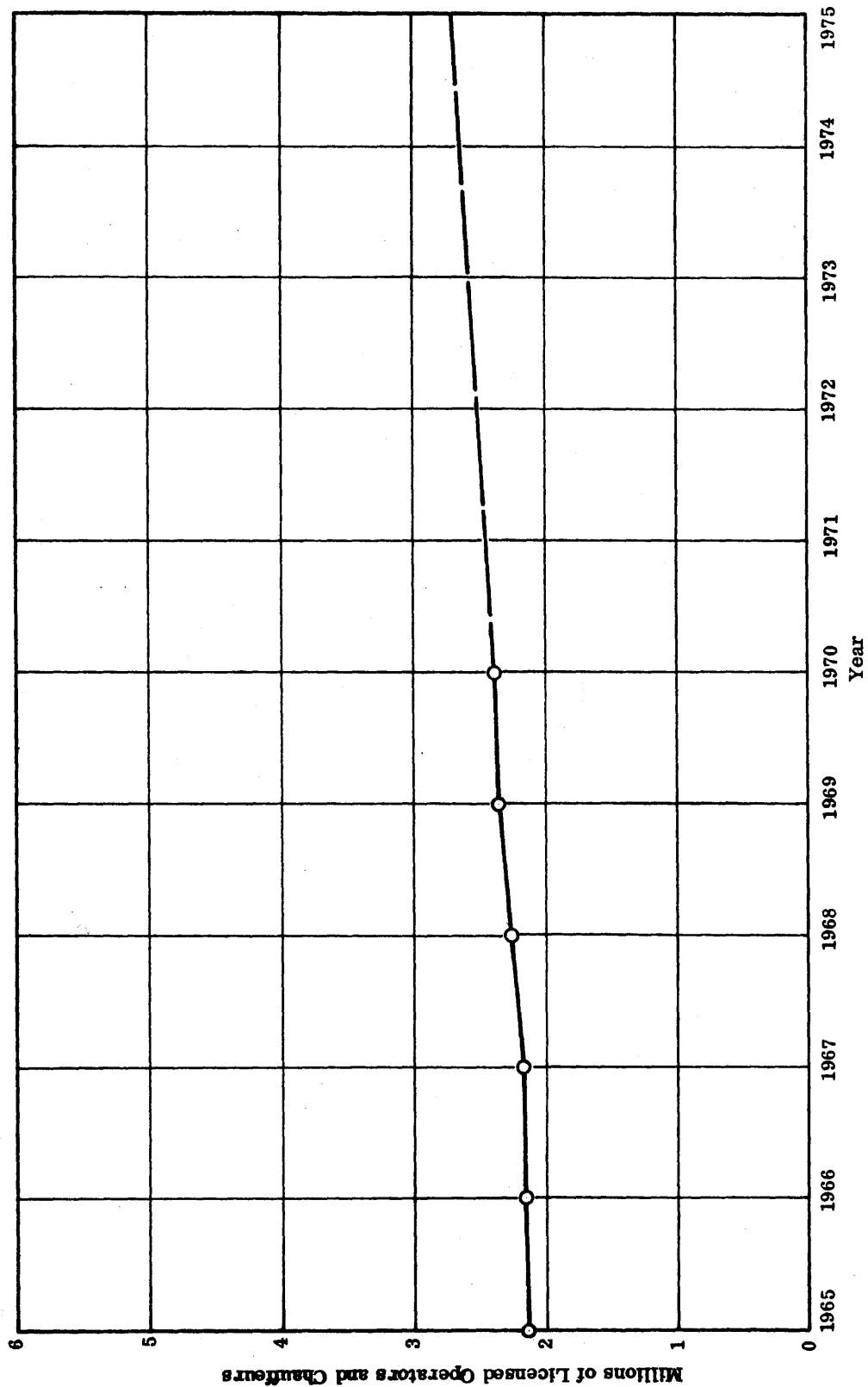
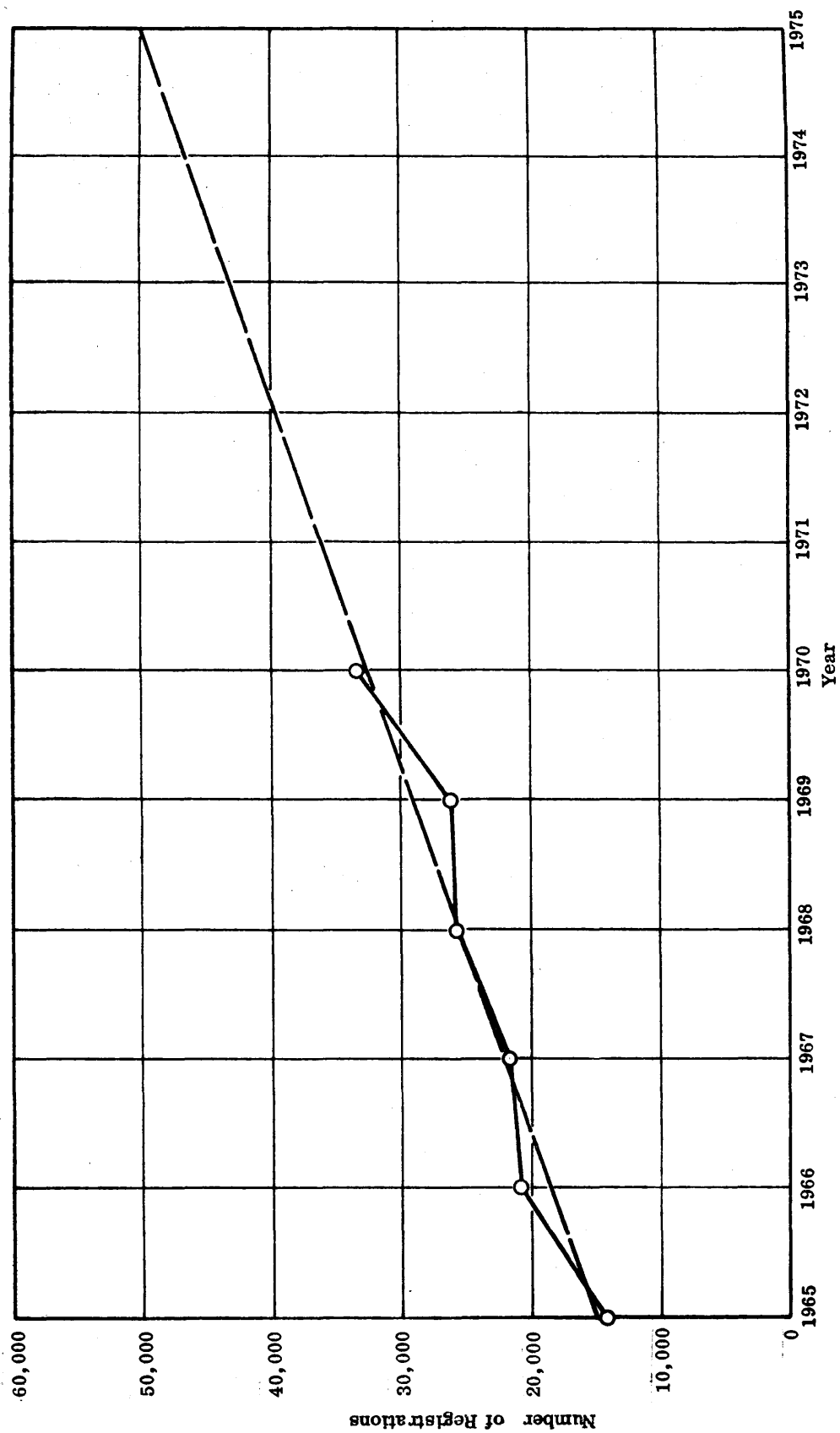


EXHIBIT 3  
ACTUAL AND PROJECTED NUMBERS OF LICENSED OPERATORS AND CHAUFFEURS



## EXHIBIT 4

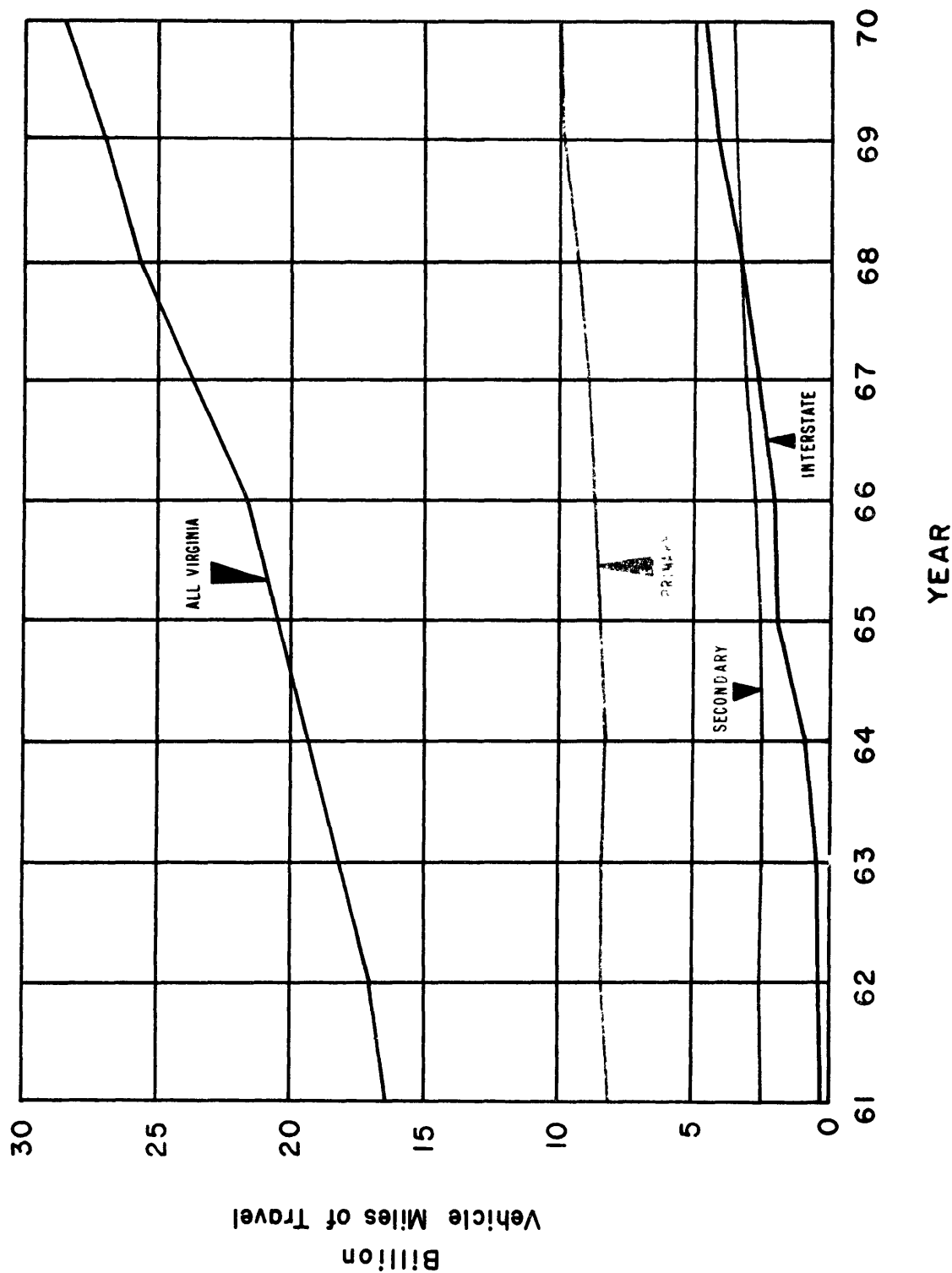
## ACTUAL AND PROJECTED MOTORCYCLE REGISTRATIONS





# EXHIBIT 5

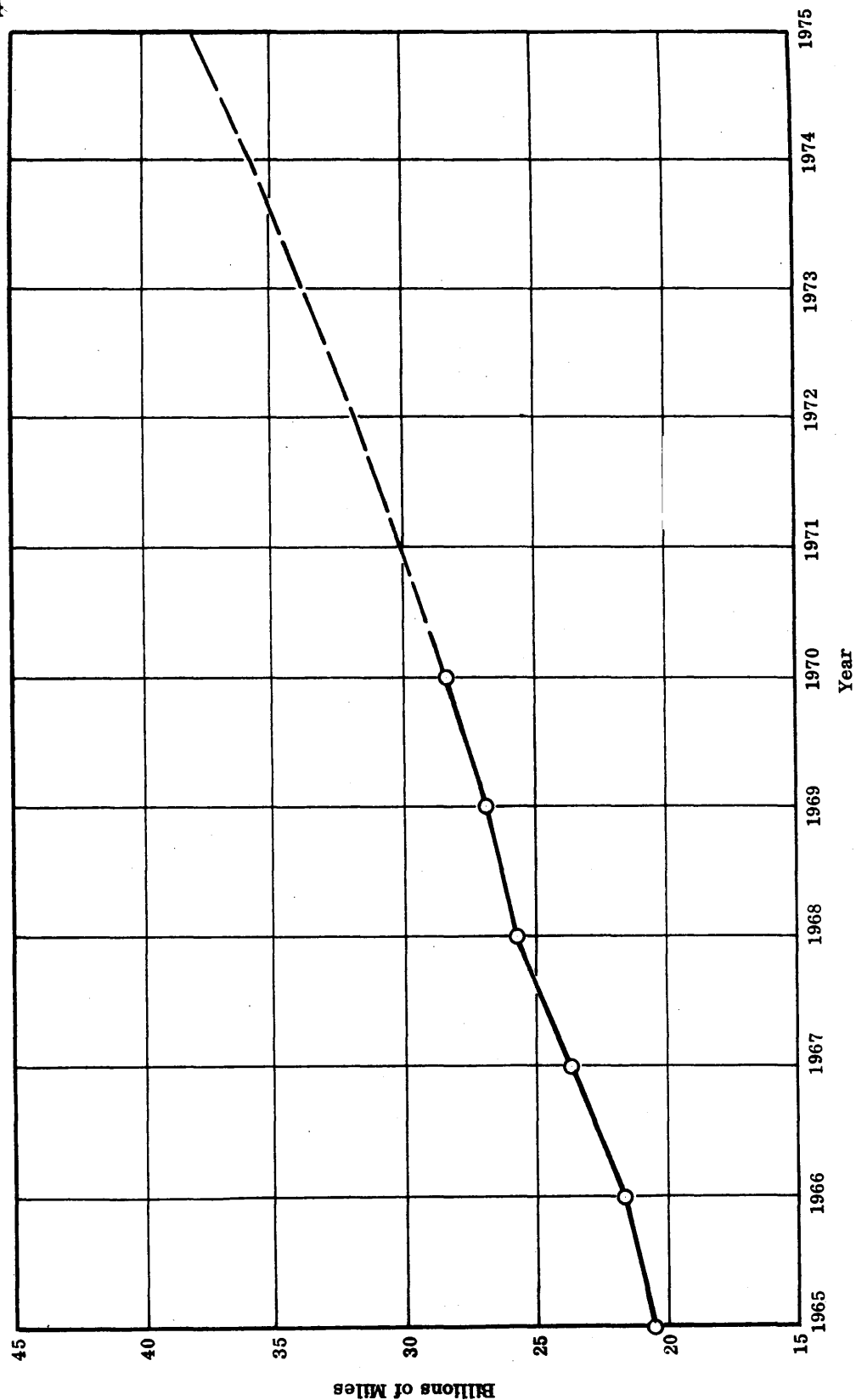
## VEHICLE MILES OF TRAVEL IN VIRGINIA 1961 THROUGH 1970



Source: Summary of Accident Data, State Highway Systems, Calendar Year 1970, Virginia Department of Highways Richmond, Virginia (November 1971) p. 12.

1173

EXHIBIT 6  
ACTUAL AND PROJECTED ANNUAL VEHICLE MILES OF TRAVEL



## EXHIBIT 7

## ACCIDENT SUMMARY BY YEARS - ALL VIRGINIA HIGHWAYS, STREETS AND ROADS - YEARS 1961 - 1970

YEAR	LENGTH IN MILES	ANNUAL VEHICLE MILES OF TRAVEL (THOUSANDS)	FATAL ACCIDENTS	PERSONS KILLED	INJURY ACCIDENTS	PERSONS INJURED	PROPERTY DAMAGE ACCIDENTS	TOTAL ACCIDENTS	AMOUNT OF PROPERTY DAMAGE	ECONOMIC LOSS	ACCIDENT RATE	INJURY RATE	DEATH RATE	PEDESTRIANS KILLED (INCL. IN PERSONS KILLED)	PEDESTRIANS INJURED (INCL. IN PERSONS INJURED)
1961	56,882	16,234,000	727	856	19,300	29,237	65,481	85,508	\$26,652,400	\$145,520,000	527	180	5.3	157	2,224
1962	56,204	17,018,400	826	974	21,687	33,143	71,538	94,051	30,100,000	175,300,000	553	195	5.7	205	2,343
1963	57,436	18,277,700	820	989	23,088	35,309	74,908	98,816	31,600,000	178,000,000	541	193	5.4	163	2,377
1964	58,404	19,210,100	871	1,050	25,677	39,246	82,788	109,336	35,000,000	189,000,000	569	204	5.5	185	2,520
1965	58,875	20,550,100	881	1,062	26,079	39,263	84,219	111,179	36,000,000	191,000,000	541	191	5.2	163	2,427
1966	59,319	21,640,000	908	1,106	27,761	41,849	87,606	116,275	37,000,000	200,000,000	537	193	5.1	182	2,521
1967	59,781	23,659,000	1,005	1,223	28,743	43,122	81,313	111,061	37,000,000	230,000,000	469	182	5.2	217	2,514
1968	60,428	25,614,000	1,036	1,218	30,146	45,693	89,255	120,437	43,500,000	245,000,000	470	178	4.8	232	2,535
1969	60,705	26,951,000	1,117	1,304	31,846	48,050	98,636	131,599	**	265,000,000	488	178	4.8	241	2,500
1970	61,136	28,418,000	1,066	1,231	32,296	48,354	103,561	136,923	**	270,000,000	482	170	4.3	240	2,609
PERCENT CHANGE 1970 OVER 1969	+0.61	+5.44	-4.57	-5.60	+1.41	+0.63	+4.99	+4.05	-	+1.89	-1.23	-4.49	-10.42	-0.41	+4.36

\*\*DATA UNAVAILABLE

\*DATA OBTAINED FROM "VIRGINIA TRAFFIC CRASH FACTS" - DEPARTMENT OF STATE POLICE

Source: Ibid., p. 13.

EXHIBIT 8  
ACTUAL AND PROJECTED HIGHWAY DEATH RATES

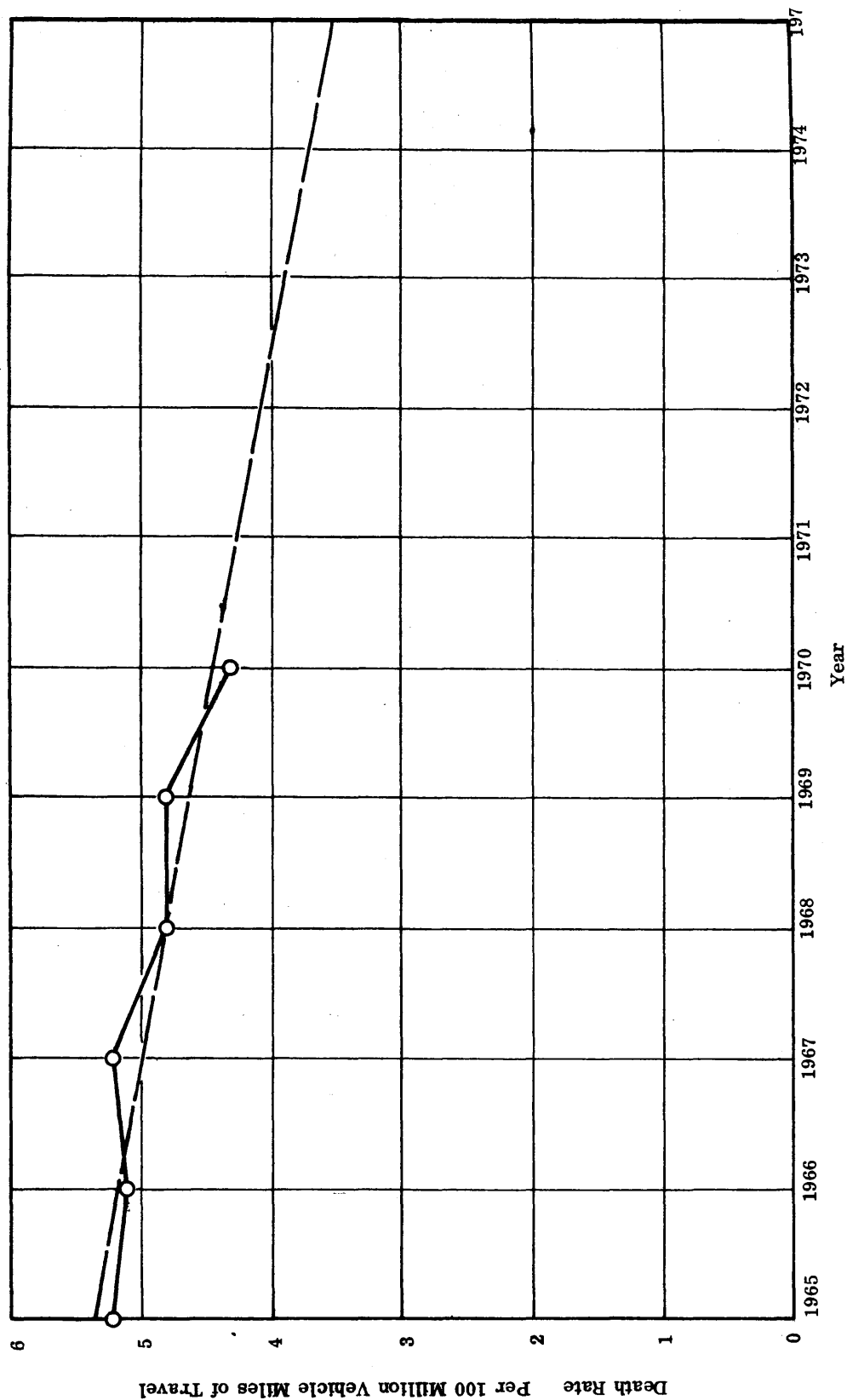


EXHIBIT 9

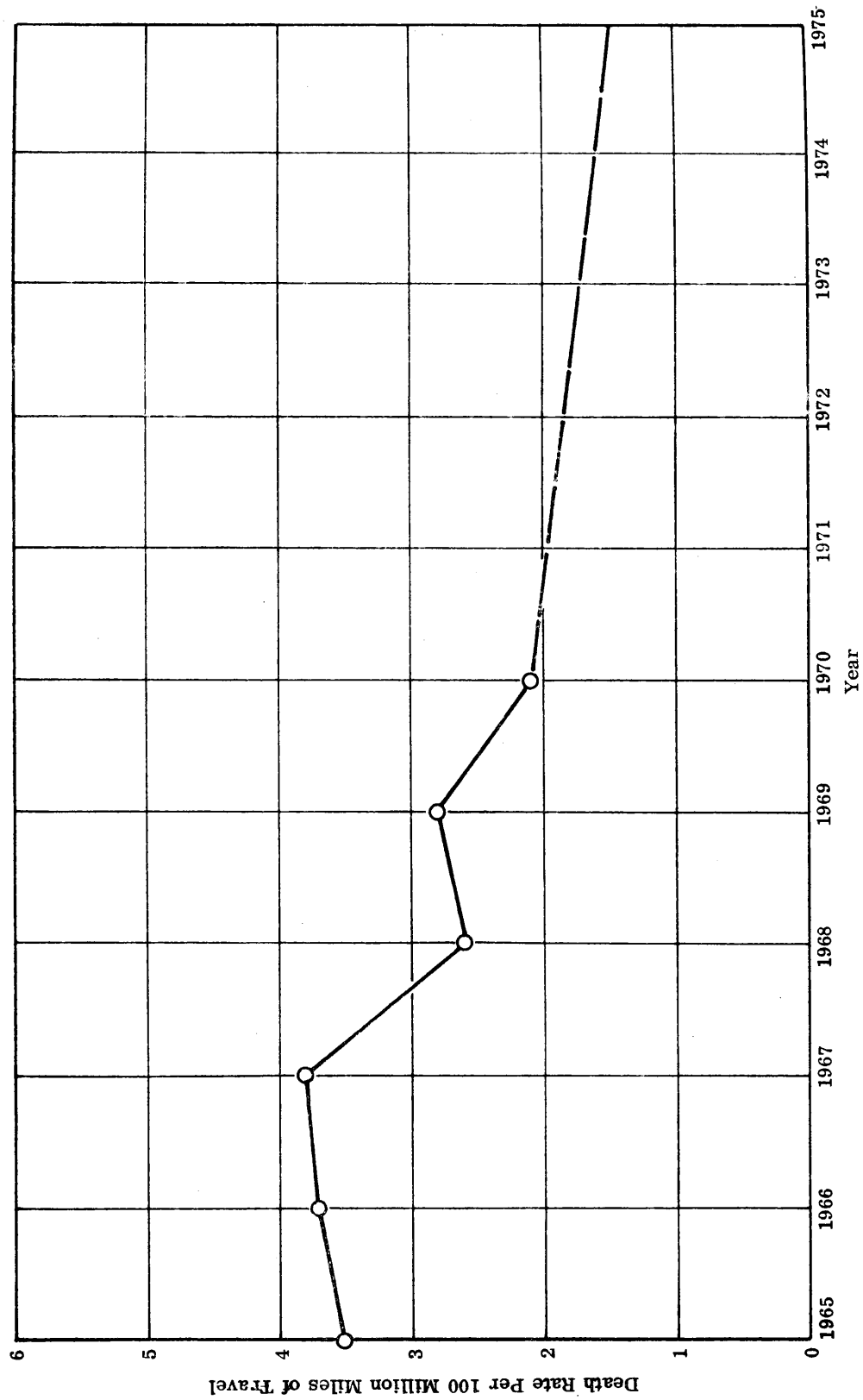
ACCIDENT SUMMARY BY YEARS — INTERSTATE SYSTEM — YEARS 1961 - 1970

YEAR	LENGTH IN MILES	ANNUAL VEHICLE MILES OF TRAVEL (THOUSANDS)	FATAL ACCIDENTS	PERSONS KILLED	INJURY ACCIDENTS	PERSONS INJURED	PROPERTY DAMAGE ACCIDENTS	TOTAL ACCIDENTS	AMOUNT OF PROPERTY DAMAGE	ACCIDENT RATE	INJURY RATE	DEATH RATE
1961	126.36	409,611	16	21	168	286	442	626	\$ 427,200	153	70	5.1
1962	142.86	486,915	9	9	282	442	699	990	654,300	203	91	1.8
1963	216.69	647,580	17	20	320	497	821	1,158	672,200	179	77	3.1
1964	365.70	1,159,540	32	37	536	849	1,284	1,852	1,248,569	160	73	3.2
1965	468.62	2,115,429	52	73	1,014	1,664	2,596	3,662	2,271,200	173	79	3.5
1966	557.21	2,586,804	73	96	1,200	1,984	2,838	4,111	3,089,400	158	76	3.7
1967	626.96	3,123,253	92	118	1,366	2,126	2,958	4,416	4,021,800	141	68	3.8
1968	666.28	3,759,050	89	98	1,600	2,582	3,684	5,373	4,624,627	143	69	2.6
1969	693.78	4,354,250	108	122	1,782	2,913	4,309	6,199	5,255,359	142	67	2.8
1970	774.00	4,682,993	84	97	1,871	2,914	4,774	6,729	6,069,220	144	62	2.1
PERCENT CHANGE 1970 OVER 1969	+11.56	+7.55	-22.22	-20.49	+4.99	+0.03	+10.79	+8.55	+15.49	+1.41	-7.46	-25.00

Source: Ibid., p. 19.

## EXHIBIT 10

## ACTUAL AND PROJECTED DEATH RATES ON INTERSTATE SYSTEM



## EXHIBIT 11

## ACCIDENT SUMMARY BY YEARS — ARTERIAL AND PRIMARY SYSTEM — YEARS 1961 — 1970

YEAR	LENGTH IN MILES	ANNUAL VEHICLE MILES OF TRAVEL (THOUSANDS)	FATAL ACCIDENTS	PERSONS KILLED	INJURY ACCIDENTS	PERSONS INJURED	PROPERTY DAMAGE ACCIDENTS	TOTAL ACCIDENTS	AMOUNT OF PROPERTY DAMAGE	ACCIDENT RATE	INJURY RATE	DEATH RATE
1961	7,782.59	8,261,576	425	522	7,210	12,139	18,714	26,349	\$13,054,300	319	147	6.3
1962	7,753.10	8,395,817	474	591	8,163	13,727	20,190	28,827	14,793,600	343	163	7.0
1963	7,605.65	8,463,857	467	593	7,810	13,186	18,868	27,145	14,767,400	321	156	7.0
1964	7,606.43	8,283,656	462	589	8,447	14,199	20,837	29,746	15,984,200	359	171	7.1
1965	7,622.43	8,410,173	434	539	8,078	13,234	20,905	29,417	16,223,900	350	157	6.4
1966	7,629.87	8,695,925	465	569	8,540	13,974	21,386	30,391	16,761,400	349	161	6.5
1967	7,643.09	8,983,525	492	618	8,797	14,191	20,165	29,454	18,204,700	328	158	6.9
1968	7,670.97	9,495,714	515	628	9,176	14,950	21,738	31,429	19,726,760	331	157	6.6
1969	7,682.12	9,968,172	529	638	9,625	15,483	24,463	34,617	23,101,690	347	155	6.4
1970	7,688.87	10,060,743	511	620	9,703	15,544	25,403	35,617	24,644,791	354	155	6.2
PERCENT CHANGE 1970 OVER 1969	+0.09	+0.93	-3.40	-2.19	+0.81	+0.39	+3.84	+2.89	+6.68	+2.02	0.00	-3.12

Source: Ibid., p. 46.

EXHIBIT 12

ACTUAL AND PROJECTED DEATH RATES ON ARTERIAL AND PRIMARY SYSTEMS

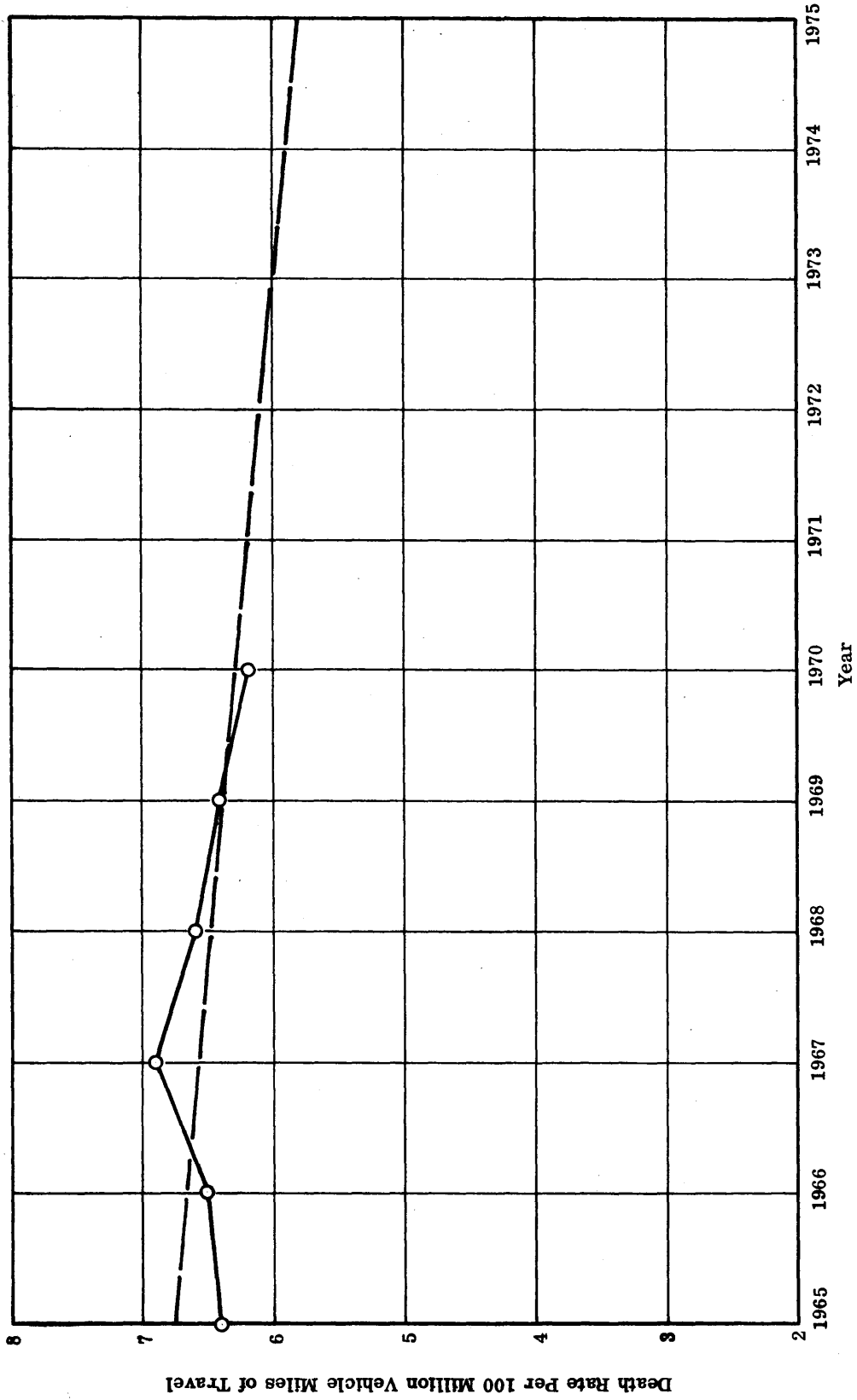




EXHIBIT 13

ACCIDENT SUMMARY BY YEAR — SECONDARY SYSTEM — YEARS 1963 - 1970

YEAR	LENGTH IN MILES	ANNUAL VEHICLE MILES OF TRAVEL	FATAL ACCIDENTS	PERSONS KILLED	INJURY ACCIDENTS	PERSONS INJURED	PROPERTY DAMAGE ACCIDENTS	TOTAL ACCIDENTS	AMOUNT OF PROPERTY DAMAGE	ACCIDENT RATE	INJURY RATE	DEATH RATE
1963	41,521.42	2,469,417	147	166	3,820	5,885	10,363	14,330	\$ 5,624,108	580	238	6.7
1964	41,515.73	2,583,456	155	182	4,125	6,183	11,000	15,280	6,087,404	591	239	7.0
1965	41,673.26	2,786,025	188	222	4,478	6,748	12,237	16,903	7,047,531	607	242	8.0
1966	41,865.87	2,978,196	163	199	4,933	7,390	13,276	18,372	8,011,614	617	248	6.7
1967	41,983.89	3,195,943	185	222	5,044	7,579	12,231	17,460	7,956,554	546	237	6.9
1968	41,838.89	3,320,096	182	201	5,474	8,110	14,063	19,719	9,915,392	594	244	6.1
1969	41,971.36	3,568,331	242	276	5,737	8,500	15,309	21,288	11,659,717	597	238	7.7
1970	41,937.35	3,711,240	205	235	5,792	8,434	16,316	22,313	12,324,991	601	227	6.3
PERCENT CHANGE 1970 OVER 1969	-0.08	+4.00	-15.29	-14.86	+0.96	-0.78	+6.58	+4.81	+5.71	+0.67	-4.62	-18.18

Source: Ibid., p. 133.

EXHIBIT 14

ACTUAL AND PROJECTED DEATH RATES ON SECONDARY SYSTEM

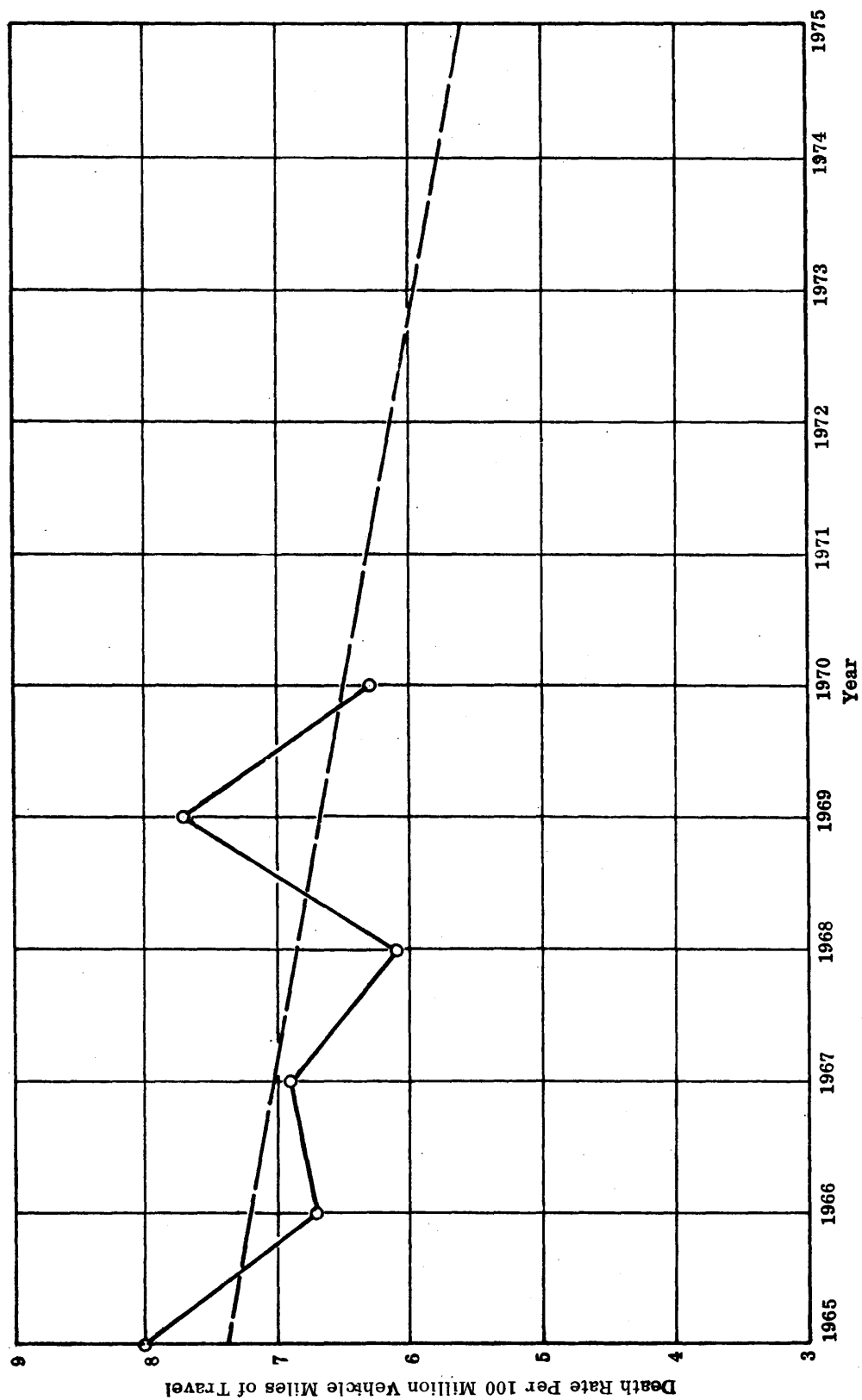


EXHIBIT 15  
ACTUAL AND PROJECTED VEHICLE ACCIDENTS

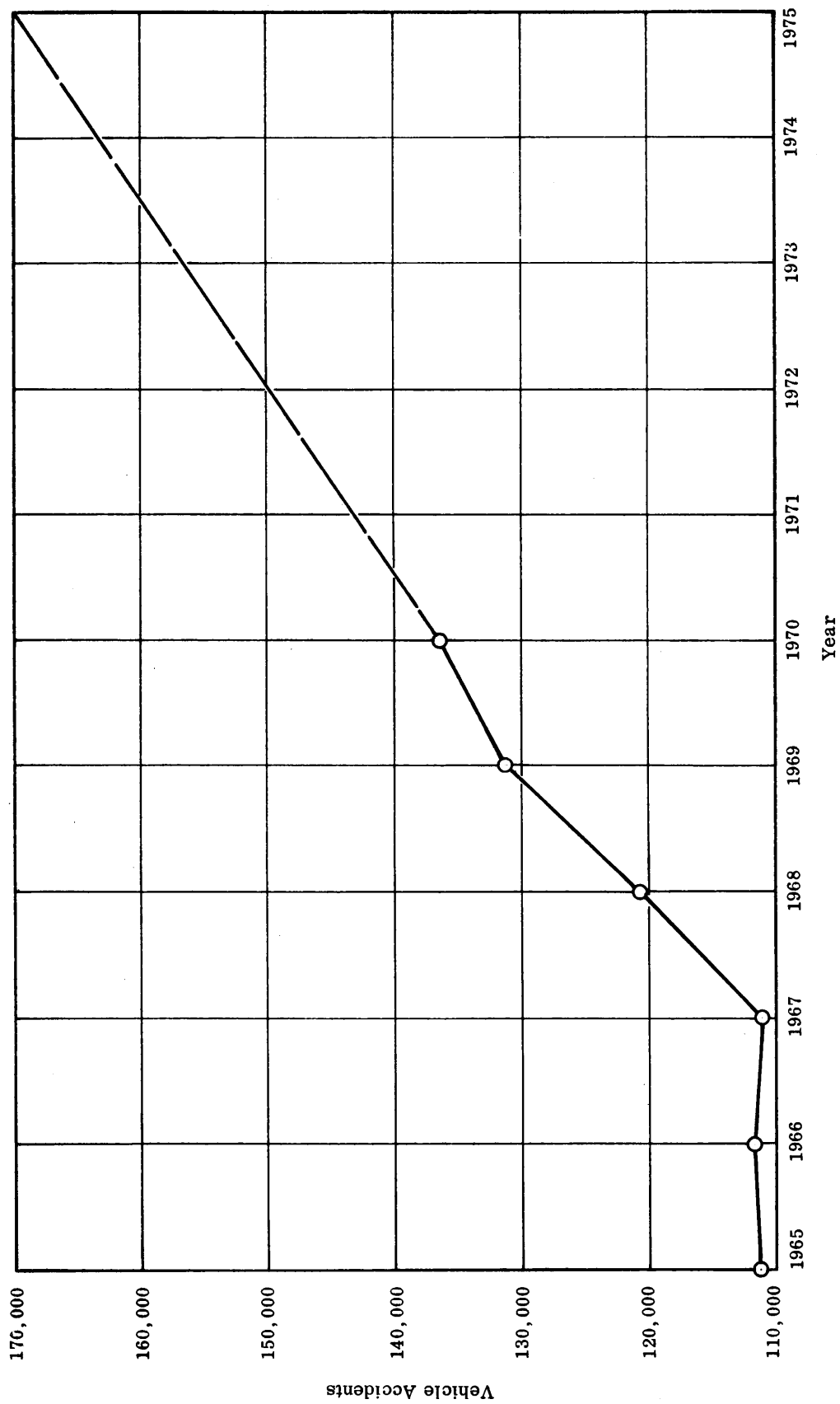


EXHIBIT 16

ACTUAL AND PROJECTED NUMBER OF PERSONS INJURED IN MOTOR VEHICLE ACCIDENTS

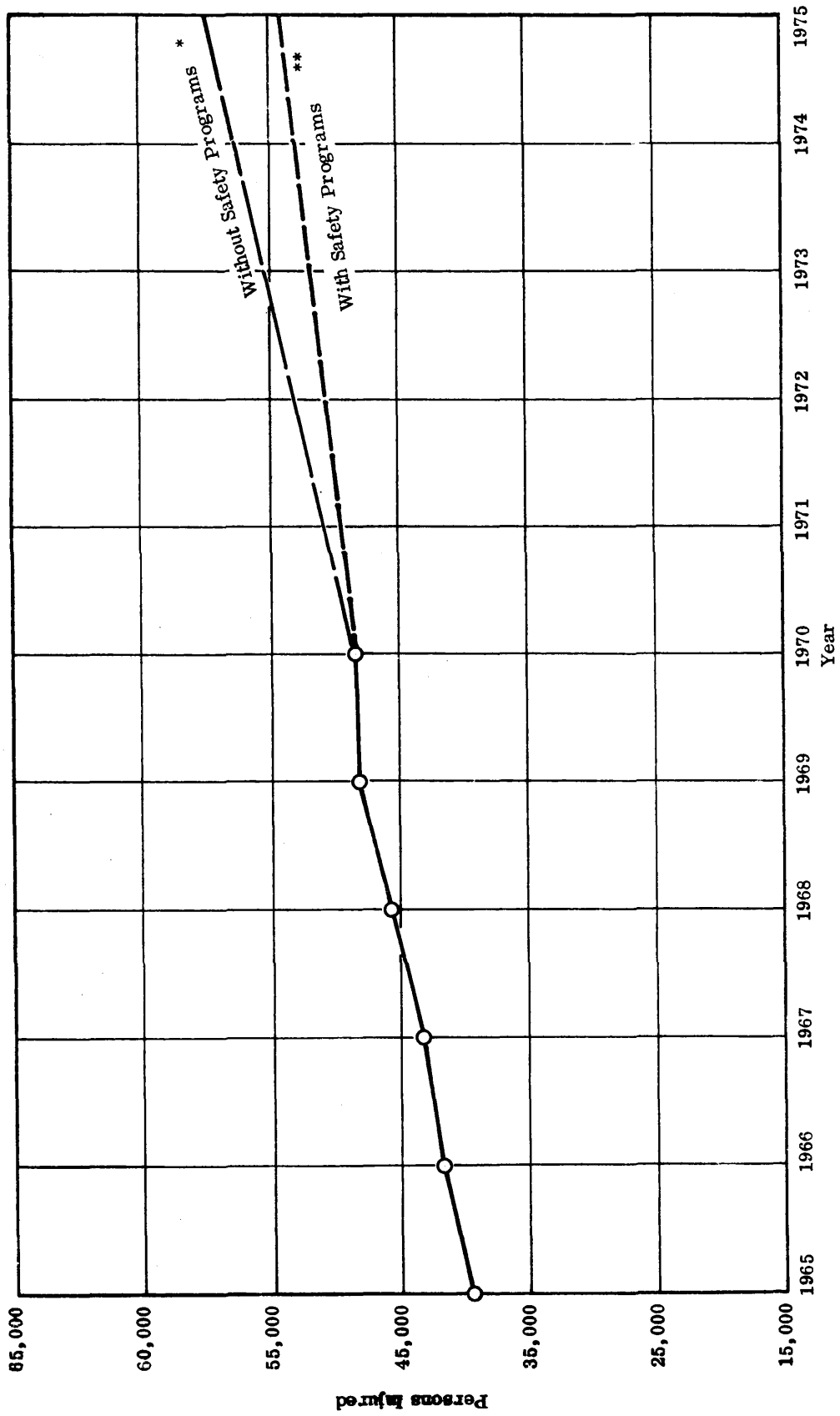


EXHIBIT 17  
ACTUAL AND PROJECTED HIGHWAY INJURY ACCIDENTS

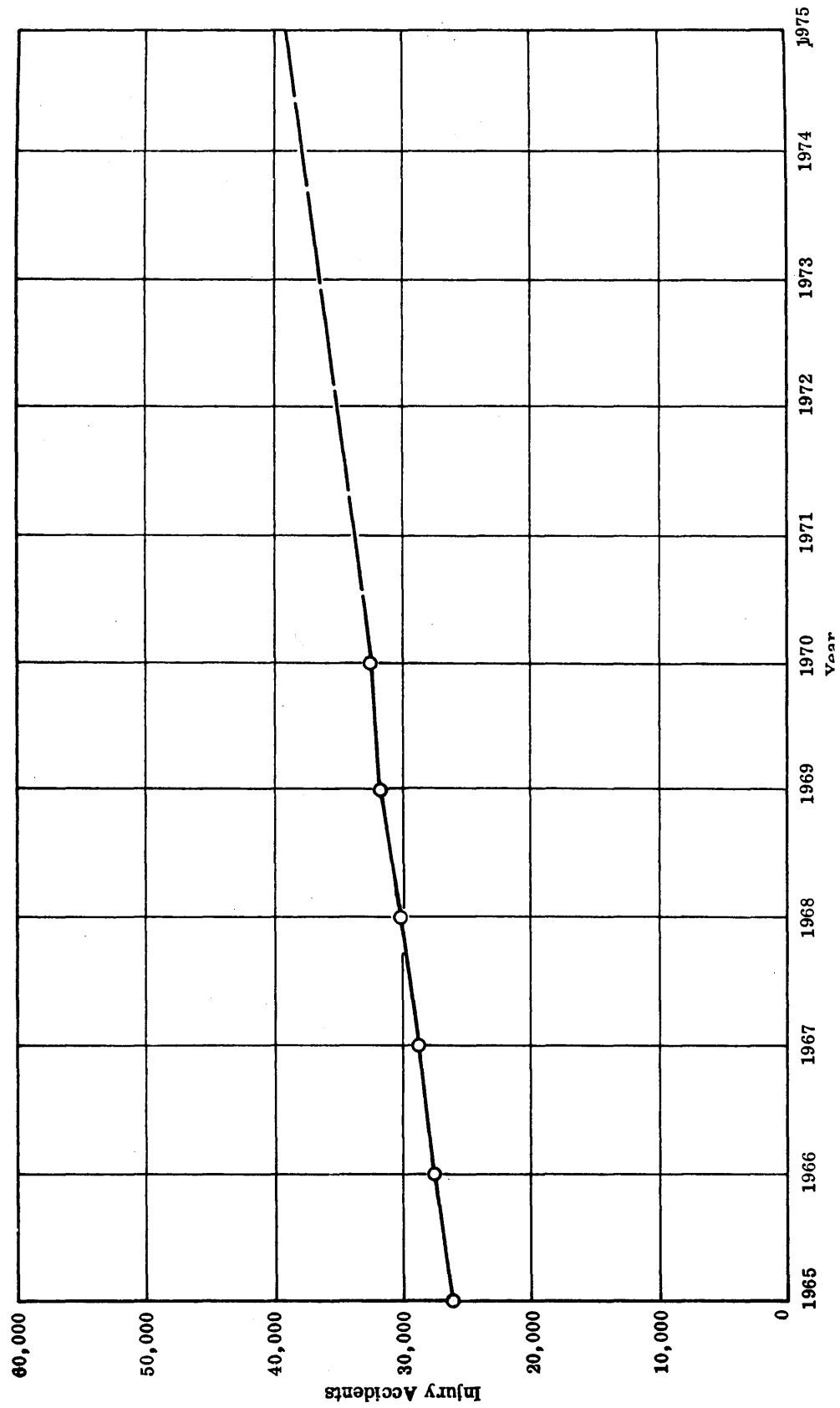


EXHIBIT 18  
ACTUAL AND PROJECTED TRAFFIC FATALITIES

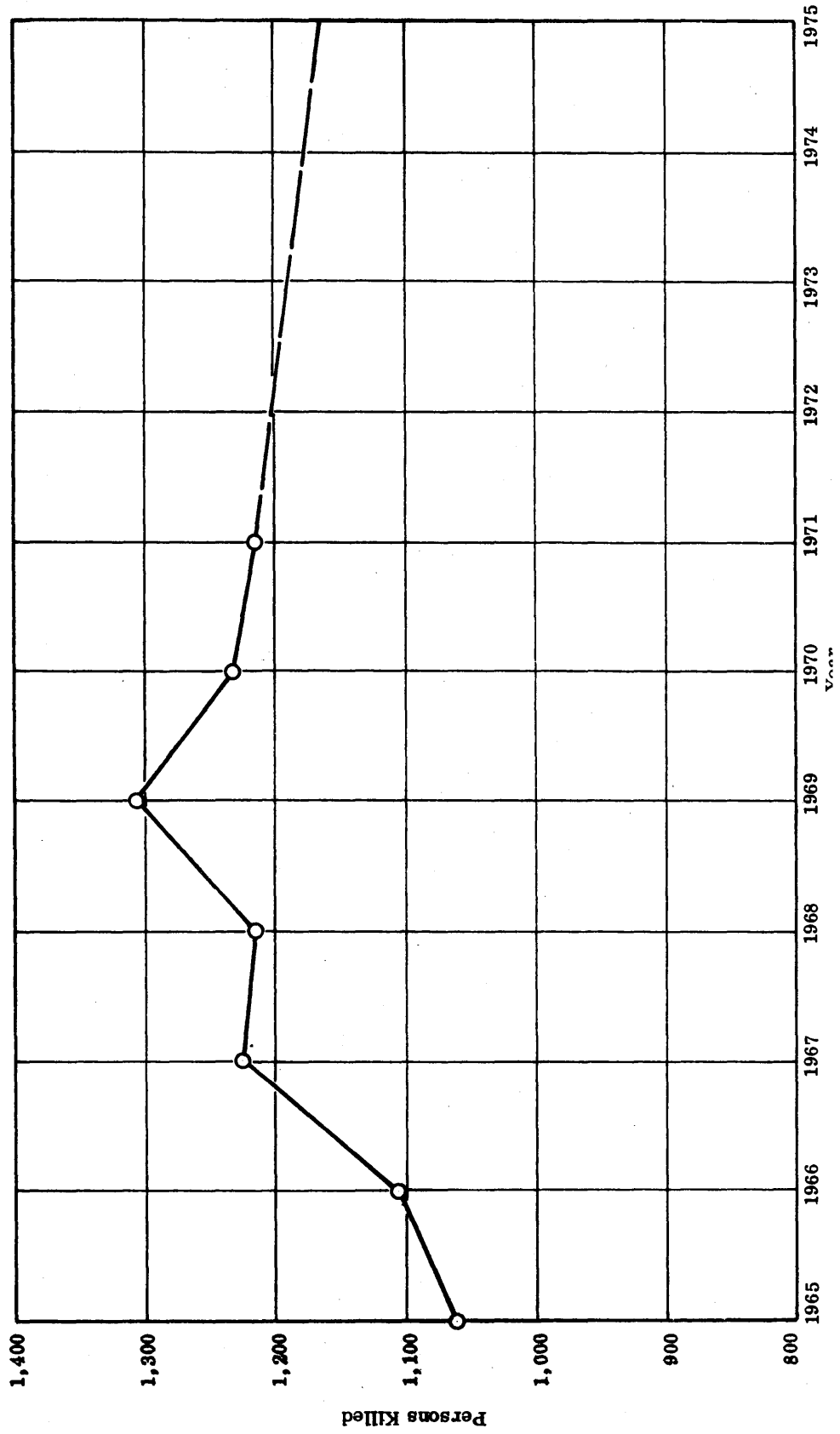


EXHIBIT 19  
ACTUAL AND PROJECTED FATAL ACCIDENTS

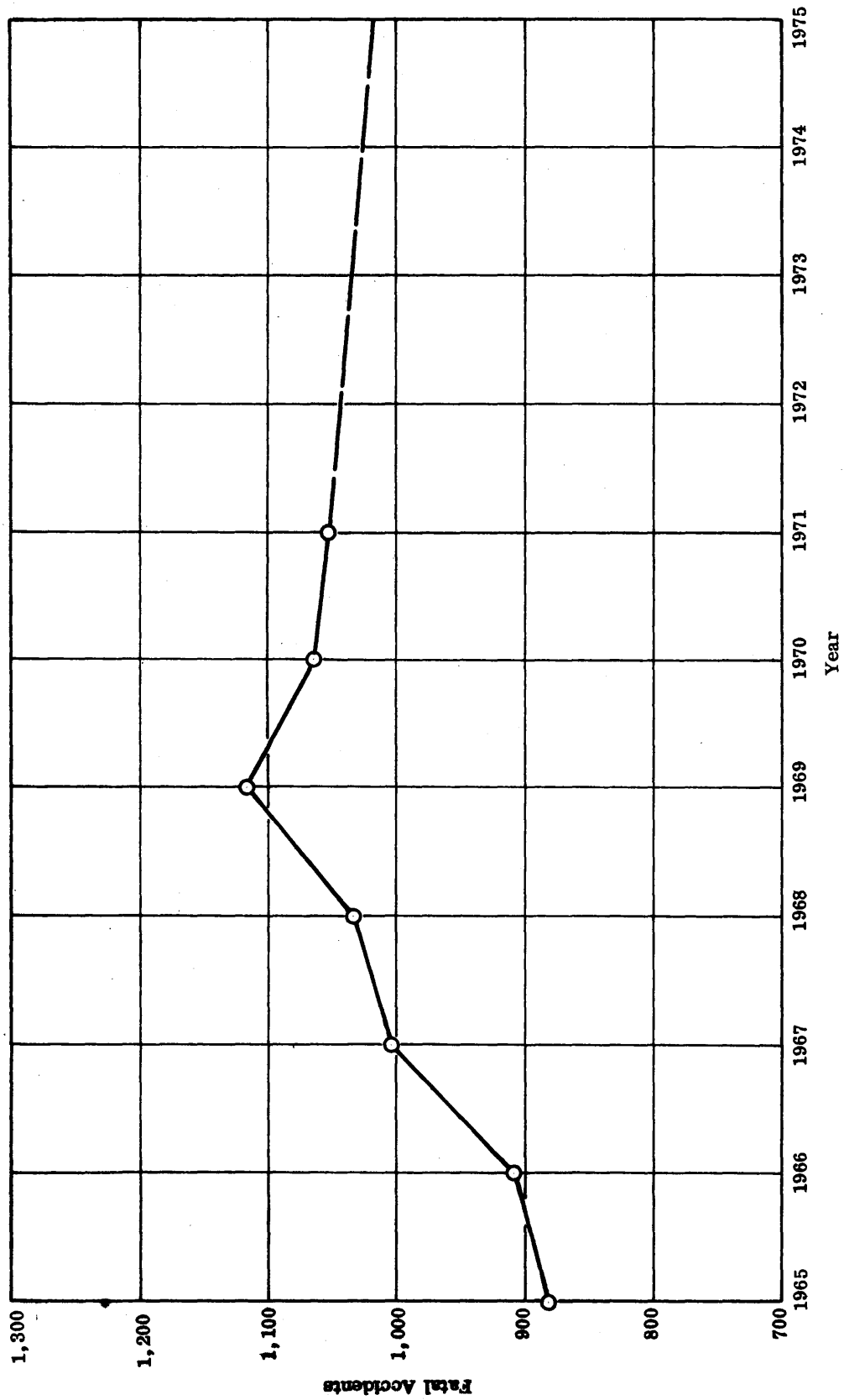
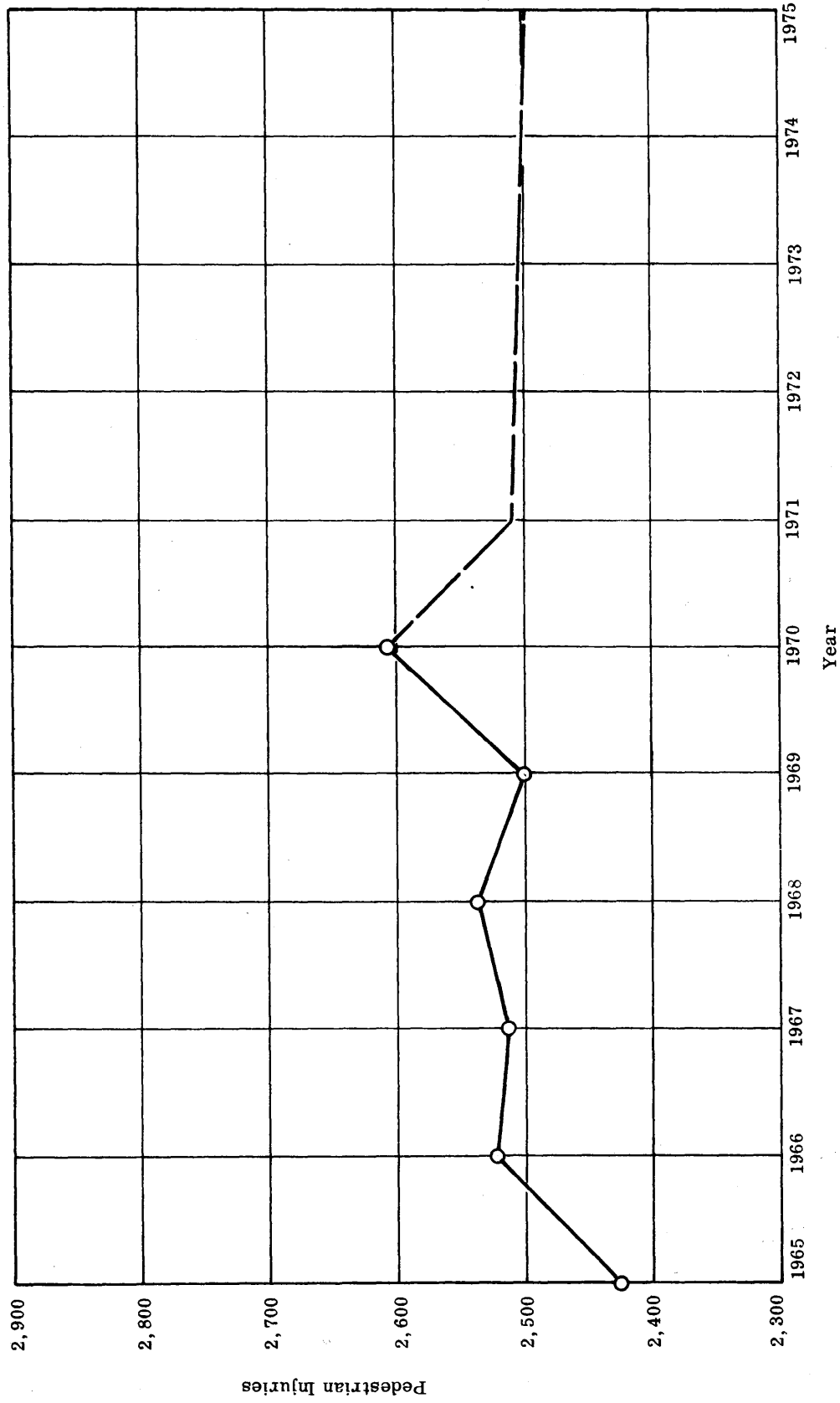


EXHIBIT 20

ACTUAL AND PROJECTED PEDESTRIAN INJURIES



1188



EXHIBIT 21  
ACTUAL AND PROJECTED PEDESTRIAN INJURIES

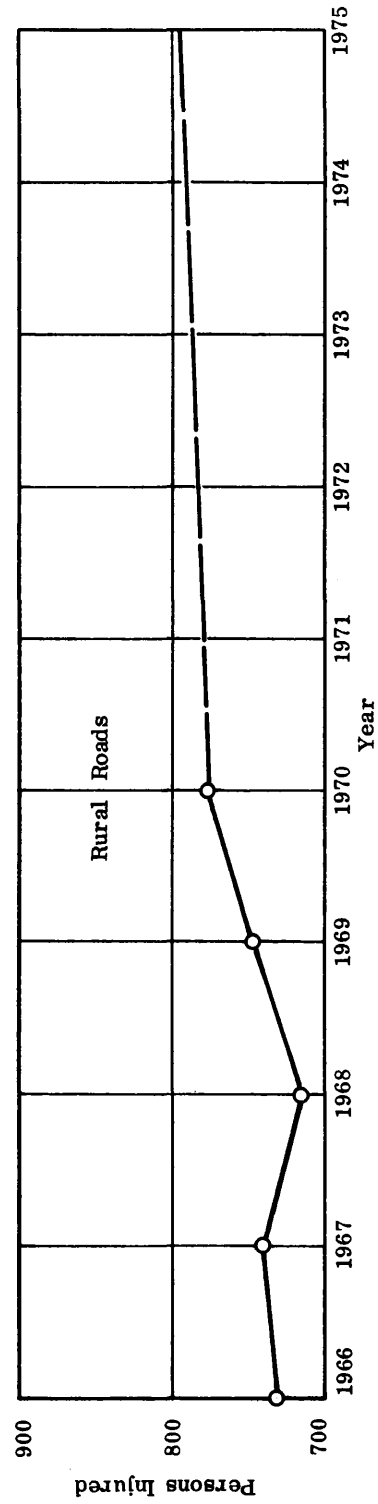
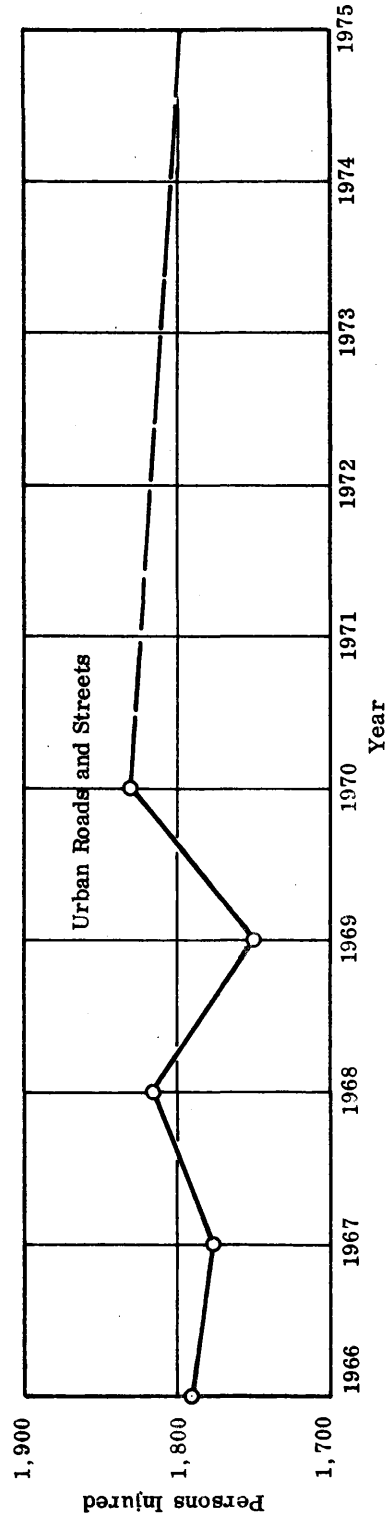


EXHIBIT 22  
ACTUAL AND PROJECTED PEDESTRIAN FATALITIES

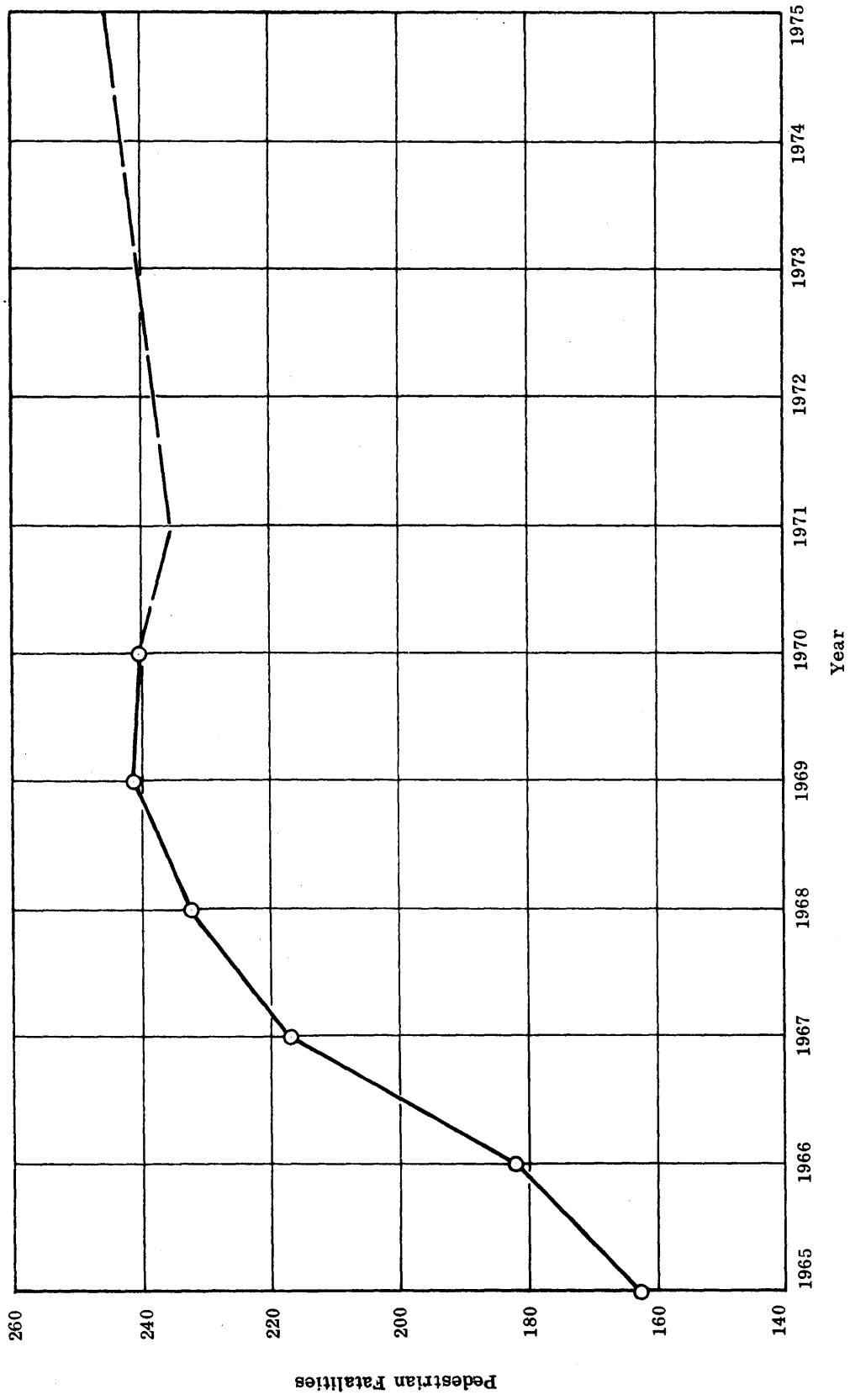


EXHIBIT 23

ACTUAL AND PROJECTED PEDESTRIAN DEATHS -- URBAN ROADS AND STREETS

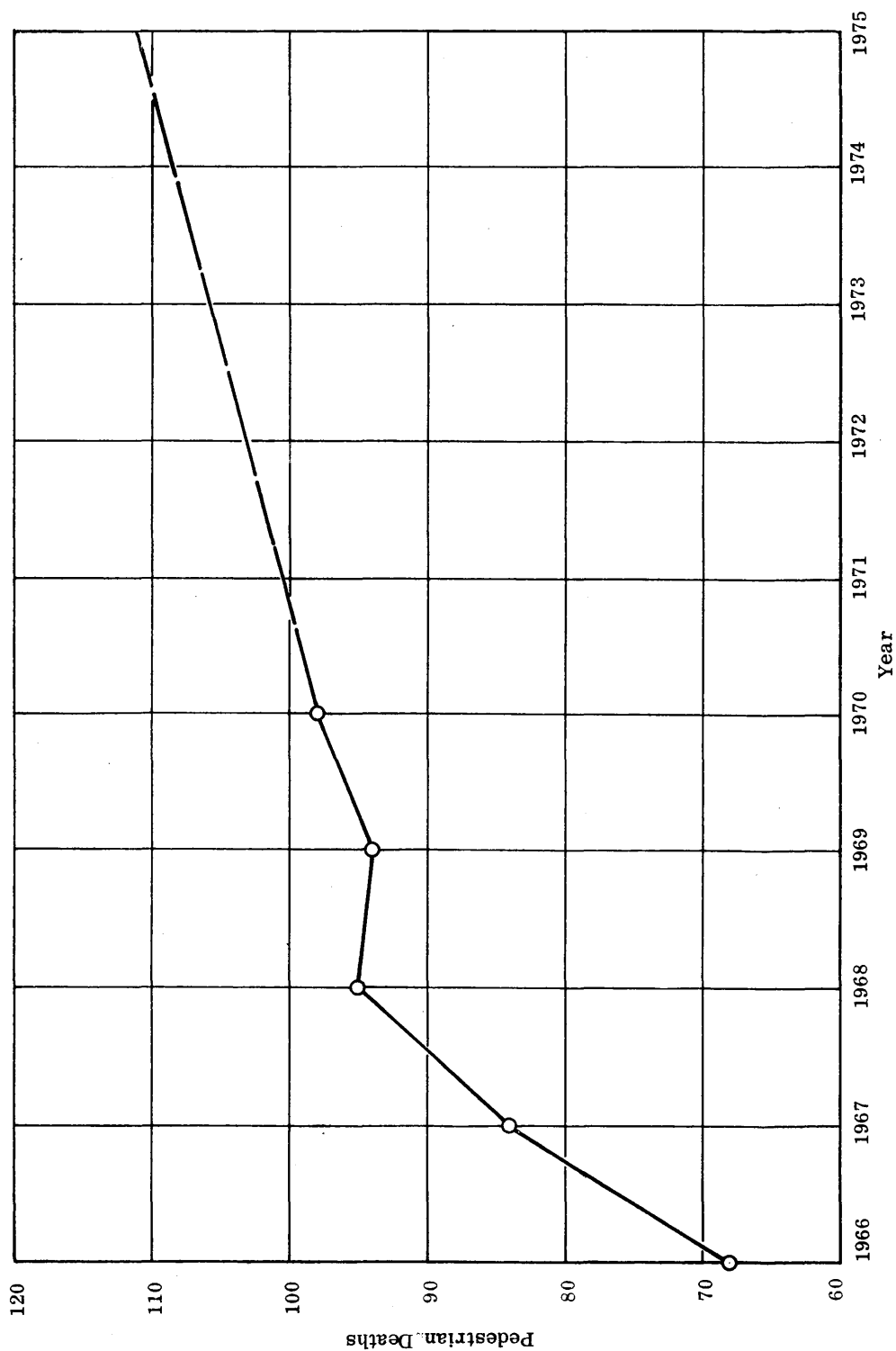
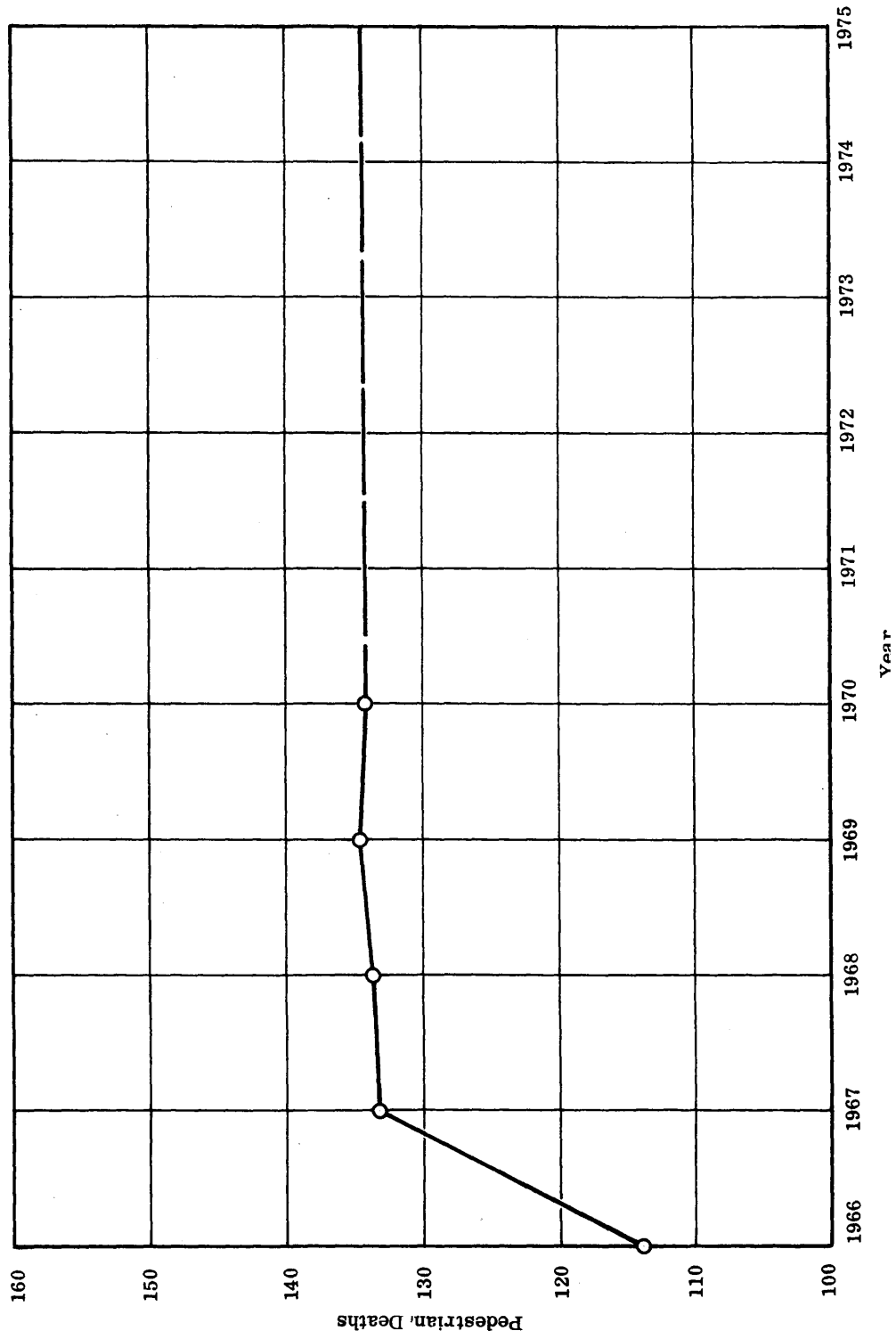


EXHIBIT 24

ACTUAL AND PROJECTED PEDESTRIAN DEATHS - RURAL ROADS



LINEAR REGRESSION EQUATION OF VEHICLE MILES OF TRAVEL  
AND PERSONS INJURED TO PROJECT THE NUMBER OF PERSONS INJURED  
FOR 1971 USING THE LEAST SQUARES TECHNIQUE

THE REGRESSION EQUATION IS:

$$Y = 16043.6 + 1158.27 X$$

S T A T I S T I C S   O F   T H E   S A M P L E

COEFFICIENT OF CORRELATION = .984613

THERE IS A -

0.05 PROBABILITY THAN AN R OF .81      WILL OCCUR RANDOMLY

0.01 PROBABILITY THAT AN R OF .92      WILL OCCUR RANDOMLY

COEFFICIENT OF DETERMINATION = .969462

STANDARD ERROR OF ESTIMATE OF THE POPULATION = 705.298

UNASSOC SUM OF SQUARES= 1.98977 E 6

TOTAL SUM OF SQUARES= 65157328

T-STATISTIC= 11.2687    DEG. OF FREEDOM= 4

DO YOU WANT A FULL PRINTOUT OR PROJECTIONS ONLY

1=FULL PRINT, 0=PROJECTIONS, 2=STOP PROGRAM

?1

INDEPENDENT VARIABLE [X] DATA:

MEAN = 24.4717

STANDARD DEVIATION = 3.06868

DEPENDENT VARIABLE [Y] DATA:

MEAN = 44388.5

STANDARD DEVIATION = 3609.91

S.E.P. = STANDARD ERROR OF ANY POINT ON REGRESSION LINE

X-ACTUAL	Y-ACTUAL	Y-FOR	[A-F]/F	FOR/ACT	S.E.P.
20.55	39263	39846.1	-.0147	1.01485	495.372
21.64	41849	41108.7	.018	.982309	409.417
23.66	43122	43448.4	-.0076	1.00757	299.78
25.61	45693	45707.	-.0004	1.00031	310.802
26.95	48050	47259.1	.0167	.98354	384.447
28.42	48354	48961.7	-.0125	1.01257	497.605

P R O J E C T I O N S

95 PCT. CONFIDENCE INTERVAL = PROJECTION + OR - 2 STANDARD ERRORS

INDEPENDENT

VARIABLE    1971 PROJECTION

95 PCT. CONFIDENCE INTERVAL

28.43

48973.3

47246.

--    50700.6

## EXHIBIT 26

LINEAR REGRESSION EQUATION OF VEHICLE MILES OF TRAVEL  
AND INJURY ACCIDENTS TO PROJECT INJURY ACCIDENTS  
FOR 1971 USING THE LEAST SQUARES TECHNIQUE

THE REGRESSION EQUATION IS:

$$Y = 10485. + 776.142 X$$

S T A T I S T I C S   O F   T H E   S A M P L E

COEFFICIENT OF CORRELATION = .988341

THERE IS A -

0.05 PROBABILITY THAN AN R OF .81 WILL OCCUR RANDOMLY

0.01 PROBABILITY THAT AN R OF .92 WILL OCCUR RANDOMLY

COEFFICIENT OF DETERMINATION = .976819

STANDARD ERROR OF ESTIMATE OF THE POPULATION = 410.213

UNASSOC SUM OF SQUARES= 673099.

TOTAL SUM OF SQUARES= 29036288

T-STATISTIC= 12.9828 DEG. OF FREEDOM= 4

DO YOU WANT A FULL PRINTOUT OR PROJECTIONS ONLY

F=FULL PRINT, O=PROJECTIONS, 2=STOP PROGRAM

?1

INDEPENDENT VARIABLE [X] DATA:

MEAN = 24.4717

STANDARD DEVIATION = 3.06868

DEPENDENT VARIABLE [Y] DATA:

MEAN = 29478.5

STANDARD DEVIATION = 2409.83

S.E.P. = STANDARD ERROR OF ANY POINT ON REGRESSION LINE

X-ACTUAL	Y-ACTUAL	Y-FOR	[A-F]/F	FOR/ACT	S.E.P.
20.55	26079	26434.7	-.0135	1.01364	288.116
21.64	27761	27280.7	.0176	.9827	238.123
23.66	28743	28848.5	-.0037	1.00367	174.357
25.61	30146	30362.	-.0072	1.00717	180.767
26.95	31846	31402.	.0141	.986059	223.601
28.42	32296	32543.	-.0076	1.00765	289.415

P R O J E C T I O N S

95 PCT. CONFIDENCE INTERVAL = PROJECTION + OR - 2 STANDARD ERRORS

INDEPENDENT

VARIABLE 1971 PROJECTION

95 PCT. CONFIDENCE INTERVAL

28.43

32550.7

31546.1

--

33555.4

## EXHIBIT 27

LINEAR REGRESSION EQUATION OF VEHICLE MILES OF TRAVEL  
AND FATALITIES TO PROJECT THE NUMBER OF VEHICLE FATALITIES  
FOR 1971 USING THE LEAST SQUARES TECHNIQUE

THE REGRESSION EQUATION IS:

$$Y = 572.515 + 25.2599 X$$

S T A T I S T I C S   O F   T H E   S A M P L E

COEFFICIENT OF CORRELATION = .866774

THERE IS A -

0.05 PROBABILITY THAN AN R OF .81 WILL OCCUR RANDOMLY

0.01 PROBABILITY THAT AN R OF .92 WILL OCCUR RANDOMLY

COEFFICIENT OF DETERMINATION = .751298

STANDARD ERROR OF ESTIMATE OF THE POPULATION = 49.8621

UNASSOC SUM OF SQUARES= 9944.91

TOTAL SUM OF SQUARES= 39987.3

T-STATISTIC= 3.47613 DEG. OF FREEDOM= 4

DO YOU WANT A FULL PRINTOUT OR PROJECTIONS ONLY

1=FULL PRINT, 0=PROJECTIONS, 2=STOP PROGRAM

71

INDEPENDENT VARIABLE [X] DATA:

MEAN = 24.4717

STANDARD DEVIATION = 3.06868

DEPENDENT VARIABLE [Y] DATA:

MEAN = 1190.67

STANDARD DEVIATION = 89.4286

S.E.P. = STANDARD ERROR OF ANY POINT ON REGRESSION LINE

X-ACTUAL	Y-ACTUAL	Y-FOR	[A-F]/F	FOR/ACT	S.E.P.
20.55	1062	1091.61	-.0272	1.02788	35.0211
21.64	1106	1119.14	-.0118	1.01188	28.9443
23.66	1223	1170.16	.0451	.956798	21.1934
25.61	1218	1219.42	-.0012	1.00117	21.9726
26.95	1304	1253.27	.0404	.961096	27.1791
28.42	1231	1290.4	-.0461	1.04825	35.1789

P R O J E C T I O N S

95 PCT. CONFIDENCE INTERVAL = PROJECTION + OR - 2 STANDARD ERRORS

INDEPENDENT

VARIABLE 1971 PROJECTION

95 PCT. CONFIDENCE INTERVAL

28.43

1290.65

1168.54

-- 1412.77

## EXHIBIT 28

LINEAR REGRESSION EQUATION OF VEHICLE MILES OF TRAVEL  
AND FATAL ACCIDENTS TO PROJECT THE NUMBER OF FATAL ACCIDENTS  
IN 1971 USING THE LEAST SQUARES TECHNIQUE

THE REGRESSION EQUATION IS:

$$Y = 318.873 + 27.9218 X$$

S T A T I S T I C S   O F   T H E   S A M P L E

COEFFICIENT OF CORRELATION = .935293

THERE IS A -

0.05 PROBABILITY THAN AN R OF .81 WILL OCCUR RANDOMLY

0.01 PROBABILITY THAT AN R OF .92 WILL OCCUR RANDOMLY

COEFFICIENT OF DETERMINATION = .874773

STANDARD ERROR OF ESTIMATE OF THE POPULATION = 36.2453

UNASSOC SUM OF SQUARES= 5254.88

TOTAL SUM OF SQUARES= 41962.8

T-STATISTIC= 5.28601 DEG. OF FREEDOM= 4

DO YOU WANT A FULL PRINTOUT OR PROJECTIONS ONLY

1=FULL PRINT, 0=PROJECTIONS, 2=STOP PROGRAM

?1

INDEPENDENT VARIABLE [X] DATA:

MEAN = 24.4717

STANDARD DEVIATION = 3.06868

DEPENDENT VARIABLE [Y] DATA:

MEAN = 1002.17

STANDARD DEVIATION = 91.611

S.E.P. = STANDARD ERROR OF ANY POINT ON REGRESSION LINE

X-ACTUAL	Y-ACTUAL	Y-FOR	[A-F]/F	FOR/ACT	S.E.P.
20.55	881	892.667	-.0131	1.01324	25.4572
21.64	908	923.101	-.0164	1.01663	21.04
23.66	1005	979.503	.026	.97463	15.4057
25.61	1036	1033.95	.0019	.998022	15.9721
26.95	1117	1071.37	.0425	.959146	19.7568
28.42	1066	1112.41	-.0418	1.04354	25.5719

P R O J E C T I O N S

95 PCT. CONFIDENCE INTERVAL = PROJECTION + OR - 2 STANDARD ERRORS

INDEPENDENT

VARIABLE 1971 PROJECTION

95 PCT. CONFIDENCE INTERVAL

28.43

1112.69

1023.92

--

1201.46



## EXHIBIT 29

## SUMMARY OF PROJECTED HIGHWAY CRASH STATISTICS

Year	Activity	Projections
1971	Injury Accidents	33,588
	Injuries	50,288
	Fatal Accidents	1,053
	Fatalities	1,215
1972	Injury Accidents	34,931
	Injuries	52,300
	Fatal Accidents	1,045
	Fatalities	1,200
1973	Injury Accidents	36,329
	Injuries	54,392
	Fatal Accidents	1,035
	Fatalities	1,190
1974	Injury Accidents	37,782
	Injuries	56,567
	Fatal Accidents	1,025
	Fatalities	1,175
1975	Injury Accidents	39,293
	Injuries	58,830
	Fatal Accidents	1,020
	Fatalities	1,165

1192

## EXHIBIT 30

## DISTRIBUTION OF FEDERAL FUNDS FOR FY 1968

Standard 300 - Planning and Administration

<u>Subdivision or Agency</u>	<u>Amount</u>
Virginia Traffic Safety Study Commission	\$ 7,019.60
Virginia Highway Research Council	11,375.38
Virginia State Police	3,117.35
Total Federal Funding - 300	\$ 21,512.33

Standard 304 - Driver Education

Portsmouth	\$ 55,994.75
Virginia Beach	62,382.79
Total Federal Funds to localities - 304	118,377.54
Department of Education	3,500.00
Total Federal Funding - 304	\$121,877.54

Standard 307 - Traffic Courts

Virginia Highway Research Council	\$ 3,150.00
Total Federal Funding - 307	\$ 3,150.00

Standard 310 - Traffic Records

Division of Motor Vehicles	\$344,454.48
Total Federal Funding - 310	\$344,454.48

Standard 311 - EMS

Department of Health	\$ 56,400.00
Total Federal Funding - 311	\$ 56,400.00
Total Federal Funding to localities	\$118,377.54
Total Federal Funds for FY 1968	\$547,394.35

## DISTRIBUTION OF FEDERAL FUNDS FOR FY 1969

Standard 300 - Planning and Administration

<u>Subdivision or Agency</u>	<u>Amount</u>
Virginia Highway Safety Division	\$115,847.00
Total Federal Funds -300	\$115,847.00

Standard 304 - Driver Education

Albemarle County	\$ 19,295.81
Alleghany County	350.00
Arlington County	90,842.00
Bristol City	565.00
Chesapeake City	135,735.00
Clifton Forge City	17,293.00
Danville City	16,152.85
Fairfax City	9,250.00
Fairfax County	97,203.17
Fauquier County	2,000.00
Fluvanna County	1,370.00
Franklin County	696.09
Hampton City	7,156.75
Henrico County	198,743.87
Martinsville City	21,062.50
Patrick County	100.00
Portsmouth City	88,184.25
Prince Edward County	1,000.00
Prince William County	15,750.00
Richmond City	113,857.00
Roanoke City	22,739.00
Stafford County	3,000.00
Virginia Beach City	12,600.00
Total Federal Funds to localities - 304	\$874,946.29
State Department of Education	19,408.80
Total Federal Funding - 304	\$894,355.09

## EXHIBIT 31 (continued)

Standard 308 - Alcohol in Relation to Highway Safety

<u>Subdivision or Agency</u>	<u>Amount</u>
State Department of Health	\$ 14,600.00
Total Federal Funding - 308	\$ 14,600.00

Standard 309 - Identification and Surveillance of Accident Locations

City of Richmond	\$ 1,522.57
City of Richmond	2,809.99
Albemarle County	250.00
Gloucester County	850.00
Prince Edward County	200.00
Total Federal Funding to localities - 309	\$ 5,632.56

Standard 310 - Traffic Records

City of Richmond	\$ 18,728.50
Arlington County	8,857.00
Total Federal Funding to localities - 310	27,585.50
Highway Safety Division	87,000.00
Division of Motor Vehicles	15,959.72
Total Federal Funding - 310	\$130,545.22

Standard 311 - EMS

Brunswick County	\$ 4,709.00
Bristol City	16,300.00
Danville City	6,649.97
Dickenson County	2,509.64
Dinwiddie County	5,350.00
Emporia City	1,125.00
Franklin County (Boones Mill)	1,508.51
Franklin County	2,718.30
Giles County	2,750.00

## EXHIBIT 31 (continued)

## Standard 311 - EMS (continued)

<u>Subdivision or Agency</u>	<u>Amount</u>
Hanover County	\$ 4,000.00
King George County	128.00
Lexington City	625.00
Lunenburg County	6,000.00
Middlesex County	4,901.26
Page County	11,427.58
Petersburg City	4,951.00
Prince Edward County	400.00
Prince William County	7,600.00
Southampton County	11,455.77
 Total Federal Funds to localities - 311	 95,109.03
 State Department of Health	 62,028.00
 Total Federal Funding - 311	 \$157,137.03

Standard 315 - Police Traffic Services

Albemarle County	\$ 2,500.00
Charlottesville City	4,371.00
Henrico County	21,895.95
Portsmouth City	65,093.00
Richmond City	5,800.00
 Total Federal Funding to localities - 315	 \$ 99,659.95

Total Federal Funding to localities	\$1,102,933.33
Total Federal Funding for FY 1969	\$1,417,776.85

## EXHIBIT 32

1202

## DISTRIBUTION OF FEDERAL FUNDS FOR FY 1970

Standard 300 - Planning and Administration

<u>Subdivision or Agency</u>	<u>Amount</u>
Virginia Highway Safety Division	\$179,000.00
Total Federal Funds - 300	\$179,000.00

Standard 304 - Driver Education

Bath County	\$ 7,250.00
Bedford County	7,116.64
Bristol City	1,130.00
Charlottesville City	27,000.00
Clarke	21,757.42
Dinwiddie County	5,896.97
Franklin City	610.00
Franklin County	250.00
Galax City	48,034.00
Giles County	1,501.50
Gloucester County	11,180.47
Grayson County	6,265.56
Grayson County	6,777.06
Hampton City	42,000.00
Louisa County	15,767.50
Lynchburg City	27,436.50
Mathews County	4,914.32
New Kent County	3,476.00
Newport News City	38,250.00
Page County	4,117.11
Pulaski County	3,516.00
Richmond County	4,650.00
Southampton County	7,000.00
Staunton City	33,461.00
Virginia Beach	100,000.00
Waynesboro City	6,369.48
Westmoreland County	6,425.00
Wise County	16,000.00
Wythe County	500.00
York County	49,262.50
Total Federal Funds to Localities - 304	\$507,915.03

## Standard 304 - continued

<u>Subdivision or Agency</u>	<u>Amount</u>
Department of Professional and Occupational Registration	\$ 500.00
Virginia State College	22,200.00
State of Virginia	23,135.42
 Total Federal Funding - 304	 \$553,750.45

Standard 306 - Codes and Laws

Virginia Highway Safety Division	\$ 3,000.00
 Total Federal Funding - 306	 \$ 3,000.00

Standard 307 - Traffic Courts

Virginia Highway Safety Division	\$ 48,150.00
 Total Federal Funding - 307	 \$ 48,150.00

Standard 309 - Identification and Surveillance of Accident Locations

Staunton City	\$ 1,650.00
 Total Federal Funds to localities - 309	 \$ 1,650.00

Standard 310 - Traffic Records

Newport News	\$ 14,400.00
 Total Federal Funds to localities - 310	 14,400.00
Virginia Highway Safety Division	10,000.00
 Total Federal Funds - 310	 \$ 24,400.00

1204

Standard 311 - EMS

<u>Subdivision or Agency</u>	<u>Amount</u>
Augusta County	\$ 3,600.00
Bedford County	1,943.75
Botetourt County	5,100.00
Buckingham County	5,624.17
Brunswick County	4,624.08
Craig County	2,000.00
Franklin City	8,350.00
Franklin County	4,050.00
Franklin County	3,997.05
Fauquier County	5,150.00
Galax City	5,000.00
Giles County	750.00
Greene County	6,400.00
Greenville County	450.00
Isle of Wight County	7,500.00
King George County	6,450.00
King William County	5,050.00
Loudoun County	16,668.16
Martinsville City	8,200.00
Montgomery County	600.00
Montgomery County	400.00
Meklenberg County	8,500.00
Nelson County	2,000.00
Northampton County	1,000.00
Pulaski County	2,600.00
Russell County	2,800.00
Rappahannock County	5,354.37
Shenandoah County	4,485.75
Scott County	5,000.00
Sussex County	5,000.86
Tazewell County	5,091.75
Winchester City	8,000.00
Wythe County	4,750.00
York County	5,603.00
 Total Federal Funds to localities - 311	 162,092.94
 Department of Health	 51,492.08
Department of Health	62,028.00
 Total Federal Funds - 311	 \$275,613.02



Standard 315 - Police Traffic Services

<u>Subdivision or Agency</u>	<u>Amount</u>
Buena Vista City	\$ 650.00
Campbell County	43,300.00
Hanover County	1,000.00
Petersburg City	4,538.00
Roanoke County	350.00
Virginia Beach	18,314.00
 Total Federal Funds to localities - 315	 68,152.00
 State Police	 252,636.00
 Total Federal Funds - 315	 \$353,788.00

Standard 316 - Debris Hazard Control and Cleanup

Virginia Highway Safety Division	\$ 40,000.00
Virginia Department of Highways	48,241.00
 Total Federal Funds - 316	 \$ 88,241.00
 Total Federal Funding to localities	 \$754,209.97
 Total Federal Funding for 1970	 \$1,527,592.97

## EXHIBIT 33

## 1206 DISTRIBUTION OF FEDERAL FUNDS FOR FY 1971

Standard 300 - Planning and Administration

<u>Subdivision or Agency</u>	<u>Amount</u>
Virginia Highway Safety Division	\$213,150.00
Total Federal Funding - 300	213,150.00

Standard 304 - Driver Education

Arlington Co.	40,295.00
Buchanan Co.	43,997.50
Carroll Co.	48,770.00
Dinwiddie Co.	7,967.00
Fairfax City	9,300.00
Fairfax Co.	76,723.10
Falls Church City	7,105.00
Grayson Co.	1,895.00
King George	8,800.00
King William	2,900.00
Lancaster Co.	7,850.00
Lexington City	15,359.05
Madison Co.	14,265.00
New Kent Co.	4,551.00
Newport News City	100,000.00
Northampton Co.	10,400.00
Northumberland Co.	4,500.00
Norton City	31,777.50
Prince William Co.	12,775.00
Richmond City	48,800.00
Roanoke Co.	12,800.00
Russell Co.	9,169.00
Virginia Beach City	130,521.05
Waynesboro City	4,542.50
Wise Co.	15,000.00
York Co.	6,605.00
Total Federal Funding - 304	\$682,368.20
Highway Safety Division	6,000.00
State Department of Education	12,742.00
Total Federal Funds to Agencies	18,742.00
Total Federal Funding - 304	\$695,410.20

## EXHIBIT 33 (continued)

Amount

1267

Standard 305 - Driver Testing and Licensing

Division of Motor Vehicles	\$104,346.00
Total Federal Funding	104,346.00

Standard 306 - Codes and Laws

Virginia Highway Safety Division	4,375.00
Total Federal Funding	4,375.00

Standard 308 - Alcohol and Drugs

Staunton City	2,875.00
Virginia Highway Safety Division	67,975.00
Total Federal Funding to Localities - 308	2,875.00
Total Federal Funding - 308	70,850.00

Standard 309 - Identification and Surveillance of Accident Locations

Virginia Highway Safety Division	15,250.00
Total Federal Funding - 309	15,250.00

Standard 310 - Traffic Records

Arlington Co.	8,629.50
Virginia Highway Safety Division	26,970.00
Total Federal Funding to Localities	8,629.50
Total Federal Funding - 310	35,599.50

Standard 311 - Emergency Medical Services

Augusta Co.	6,750.00
Botetourt Co.	5,300.00
Charlotte Co.	7,911.00
Craig Co.	700.00
Culpeper Co.	4,500.00
Dickenson Co.	2,033.70
Fairfax Co.	9,800.00

Standard 311 - Emergency Medical Services (Continued)	Amount
Frederick Co.	5,750.00
Fries, Town of	5,090.00
Giles Co.	9,000.00
Gloucester Co.	3,898.00
Goochland Co.	7,227.50
Greene Co.	200.00
Hanover Co.	5,625.00
Harrisonburg City	5,450.00
Lee Co.	4,325.50
Loudoun Co.	7,051.25
Mathews Co.	3,618.05
Middlesex Co.	3,750.00
Montgomery Co.	6,318.30
Page Co.	13,149.00
Prince William Co.	1,746.80
Pulaski Co.	3,310.70
Radford City	5,000.00
Rappahannock Co.	967.50
Roanoke City	12,500.00
Roanoke Co.	4,125.19
Rockbridge Co.	1,975.50
Rockingham Co.	4,523.50
Shenandoah Co.	5,945.77
Smyth Co.	2,034.50
Tazewell Co.	3,886.64
Vinton, Town of	3,378.00
Washington Co.	10,000.00
Westmoreland Co.	10,500.00
Wise Co.	13,789.19
Total Federal Funding to Localities - 311	\$201,139.59
Virginia Department of Health	9,404.92
Total Federal Funds - 311	\$210,544.51

Standard 312 - Highway Design, Construction and Maintenance

Highway Safety Division	33,000.00
Total Federal Funds - 312	33,000.00

Standard 313 - Traffic Control Devices

Highway Safety Division	7,200.00
Total Federal Funds - 313	7,200.00

Standard 314 - Pedestrian Safety

Highway Safety Division	16,000.00
Total Federal Funds - 314	16,000.00

Standard 314 - Police Traffic Services

Accomac Co.	447.60
Amelia Co.	10,672.00
Arlington Co.	8,884.00
Big Stone Gap (Town of)	750.00
Emporia City	2,100.00
Hanover Co.	1,250.00
Henrico Co.	9,885.15
Loudoun Co.	1,000.00
Lynchburg City	1,981.86
Nansemond Co.	2,600.00
Norfolk City	17,661.00
Norton City	1,250.00
Pennington Gap City	1,650.00
Prince William	4,118.00
Roanoke Co.	550.00
Vinton City	6,500.00
Washington Co.	1,400.00
Waynesboro City	1,150.00
State Police	185,007.19
Highway Safety Division	7,800.00
Old Dominion University	584.00
Law Enforcement Training Standards Comm.	9,250.00
Total Federal Funding to Agencies	202,641.19
Total Federal Funding to Localities	91,483.61
Total Federal Funding	276,490.80
Total Federal Funding to Localities	986,795.90
Total Federal Funding for 1971	\$1,682,216.01

## DISTRIBUTION OF FEDERAL FUNDS FOR FY 1972

Standard 300 - Planning and Administration

Highway Safety Division	\$180,000.00
Total Federal Funding	\$180,000.00

Standard 303 - Motorcycle Safety

Highway Safety Division	10,000.00
Total Federal Funding - 303	\$ 10,000.00

Standard 304 - Driver Education

Clifton Forge.	9,667.50
Galax City	7,400.00
Dickenson Co.	9,880.00
Halifax Co.	32,100.00
Lee Co.	28,318.85
Madison Co.	12,450.00
Middlesex Co.	450.00
Northampton Co.	8,100.00
Nottoway Co.	17,500.00
Patrick Co.	15,200.00
York Co.	21,350.00
Richmond Co.	300.00
Woodrow Wilson Rehabilitation Center	64,645.00
Russell Co.	7,746.78
Pulaski Co.	50,000.00
Department of Education	25,405.96
Highway Safety Division ETV	2,151.00
Carroll Co.	14,800.00

Total Federal Funding to Localities - 304	\$299,908.13
---	--------------

Total Federal Funds - 304	\$327,465.09
---------------------------	--------------

Standard 305 - Driver Licensing

Division of Motor Vehicles	177,500.00
Total Federal Funding - 305	\$177,500.00

Standard 306 - Codes and Laws

Virginia Highway Safety Division (Legislative Bills)	\$ 3,000.00
Virginia Highway Safety Division (Manual of up-dated St. Traffic Laws)	10,000.00
Total Federal Funding - 306	\$ 13,000.00

Standard 307 - Traffic Courts

Franklin Co.	500.00
Roanoke Co.	57.50
Galax City	8,000.00
Virginia Highway Safety Division (Attorney General's Office)	5,100.00
Virginia Highway Safety Division (Traffic Court Conference)	9,625.00
Buchanan Co.	4,000.00
Patrick Co.	4,000.00
Total Federal Funding to Localities - 307	\$ 16,557.50
Total Federal Funding - 307	\$ 31,282.50

Standard 308 - Alcohol in Relation to Highway Safety

Virginia Highway Safety Division	200.00
Virginia Highway Safety Division	40,800.00
Total Federal Funding - 308	\$ 41,000.00

Standard 309 - Identification and Surveillance of Accident Locations

Newport News	8,030.00
Alexandria	13,688.00
Total Federal Funding to Localities - 309	\$ 21,718.00
Total Federal Funding - 309	\$ 21,718.00

Standard 310 - Traffic Records

Virginia Highway Safety Division	50.000.00
Total Federal Funding - 310	\$ 50.000.00

## EXHIBIT 34 (continued)

1212

Standard 311 - Emergency Medical Services

Buckingham Co.	\$ 6,750.00
Chesterfield Co.	7,850.00
Gloucester Co.	6,050.00
Highland Co.	5,980.00
Lancaster Co.	4,250.00
Nottoway Co.	12,400.00
Roanoke Co. (Bent Mountain)	1,500.00
Roanoke Co. (Mt. Pleasant)	2,400.00
Roanoke Co. (#5 Fire Department)	6,650.00
Westmoreland Co.	6,750.00
Rappahannock Co.	1,250.00
Pittsylvania Co.	6,500.00
New Kent Co.	6,750.00
Montgomery Co. (Blacksburg)	6,433.13
Virginia Department of Health	25,825.00
Augusta Co.	2,202.86
Roanoke Co. (Ft. Lewis)	2,700.00
Bedford Co.	813.00
Petersburg City	13,500.00
Amherst Co.	9,250.00
Middlesex Co.	7,250.00
Prince Edward County	5,050.00
Roanoke City	900.00
Rockingham Co.	17,544.25
Roanoke (Vinton)	5,750.00
Botetourt (Troutville)	7,300.00
Dickenson Co.	10,610.00
Virginia Highway Safety Division	12,000.00
Virginia Highway Safety Division	25,345.00

Total Federal Funding to Localities - 311	\$164,383.24
---	--------------

Total Federal Funding - 311	\$227,553.24
-----------------------------	--------------

Standard 312 - Highway Design, Construction and Maintenance

Farmville City	\$ 1,500.00
Alexandria City	2,875.00
City of Richmond	2,750.00
City of Richmond	7,500.00
City of Richmond	10,200.00

Total Federal Funding to Localities - 312	\$ 24,825.00
---	--------------

Total Federal Funding - 312	\$ 24,825.00
-----------------------------	--------------



## EXHIBIT 34 (continued)

	1213
<u>Standard 313 - Traffic Control Devices</u>	
Richmond City	\$ 750.00
Richmond City	850.00
Department of Highways	3,160.00
Department of Highways	18,500.00
Virginia Highway Safety Division	787.50
Virginia Highway Safety Division	2,600.00
Total Federal Funding to Localities - 313	\$ 1,600.00
Total Federal Funding - 313	\$ 26,647.50

<u>Standard 314 - Pedestrian Safety</u>	
Chesterfield Co.	\$ 17,750.00
Fairfax County	17,750.00
Chesterfield Co.	22,609.50
Virginia Highway Safety Division	27,200.00
Total Federal Funding to Localities - 314	\$ 58,109.50
Total Federal Funding	\$ 85,309.50

<u>Standard 315 - Police Traffic Services</u>	
Vienna, Town of	\$ 650.00
V.C.U.	15,224.00
Staunton City	687.50
Rockingham Co. (Broadway)	718.47
Rockingham Co. (Grottoes)	307.45
Rockingham Co. (Timberville)	2,837.55
Rockingham Co. (Elkton)	1,922.62
Roanoke Co.	3,541.50
Petersburg City	25,427.94
Nansemond Co.	3,000.00
Montgomery Co.	1,620.00
Henrico Co.	14,665.00
Fairfax Co.	20,315.00
Arlington Co.	10,630.00
Portsmouth City	25,000.00
Newport News City	36,000.00
Campbell Co.	46,082.00
Prince Edward City	24,500.00
Norfolk City	5,700.00
V.C.U.	7,500.00

EXHIBIT 34 (continued)

Standard 315 - Police Traffic Services (Continued)	Amount
State Police (Helicopter)	90,392.81
State Police	33,593.00
Portsmouth City	10,000.00
 Total Federal Funding to Localities - 315	 \$233,605.03
 Total Federal Funding - 315	 \$380,314.84
 Total Federal Funding to Localities 1972	 \$820,706.40
 Total Federal Funding 1972	 \$1,596,625.67

## STATE PRIORITIES EXHIBIT 35

Element	Subelement	Locality	Priority in Element	Project Number	10%			20%			30%			40%			Element
					Amount Requested	Date Funded	Amount Funded	Amount Requested	Date Funded	Amount Funded	Amount Requested	Date Funded	Amount Funded	Amount Requested	Date Funded	Amount Funded	
300					180			180			180			180			300
301																	301
302																	302
303					5			5			10			12			303
304					45			120			209,002			310			304
305					16,755			59,190			107.5			177			305
306					5			5			19			35			306
307					5			5			10			15			307
308					40			120,145			200			207,547			308
309					24,219			58,973			75			146			309
310					5,413			20			40			90			310
311					40			120			200			225			311
312					15			20,145			33,735			47,922			312
313					17,333			33,999			35,941			42,314			313
314					15			30			45			60			314
315					30			110			175.0			219,121			315
316					0			0			0			8			316
TOTAL					443,720			887,452			1,331,178			1,774,904			

1215

## STATE PRIORITIES EXHIBIT 35 (continued)

Element	50%			60%			70%			80%			90%			100%			Element
	Amount Requested	Date Funded	Amount Funded	Amount Requested	Date Funded	Amount Funded	Amount Requested	Date Funded	Amount Funded	Amount Requested	Date Funded	Amount Funded	Amount Requested	Date Funded	Amount Funded	Amount Requested	Date Funded	Amount Funded	
300	180			180			180			180			180			180			300
301																			301
302																			302
303	30			30			36			36			36			36			303
304	360			450			500			618.438			790.605			1003.581			304
305	180			180			180			183.5			183.5			183.5			305
306	35			40			46			46			46			46.0			306
307	30			30			33			33			33			33.0			307
308	330.837			353.003			355.4			355.4			355.4			355.4			308
309	183.037			219.645			256.252			292.859			329.467			364.0			309
310	95			800			500			550			600			640			310
311	250			275			319.771			590			625			759.4			311
312	59.854			77.824			94.842			111.819			125.796			128.0			312
313	59.903			71.855			83.864			95.845			107.825			115.0			313
314	65			70			70.954			71.948			80.942			81.85			314
315	350			365			400			425			450			456.6			315
316	10			20			50			50			50			55.0			316
	2,218.631			2,662.327			3,106.083			3,549.809			3,993.535			4,437.331			

## EXHIBIT 36

## PROGRAM AREA AND TASK EXPENDITURES BY LEVELS A &amp; B OF FEDERAL FUNDING

STANDARD AREA	DESCRIPTION OF TASK	LEVEL A	LEVEL B
300	Total Program	*180.0	180.0
303	Public Information Program	10.867	12.0
304	H.S. Driver Ed.		
	Education T V	4.0	4.0
	H.S. Driver Ed. State Personnel	25.0	25.0
	H.S. Driver Ed. Supplies (State)	.5	.5
	H.S. Driver Ed. Teaching Aids (Local)	8.0	8.0
	H.S. Driver Ed. Equipment-Simulators, Ranges, etc.	193.5	197.5
304	Adult Driver Ed. Staff	25	25
304	Driver Improvement Staff	15	15
304	Highway Safety Education Staff, etc.	30	35
305	Driver Testing Range	177	177
306	Publish Model Traffic Ordinances	15	15
	Publish New Codes and Laws	4	20
307	Traffic Court Seminars	6	7
	Renovation of Court Rooms	8	8
308	Equipment (Breath Testing Devices)	130	150
	Training on Breath Testing Devices	40	40
	Alcohol Safety Programs in Metropolitan Areas	30	41.596

1217

\* All costs shown in \$(000)

## EXHIBIT 36 (continued)

STANDARD AREA	DESCRIPTION OF TASK	LEVEL A	LEVEL B
309	Multidisciplinary Accident Investigation Teams Field Reference System	65 69.927	65 81.0
310	Feasibility Study and Personnel Training of Policemen on New Accident Report Motorist Data Base	24 10 17.382	32 10 56
311	State Personnel Equipment	38 162	38 187
312	Lighting Survey Flagman's Manual Railroad Grade Crossing Studies Bridge Inspection Program Paint Marking Machines	5 5 3 7 3	5 5 3 7 6
313	Traffic Engineering Short Courses, etc. Development of Programs Traffic Engineering Training Public Information Program Safety Shows Hot Dots Safety Towns Pedestrian Crossing Manuals	20.999 15 9 10 5 10 23 7	22.314 20 13.932 15 5 10 23 7
315	Training - Policemen Helicopter Communications (Local) Equipment	8 100 79 3	15 100 95 9.121
316	Training	5	8
TOTAL		\$1606.175	\$1798.953

1218

PART IV  
SUBELEMENT PLANS

1210









established as a research center for the HSD and was given the responsibility of conducting studies and compiling research information for various highway safety programs.

Several programs the HSD of Virginia will sponsor include the following:

- (1) The purchase of alcohol breath measuring devices and training;
- (2) Multidisciplinary crash investigation teams;
- (3) Driver education;
- (4) Pedestrian safety;
- (5) Crash facts for each city and county in the state;
- (6) Adult driver education;
- (7) Educational TV;
- (8) Traffic records seminar;
- (9) Traffic engineering seminars;
- (10) Seminars for Traffic Court Judges;

and many other programs that should help reduce the number of fatalities on our highways during the next few years.

In carrying out its responsibility for highway safety, the HSD has hired six full-time area coordinators whose job is to help the local highway safety commissions in the development of local highway safety programs as well as carrying out the safety programs of the division. A full-time public information officer was hired to disseminate public information, utilizing media pertinent to highway safety standards.

One of the main functions of the HSD is to encourage implementation of the 16 Highway Safety Standards, which includes the allocation of federal funds.

Upon completion of our new traffic records system we will be able to more effectively evaluate the programs now being conducted by the HSD of Virginia.

HIGHWAY SAFETY PROGRAM SUBELEMENT SUPPLEMENT		1. State of Virginia		2. TITLE Administration						3. No.46-73-00-04		PA-73-100		DATE 4-1-72	
		TOTAL		1	2	3	4	5	6	7	8	9	10		
		TASKS													
13.	D Standard: 300														
	I Total \$(000)			327.886	252.435	37.16	31.1	40.875							
	S Federal			100	25.43	18.58	15.55	20.44							
	T To Localities														
	R Prev. Obligations														
	New Obligations			100	25.43	18.58	15.55	20.44							
	I Standard:														
	B Total														
	U Federal														
	T To Localities														
	I Prev. Obligations														
	O New Obligations														
	N Standard:														
	Total														
	Federal														
	To Localities														
	Prev. Obligations														
	New Obligations														
	S Standard:														
	Total														
	Federal														
	To Localities														
	Prev. Obligations														
	New Obligations														
	A Total														
	R Federal														
	To Localities														
	Prev. Obligations														
14.	Local Costs by Object														
	Salaries														
	Per Diem and Travel														
	Contracts														
	Equipment														
	Supplies														
	Maintenance and Operations														
	Total														

EFFECTIVENESS SUPPLEMENT  
TO THE SUBELEMENT

Title and No. <u>PA-73-100</u> <u>46-73-00-05</u> Planning and Administration	Date	19 71	19 72	Fiscal Year 1973					19 74	19 75	
	4-1-72	FY-2	FY-1	1st Qt.	2nd Qt.	3rd Qt.	4th Qt.	Total	FY+1	FY+2	
6a. EFFECTIVENESS											
Death Rate Per 100 Million Miles of Travel (Projection)											
1.		4.27	4.10					3.91	3.74	3.56	
2.											
3.											
4.	Death Rate Over Past 5 Years	1966	1967					1968	1969	1970	
		5.1	4.8					4.8	4.8	4.3	
5.											
6.											

1234

## PLANNING AND ADMINISTRATION

In order to comply with the requirement of Public Law 89-564, 89th Congress, § 3052, September 9, 1966 that "... each state shall have a highway safety program approved by the Secretary of Transportation to reduce traffic accidents and deaths, injuries and property damage therefrom and that such programs shall be in accordance with uniform standards promulgated by the Secretary or risk the loss of 10% of the federal aid highway funds apportioned on or after January 1, 1969 ...", Virginia established the Highway Safety Division of Virginia. The Highway Safety Division has the responsibility of carrying out the state's Highway Safety Program by encouraging, stimulating and developing highway safety programs and activities throughout the state. The Division, with approval from the Governor's office, has established 135 local Highway Safety Commissions within the cities and counties of the state. These safety commissions have been established in every locality in the state, and safety projects have been initiated in almost every locality with federal participation of over \$4 million during the years 1969-72 inclusive. The majority of federal reimbursements have been for projects matched by either local or state funds.

The state highway safety program for fiscal years 1973 and 1974 must accomplish the necessary tasks in order to accomplish the goal of reducing the number of accidents, fatalities, personal injuries, and property damage on Virginia highways. These necessary tasks are discussed in the following subsections.

Personal Services

Twenty-two positions are now established in the Division and six additional positions are being requested for 1973 or 1974, or whenever state matching funds become available.

Accountant B — The number of highway safety projects granted to state agencies and political subdivisions has steadily increased each year since the Highway Safety Division was formed and all indications are that it will continue to increase at a rate of about 40% each year. Highway safety projects generally have a life span of from six months to three years and require constant surveillance in order that all correspondence relating to them can be kept current and accurate. Each project application is reviewed as initially received from political subdivisions and state agencies as to its validity, accuracy and overall value to the state's highway safety program. Recent adjustments in the procedures for administering federal highway safety monies have placed upon the Division total responsibility for individual programs. The responsibility for reviews and checks, which previously lay with the National Highway Traffic Safety Administration, has been transferred to the Division's Fiscal Section and this added responsibility has increased the Section's workload.

Because of the increased number of project submissions and the assumption of the responsibility for reviews and checks, the Fiscal Section needs an additional person to assist in the handling of administrative details and the auditing of accounts. The responsibility for auditing each federal account has been placed on the Division and presently two auditors (Accountants B) perform this function. The requested new position would significantly aid the Fiscal Section in the performance of its duties and functions.

Exhibit Coordinator — The recent acquisition of an exhibit trailer for use in public information programs has necessitated the establishment of an exhibit coordinator position. The duties of this position will include the handling, scheduling, transport, and maintenance of the 25-foot exhibit trailer as well as office duties that will guarantee the total usage of one employee's time.

One of the major functions of the Division is the distribution of highway safety information. The full-time use of the mobile exhibit would greatly enhance the Division's capabilities for performing this function. If the exhibit coordinator position is established, this equipment could be made available for local highway safety commission displays, county and state fairs, and other associated functions; if the position is not created, many requests for use of the equipment will have to be turned down as the schedules of present personnel will not allow its maximum usage.

Clerk-Stenographer C -- The Public Information Section of the Division consists of a Public Information Director B and a Public Information Officer B. No permanent support personnel are available. The dictation, typing, and scheduling of appointments and highway safety talks are being done by part-time help. The workload has grown to the point where it is no longer economical to depend upon part-time help to perform these duties. The requested position would provide, for the present, an adequate Public Information staff while not substantially increasing costs, since the duties described above are required and are presently being performed by commercial agency personnel under contract to the Division on a quasi full-time basis.

Clerk-Typist C -- One of the prime responsibilities of the Division is the dissemination of public information relating to highway safety. The Division presently has a mailing list in excess of 3,000 individuals, firms, and organizations. This mailing list has recently been revised to make room for future expansion. It includes names of persons from all walks of life, representing many different organizations and functions. These names have been broken down into various categories to ensure that each person or organization receives the desired material or combinations of material.

In order to keep the list working satisfactorily and with a minimum of inconvenience and confusion, it will become necessary to assign one individual to assume the responsibility of keeping this list up-to-date.



Also, the person filling this position will type from rough draft reports and correspondence of the Public Information Office and compose routine correspondence independently. Due to an increased schedule of meetings and conferences, it is necessary that additional correspondence be prepared and distributed. These tasks will involve a combination of cutting stencils, straight typing, operating copy machines, and collating larger publications.

Highway Safety Coordinators (2) -- The Division employs six highway safety program coordinators who are stationed throughout the state in order to serve their assigned districts. Various developments in state and federal programs have made it imperative that the Division employ two more personnel in this status in order that the local highway safety commissions, city, town and county officials, planning districts, and public service organizations may be served properly. The present boundaries of the areas covered by the six field men are far too extensive and do not adapt themselves to the boundaries of established Planning Districts. The implementation of the National Highway Traffic Safety Administration's Annual Highway Safety Work Program concept requires more thorough surveillance of ongoing highway safety projects in the localities and additional time of the coordinators in assembling and explaining information. The large territories now served by the coordinators require numerous hours of travel time. Through the employment of additional coordinators, the state can be divided in line with Planning District boundaries and the mileages can be reduced considerably so that the coordinators can perform more effectively.

#### Contractual Services

##### General Repairs

Funds requested under this item will provide for the repair of typewriters, adding machines, movie projectors, office furniture, Porto clinics, Porto glares, tape recorders, movie cameras, still cameras, and film inspection machines.

Maintenance Service Contracts

The funds under this item will cover maintenance contracts on 3M equipment and the charges for answering services for the coordinators for one year.

Motor Vehicle Repairs

Funds will be used for the repair and maintenance of Division owned vehicles. Costs for the first one-half biennium will be borne by the Federal Highway Safety Project.

Travel

Experience has shown that the Division's cars are driven an average of over 24,000 miles per year; on this basis 3 additional vehicles will be needed in 1973 (2 for coordinators and one for the Public Information Office). To meet the travel requirements, the Division will need a total of 10 cars and 4 station wagons.

Funds will also be used to cover the expenses incurred in connection with the Annual Advisory Committee Meeting; the Youth Conference, Traffic Safety Seminars, and Commission members' activities.

Food and lodging expenses for 15 travelling employees, including Main Office personnel, must also be provided.

Convention and Educational Travel

Funds will be needed to cover the expenses of representatives of the Safety Division attending the National Safety Congress, the Southern Safety Conference, public relations training courses, and nationwide workshops on highway safety.

Transportation

Funds must be provided for freight and express charges on items purchased by the Division or shipped back for repairs.

Communication

Requested funds will cover installation and monthly charges for telephone service for Main Office and 8 field offices, and mail and related communication services needed for an expanded public information program.

Printing, other than office supplies

Funds requested will cover costs incurred in printing material for highway safety programs, including brochures, posters, crash facts, annual reports, pamphlets, and highway safety handout literature.

Other Contractual Services

The Highway Research Council at the University of Virginia has established a Safety Section that is providing support for the Highway Safety Division in lieu of the Research Center recommended by the Mann Commission. \$95,000 is requested for its operation for 1973 and \$110,000 for 1974.

Funds will be used for newspaper clipping service, art work and highway safety bulletins. The service and art work will require \$1,500 each year of the biennium.

For the preparation and distribution of material prepared for radio, television and newspapers, \$65,000 will be needed for 1973 and \$70,000 for 1974.

Federal funds will be used for the relocation of Central Office and Field Personnel if necessary.

Supplies and MaterialsOffice Supplies

Funds requested will be used for the purchase of supplies, paper, pencils, forms, envelopes, mailing labels, ledgers, file folders, report covers, and other miscellaneous office supplies.

Medical and Laboratory Supplies

Funds will be requested for first aid kits and blankets for the automobiles of additional personnel.

Motor Vehicle Supplies

Funds must be provided for the purchase of gas and oil for Division owned cars, the exhibit trailer, and the tow vehicle, and for the maintenance of these vehicles.

Photographic Supplies

Funds are requested to continually update the film library by purchasing new films and repairing older films. Funds will also be used for movie boxes, slides, flashbulbs, batteries, and camera film.

Other Supplies and Materials

Funds are required for the purchase of additional highway safety exhibits, manuals, charts, and miscellaneous supplies.

Office Equipment

Funds requested will be used for the normal replacement of office equipment each year.

Photographic Equipment

Funds will be needed for the replacement of projection equipment as the need arises.

Equipment, AdditionalOffice Equipment

Funds requested will be used to purchase desks, chairs, typewriters, and other office equipment for additional personnel; plus the equipment necessary for the relocation of the Division Headquarters.

Books and Periodicals

Funds will be used to purchase publications relevant to highway safety to be used as reference material within the Division and by the Highway Safety Commission.

Electronic Equipment

Funds will be used to purchase the equipment necessitated by the relocation of Division coordinators and their field offices, including electronic answering service devices.

Other Equipment

Funds will be used to equip new coordinators.

Current Charges and ObligationsRent (Land and Structures)

Funds will provide for main office relocation of field personnel.

Space necessary: main office — 3,370 square feet; storage main office and field — 2,400 square feet; office space for fieldmen — 1,600 square feet.

Rent (Business, Education and Medical Equipment)

Rent a copy machine plus allowance for 2,000 copies per month.

Dues and Subscriptions

Funds requested will be used for membership dues to safety organizations for Division personnel and subscriptions to publications.

Pensions — Retirement — Insurance

Federal Old Age — Insurance

Payments into contribution fund.

Employer Retirement Contribution

Payments into the trust fund.

Group Insurance

Payments on behalf of state employees.

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN			1. State of Virginia		2. TITLE		Periodic Motor Vehicle Inspection				3. NO. VI-73-261 46-73-01-01		4. DATE 4/1/72					
			5. DRAFTED BY Captain R. M. Terry APPROVED BY J. T. Hanna		1971 FY-2		1972 FY-1		FISCAL YEAR 1973				1974 FY+1		1975 FY+2			
									1st Q		2nd Q		3rd Q		4th Q		TOTAL	
6a. EFFECTIVENESS Discovered and required the correction of defects on 25.15% vehicles inspected (000)					1,182		1,246		325		325		325		325		1,300	
100% of all registered vehicles inspected prior to operation C on roadway					100		100		100		100		100		100		100	
6b. OUTPUT					4,700		4,935		1,292		1,292		1,292		1,292		5,168	
7. RESP. State Police			8. STD. 301		9. TASKS & MILESTONES 1. Operate an effective and efficient vehicle inspection program to detect and correct vehicle defects. A. Personnel 1. The program is administered by full-time employees. Administration -- Captain Lieutenant Stenographer Clerk Typist Clerk D Clerk C Clerk B 2. The stations are supervised by the more than 1,000 state policemen who spend as much time		1 1 2 2 1 1 6		1 1 2 2 1 1 6		1 1 2 2 1 1 6		1 1 2 2 1 1 6		1 1 2 2 1 1 6		1 1 2 2 1 1 9	
10. DESCRIPTION The ultimate goal of the State Police motor vehicle inspection program is to reduce the number of deaths and injuries and the amount of property damage caused by motor vehicles with inspectable defects. In accomplishing this goal the State Police will inspect every motor vehicle before entry on the highway and every six months there- after. We plan to correct vehicle defects prior to operation on the public highways and thereby reduce accidents. Section 46.1-315 of the Code of Virginia gives the Superintendent of State Police authority to compel inspections and Section 46.1-319 gives					11. COST BY TASK \$(000) A. Personnel 1. Administrative personnel 2. Field supervisory personnel B. Supplies and equipment 12. TOTAL COST \$(000) LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES		75 162 110 347		80 170 121 371		22 45 36 103		22 45 36 103		22 45 36 103		88 180 144 412	
																	97 198 174 469 469	





HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE	Periodic Motor Vehicle Inspection			3. NO. <u>VI-73-261</u> <u>46-73-01-03</u>	4. DATE <u>4/1/72</u>
5. DRAFTED BY Captain R. M. Terry APPROVED BY J. T. Hanna		1971 FY-2		1972 FY-1	FISCAL YEAR 1973		1974 FY+1	1975 FY+2
					1st Q	2nd Q	3rd Q	4th Q
					TOTAL			
6a. EFFECTIVENESS								
6b. OUTPUT								
	C							
	V							
7. RESP.	8. STD.	9. TASKS & MILESTONES						
State Police	301	<p>C. Vehicle inspection standards</p> <p>Our regulations currently require most items set forth by the National Highway Traffic Safety Administration and recommended by the American National Standards Institute D7. 1-1968 Code. We are presently studying and considering adopting additional items.</p> <p>(See attachments 1 &amp; 2)</p>						
10. DESCRIPTION	<p>continued.</p> <p>program and utilize more than 36,862 man-hours annually. Each trooper receives both classroom and field training as to the correct methods of supervision. The classroom training has recently been extended three hours. Additional training for the supervisors is conducted annually as it is needed.</p> <p>3. Legislation is pending which would prohibit the altering of the suspension system. If passed, we anticipate more stringent inspection manual requirements.</p>							
11. COST BY TASK \$(000)								
12. TOTAL COST \$(000)								
LOCAL SHARE								
STATE SHARE								
FEDERAL SHARE								
TO LOCALITIES								

Periodic Motor Vehicle Inspection  $\frac{\text{VI-73-261}}{46-73-01-04}$

DESCRIPTION: (Cont. )

4. Legislation is pending which would prohibit the modified hood, which is raised to the point that it obstructs vision.
5. We are presently considering a regulation which would require the inspection of hood latches.

VI-73-261  
46-73-01-05

ATTACHMENT 1

C. VIRGINIA'S PROGRAM

The program almost completely complies with the minimum recommendations of the National Highway Safety Bureau.

1. Virginia registered vehicles must be inspected semi-annually prior to operation on the highway.
2. The inspections are performed by competent personnel specifically trained by the State Police. (This training of mechanics is expected to become extensive as we increase the administrative staff.)
3. The inspection covers systems and components having substantial relation to safe vehicle performance.
4. The procedures for the actual inspection equal or exceed 18 of the 26 recommendations of the NHSB. (Refer to chart)
5. Each station keeps the records as recommended except the vehicle identification number.
6. The state publishes summaries of vehicle defects based on a sample tabulation.

## ATTACHMENT 2

## D. VEHICLE INSPECTION STANDARDS

The information listed below provides a comparison of those items required to be inspected in Virginia with those recommended by the National Highway Safety Bureau and the ANSI D7.1-1968 Code. It further shows items that are being considered for Virginia's Program.

VIRGINIA	N H S B	A N S I
	Operator's License	
	Valid Registration	Valid Registration
License Plates	License Plates	License Plates
Brakes	Brakes	Brakes
Headlights	Headlights	Headlights
Signal Lights	Signal Lights	Signal Lights
Other Lights	Other Lights	Other Lights
Horn	Horn	Horn
Electrical Systems	Electrical Systems	Electrical Systems
Windshield	Windshield	Windshield
Other Windows	Other Windows	Other Windows
Rear View Mirrors	Rear View Mirrors	Rear View Mirrors
Tires	Tires	Tires
Wheels and Rims	Wheels and Rims	Wheels and Rims
Wipers	Wipers	Wipers
***	Windshield Washers	Windshield Washers
Steering Assembly	Steering Assembly	Steering Assembly
Alignment & Suspension	Alignment & Suspension	Alignment & Suspension
Exhaust System	Exhaust System	Exhaust System
***	Fuel System	Fuel System
***	Hazardous Body Items	Hazardous Body Items
***	Latches, Hood, Door, etc.	Latches, Hood, Doors, etc.
Seat Belts	Occupant Restraining Devices	Seat Belts
***	Defrosters & Foggers	Defrosters & Defoggers
	Vehicle Emission System	
**	Auxiliary Safety Equipment	**

\* Virginia does not use enforcement personnel for inspection; therefore, this item does not apply.

\*\* D7 states that items must comply with State Statutes and if a device is permissive it shall comply with the requirements for such a device as if it were covered by Statute.

\*\*\* These items are being considered for Virginia's program.

HIGHWAY SAFETY PROGRAM SUBELEMENT SUPPLEMENT		1. State of Virginia		Periodic Motor 2. TITLE Vehicle Inspection										3. No. 46-73-01-07 4. DATE 4-1-72		VI-73-261	
		TOTAL		1	2	3	4	5	6	7	8	9	10				
13.	D Standard: 301	412	88	324													
	I Total \$(000)	0	0	0													
	S Federal	0	0	0													
	T To Localities	0	0	0													
	R Prev. Obligations	0	0	0													
	New Obligations																
	I Standard:																
	B Total																
	U Federal																
	T To Localities																
	I Prev. Obligations																
	O New Obligations																
	N Standard:																
	Total																
	Federal																
	To Localities																
	Prev. Obligations																
	New Obligations																
	S Standard:																
	Total																
	Federal																
	To Localities																
	Prev. Obligations																
	New Obligations																
	A Total																
	R Federal																
	D To Localities																
	Prev. Obligations																
14.	Local Costs by Object																
	Salaries																
	Per Diem and Travel																
	Contracts																
	Equipment																
	Supplies																
	Maintenance and Operations																
	Total																

## PERIODIC MOTOR VEHICLE INSPECTION

As of January 1, 1970, 31 states and the District of Columbia had passed legislation requiring periodic motor vehicle inspection. Of the 19 states not requiring periodic inspection, 8 had systems of random or spot-check inspections. Virginia began to inspect automobiles for safety defects relatively early, having inaugurated its system in 1932.

There are essentially two types of periodic inspection programs. One type uses state owned and operated stations. The use of state facilities for inspection purposes is restricted to a small number of states, and appears to work best in states with small land areas, such as Delaware and New Jersey. The other type of program, used by a majority of states including Virginia, utilizes privately owned facilities appointed and supervised by the state. In Virginia, appointment and supervision is under the authority of the Department of State Police. Currently, there are some 2,500 inspection stations operating in the state, consisting of automobile dealerships, independent repair shops and service stations, and, in some cases, commercial fleet owners who have as many as 25 vehicles. In 1970, these stations conducted 4,627,541 inspections.

By proclamation of the Governor, semiannual inspection is required of all licensed motor vehicles, trailers and semitrailers, including house trailers, small utility trailers, and motorcycles. Failure to submit one's vehicle to a required inspection or to have mechanical defects found by the inspection corrected is a misdemeanor. For this inspection, a station may charge a fee of two dollars, but the charge is not mandatory. Any repairs and adjustments that are necessary by the inspection cost extra, and the state has no control over the charges as long as the work is necessary and is properly performed. Motorists need not have repair work performed at the inspection station, and, in fact, are encouraged by the Department of State Police to seek outside estimates.

Nevertheless, many motorists apparently do have repairs made at the inspection station rather than seeking additional estimates. It is this revenue-generating aspect of the inspection program that makes the possession of a certificate of appointment a valuable commodity. The possibility of abuse by unscrupulous garage owners, plus the interest in maintaining public support for the program, has led the Department of State Police to adopt high standards as a prerequisite to designation as an official inspection station. In addition to the minimum standards required of inspection stations under Va. Code Ann. §46.1-320, and the more particularized requirements detailed in the Virginia Official Inspection Manual, there must also be a need for the station in the area, it must have the required equipment, and the reputation of both the station and the manager, or the owner, must be above reproach. Thorough investigations are conducted on all managers, owners, mechanics, and persons handling inspection stickers.

Additionally, there are procedures to maintain the flow of information and supervise the quality of the inspection. In addition to the 20 hours of Basic Training School devoted to this one activity that each trooper undergoes, all troopers who supervise mechanics participate in a one week school every year. The information conveyed therein is passed along to the mechanics who perform the inspections. Additionally, every September, 49 inspection meetings are held around the state. Attendance at one of the meetings by certified mechanics is mandatory; otherwise, the mechanic is automatically suspended. Topics at these meetings include problems arising in the administration of the program, changes in the applicable laws, and recommendations from troopers, mechanics, and the public.

Check procedures are an integral part of maintaining the viability of the program. Among the checks utilized are the following:

- (1) Each station is spot-checked at least monthly to determine compliance with inspection standards.

- (2) Weekly traffic checks are made to spot safety defects. If a number of defects can be traced to the same station through use of the inspection receipts, further investigative action and possible suspension results.
- (3) Complaints from private citizens and troopers are fully investigated. In 1970, 39 written complaints were received and 90 were phoned in from private citizens. An additional 576 complaints were received from the troopers themselves, bringing the total number of complaints to 705. Of these, corrective action was taken in 603 instances, with 82 mechanics being suspended and 38 stations losing their certification. Considering that some 8,000 mechanics and 2,389 stations participated in the 1970 program, this speaks well for the high level of public confidence and acceptance accorded the system.

Additional progress in improving motor vehicle inspections is anticipated due to the following changes instituted in 1971:

- (1) The inspection receipts were changed to allow a space for the identification number and the stations were instructed to include this number as of January 1, 1972.
- (2) A sample of the inspection receipts is being tabulated to show the defects by make and model so that our data processing equipment can be utilized to gather essential information.
- (3) The regulations were revised so as to prohibit small modified steering wheels.
- (4) The regulations were revised to include a more practical and uniform aiming tolerance for headlamps. These tolerances and numerous other items were discussed during the 49 training sessions held during September throughout the state.



HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE	Motor Vehicle Registration			3. NO. <u>VR-73-261</u> <u>46-73-02-01</u>	4. DATE 4-1-72	
5. DRAFTED BY A. D. Harvey APPROVED BY J. T. Hanna				1971 FY-2	1972 FY-1	FISCAL YEAR 1973 1st Q 2nd Q 3rd Q 4th Q	TOTAL	1974 FY-1	1975 FY+2
6a. EFFECTIVENESS	SEE EFFECTIVENESS SUPPLEMENT TO THE SUBELEMENT								
6b. OUTPUT	C	Percent of motor vehicles titled							
	V	Number of motor vehicles titled							
7. RESP.	8. STD.	9. TASKS & MILESTONES							
DMV	302	1. Number of vehicles and trailers titled (000)							
		A. Personnel - State Level							
		1 Supervisors							
		2 Clerks							
10. DESCRIPTION		The long-term goal of our motor vehicle registration program is to reduce the number of deaths, injuries, and the amount of property damage caused by traffic law violators who should have had their driving privileges revoked because of previous convictions of violations. Our immediate goal is to make available such records that will enable the police to apprehend traffic violators in a minimum amount of time. The Division of Motor Vehicles is responsible for this endeavor and performs the following in pursuing the above goal:							
11. COST BY TASK \$(000)		1. Vehicle Titling							
12. TOTAL COST \$(000)		LOCAL SHARE							
		STATE SHARE							
		FEDERAL SHARE							
		TO LOCALITIES							



HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia		2. TITLE		3. NO. <u>VR-73-261</u> <u>46-73-02-03</u>				4. DATE <u>4-1-72</u>	
5. DRAFTED BY A. D. Harvey APPROVED BY J. T. Hanna		Motor Vehicle Registration		FISCAL YEAR 1973				TOTAL		DATE	
				1971 FY-2		1972 FY-1		1st Q 2nd Q 3rd Q 4th Q		1974 FY+1	
										1975 FY+2	
6a. EFFECTIVENESS											
6b. OUTPUT		C V		%		of tax collected available for highway funds					
		Amount tax collected									
7. RESP. 8. STD. 302		9. TASKS & MILESTONES		3. Amount of fuel tax collected (\$000,000)		175		183		204	
		A. Personnel - state level		2		2		48.5		215	
		1. Supervisors		2		2		48.5		2	
		2. Clerks		13		13		48.5		13	
		3. Auditors		17		17		48.5		17	
		4. Regional Representative		13		13		48.5		13	
10. DESCRIPTION 3. Proper collection of all motor fuel to tax to insure funds for highway construction and maintenance utilizing proven techniques of safety engineering and design.		11. COST BY TASK		3. Fuel tax collection		650		686		751	
		12. TOTAL COST		LOCAL SHARE							
		STATE SHARE									
		FEDERAL SHARE									
		TO LOCALITIES									

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE Motor Vehicle Registration				3. NO. <u>VR-73-261</u> <u>46-73-02-04</u>	4. DATE 4-1-72		
5. DRAFTED BY A. D. Harvey APPROVED BY J. T. Hanna		1971 FY-2	1972 FY-1	1st Q	2nd Q	3rd Q	4th Q	TOTAL	1974 FY+1	1975 FY+2
6a. EFFECTIVENESS										
6b. OUTPUT	C V	% Dealers licensed								
		Number of dealers licensed								
7. RESP.	8. STD.	9. TASKS & MILESTONES								
DMV	302	4. Number dealers licenses issued								
		A. Personnel state level								
		1. Supervisors								
		2. Clerks								
		3500	3650	1710	190	190	1710	3800	3950	4100
		1	1	1	1	1	1	1	1	1
		2	2	2	2	2	2	2	2	2
10. DESCRIPTION	11. COST BY TASK									
4. Proper licensing of all motor vehicle dealers for promoting the interest and protection of the general public.	4. Dealer licensing									
	12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES									
		44	47	12	12	12	13	49	51	54

HIGHWAY SAFETY PROGRAM ANNUAL SUBRELEMENT PLAN		1. State of Virginia	2. TITLE	3. NO. VR-73-261 46-73-02-05				4. DATE 4-1-72	
5. DRAFTED BY A. D. Harvey APPROVED BY J. T. Hanna		Motor Vehicle Registration		FISCAL YEAR 1973				1974 FY+1	1975 FY+2
		1971 FY-2	1972 FY-1	1st Q	2nd Q	3rd Q	4th Q	TOTAL	
6a. EFFECTIVENESS									
6b. OUTPUT									
7. RESP.	8. STD.	9. TASKS & MILESTONES							
DMV	302	5. Number mileage permits issued							
		A. Personnel — state level							
		1. Supervisors							
		2. Clerks							
		1969	2402	732	732	733	733	2930	3575
		1	1	1	1	1	1	1	1
		2	2	2	2	2	2	2	2
10. DESCRIPTION	11. COST BY TASK								
5. Proper issuance of permits and collection of fees for vehicles operated over the highways under restricted conditions, which are too large to license.	5. Mileage permits	44	47	12	12	12	13	49	51
	12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES								

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE	3. NO. VR-73-261 46-73-02-06				4. DATE 4-1-72	
5. DRAFTED BY A. D. Harvey APPROVED BY J. T. Hanna		Motor Vehicle Registration		FISCAL YEAR 1973		TOTAL		1974 FY+1	
		1971 FY-2	1972 FY-1	1st Q	2nd Q	3rd Q	4th Q	1975 FY+2	
6a. EFFECTIVENESS									
6b. OUTPUT		C % of vehicle information furnished V Number vehicle information							
7. RESP.	8. STD.	9. TASKS & MILESTONES							
DMV	302	6. Number automated vehicle information requests (000)							
		A. Personnel — state level							
		1. Supervisors							
		2. Clerks							
		3024	3655	1058	1058	1060	1059	4235	4815
		7	7	7	7	7	7	7	7
		47	47	47	47	47	47	47	47
10. DESCRIPTION		11. COST BY TASK							
6. To answer all correspondence and furnish automated file information for the public, courts and law enforcement agencies by direct computer inquiry with a minimum response time.		6. Automated vehicle information requests		778	821	216	216	864	899
		12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES							

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia		2. TITLE		Motor Vehicle Registration				3. NO. <u>VR-73-261</u> <u>46-73-02-07</u>		4. DATE <u>4-1-72</u>									
5. DRAFTED BY A. D. Harvey APPROVED BY J. T. Hanna		1971 FY-2		1972 FY-1		FISCAL YEAR 1973		1st Q		2nd Q		3rd Q		4th Q		TOTAL		1974 FY+1		1975 FY+2	
6a. EFFECTIVENESS "Reduction in % of vehicles licensed as uninsured"																					
6b. OUTPUT		C % vehicles licensed as uninsured																			
		V Number vehicles licensed (000)																			
7. RESP.		8. STD.		9. TASKS & MILESTONES																	
DMV		302		7. Number uninsured motor vehicles licensed (000)		41.5		37.4		3.8		3.9		15.3		15.3		38.3		39.4	
				A. Personnel — state level																	
				1. Supervisors		2		2		2		2		2		2		2		2	
				2. Clerks		8		8		8		8		8		8		8		8	
DMV		302		8. Automated data processing																	
10. DESCRIPTION				11. COST BY TASK																	
7. To insure collection of the uninsured motorist fee on registering vehicles that are not insured and to encourage owners to obtain proper liability insurance for coverage in the event of a crash.				7. Uninsured Motor Vehicles Licensed		143		151		39		40		40		40		159		165	
				8. Automated data processing		2092		2208		581		581		581		582		2325		2413	
8. This subelement concerns electronic data processing of motor vehicle registration transactions.				12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES																	

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE	Motor Vehicle Registration			3. NO. <u>VR-73-261</u> <u>46-73-02-08</u>	4. DATE <u>4-1-72</u>
5. DRAFTED BY APPROVED BY		A. D. Harvey J. T. Hanna		1971 FY-2	1972 FY-1	FISCAL YEAR 1973 1st Q 2nd Q 3rd Q 4th Q TOTAL	1974 FY+1	1975 FY+2
6a. EFFECTIVENESS								
6b. OUTPUT								
		C % of changed addresses on vehicle registration						
		V Vehicles Registered						
7. RESP.	8. STD.	9. TASKS & MILESTONES						
DMV	302	9. Overall program administration and management						
		A. Personnel - state level						
		1. Administrators	1	1	1	1	1	1
		2. Dept. Managers	4	4	4	4	4	4
		3. Asst. Dept. Managers	2	2	2	2	2	2
		4. Secretaries	8	8	8	8	8	8
		5. Word Process Center Manager	1	1	1	1	1	1
		6. Branch Managers	6	6	6	6	6	6
		7. Asst. Branch Managers	2	2	2	2	2	2
DMV	302	10. Current address of owner on vehicle registration	Legis.	Imple.				
10. DESCRIPTION		11. COST BY TASK \$(000)	364	95	96	96	383	418
9. The personnel outlined in this subelement are responsible for the overall administration and management of all programs and projects.		9. Overall program administration and management						
10. Implementation of this subelement is subject to the passage of enabling legislation to require the owner of a motor vehicle to notify the Virginia Division of Motor Vehicles of any change of address. This will permit location of owners whose vehicles have been involved in accidents or traffic violations. A public information program is planned to educate motor vehicle owners of the new requirement.		12. TOTAL COST \$(000) LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES						



HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia		2. TITLE		MOTOR VEHICLE REGISTRATION		3. NO. <u>VR-73-261</u> 46-73-02-09		4. DATE <u>1-72</u>	
5. DRAFTED BY A. D. Harvey APPROVED BY J. T. Hanna		1971 FY-2		1972 FY-1		FISCAL YEAR 1973 1st Q 2nd Q 3rd Q 4th Q TOTAL		1974 FY+1		1975 FY+2	
6a. EFFECTIVENESS											
6b. OUTPUT											
7. RESP. 8. STD. 302		9. TASKS & MILESTONES									
DMV		11. Staggered multi-year registration of motor vehicles with annual revalidation of license.									
10. DESCRIPTION		11. COST BY TASK									
11. Implementation of this subelement is subject to the passage of enabling legislation to change from an annual renewal of vehicle license to a staggered license issue of a five year plate that is revalidated annually. This will allow an individual to have permanent assignment of license plates and the law enforcement agencies the advantage of permanent identification of the registered owner, rapid identification and detection of stolen motor vehicles in crashes and control of vehicle use by problem drivers.		11. Staggered registration of vehicles									
		12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES									

1253

HIGHWAY SAFETY PROGRAM SUBELEMENT SUPPLEMENT		1. State of Virginia		2. TITLE		Motor Vehicle Registration		3. No.		4. DATE	
		VR-73-261		46-73-02-10							
		1		2		3		4		5	
		TOTAL		1		2		3		4	
		TASKS		5		6		7		8	
		9		10							
13.	D Standard: 302	7793	1580	1662	722	49	49	864	159	2325	383
	I Total \$(000)	0	0	0	0	0	0	0	0	0	0
	S Federal	0	0	0	0	0	0	0	0	0	0
	T To Localities	0	0	0	0	0	0	0	0	0	0
	R Prev. Obligations	0	0	0	0	0	0	0	0	0	0
	New Obligations	0	0	0	0	0	0	0	0	0	0
	I Standard:										
	B Total										
	U Federal										
	T To Localities										
	I Prev. Obligations										
	O New Obligations										
	N Standard:										
	B Total										
	Federal										
	T To Localities										
	Y Prev. Obligations										
	New Obligations										
	S Standard:										
	T Total										
	A Federal										
	N To Localities										
	D Prev. Obligations										
	New Obligations										
	A Total										
	R Federal										
	D To Localities										
	Prev. Obligations										
14.	Local Costs by Object										
	Salaries										
	Per Diem and Travel										
	Contracts										
	Equipment										
	Supplies										
	Maintenance and Operations										
	Total										

EFFECTIVENESS SUPPLEMENT  
TO THE SUBELEMENT

Title and No. <u>VR-73-261</u> <u>46-73-02-11</u> <b>Motor Vehicle Registration</b>	Date <b>4-1-72</b>	19 <u>71</u> FY-2	19 <u>72</u> FY-1	Fiscal Year 73					19 <u>74</u> FY+1	19 <u>75</u> FY+2
				1st Qt.	2nd Qt.	3rd Qt.	4th Qt.	Total		
6a. EFFECTIVENESS										
* Accuracy of file										
1.										
* Average time for updating files										
2.										
* Average time of record retrieval from file-on-line. Beginning FY 1972										
3.										
* Average entry time of registration records on-line. Beginning FY 1972										
4.										
5.										
* Information will be available upon completion of the new Traffic Records Data System.										
6.										

## MOTOR VEHICLE REGISTRATION

The long-term goal of the motor vehicle registration program is to reduce the number of deaths and injuries and the amount of property damage caused by traffic law violators who should have had their driving privileges revoked or suspended because of previous violations. The immediate goal is to make available such records that will enable the police to apprehend traffic violators in a minimum amount of time.

The Division of Motor Vehicles is responsible for this endeavor and performs the following in pursuing the above goal.

- (1) Ensures the proper titling of all vehicles and trailers to have record of all legal owners and lienholders and to prevent fraud upon the consumer in the purchase of a stolen vehicle.
- (2) Ensures the proper licensing of all vehicles and trailers in order that proper and instant identification is available. (Also see Sub-element 310 Motorist Data Base Project.)
- (3) Ensures the proper collection of all motor fuel tax to ensure funds for highway construction and maintenance utilizing proven techniques of safety engineering and design.
- (4) Ensures the proper licensing of all motor vehicle dealers to promote the interest and protection of the general public.
- (5) Ensures the proper issuance of permits and the collection of fees for vehicles operated over the highways under restricted conditions because they are too large to be licensed.
- (6) Answers all correspondence and furnishes automated file information for the public, courts, and law enforcement agencies by direct computer inquiry with a minimum response time.

- (7) Ensures the collection of the uninsured motorist fee on the registration of vehicles that are not insured and encourages owners to obtain proper liability insurance for coverage in the event of a crash.
- (8) Provides the necessary means for the electronic data processing of motor vehicle registration transactions.

Subject to the passage of enabling legislation, the Division will:

- (1) Require the owner of a motor vehicle to notify the Division of any change of address. This will permit location of owners whose vehicles have been involved in an accident or traffic violation. A public information program is planned to educate motor vehicle owners of the new requirement.
- (2) Change from an annual renewal of vehicle licenses to a staggered license issue of a five-year plate that is revalidated annually. This will allow an individual to have permanent assignment of license plates and the law enforcement agencies the advantage of permanent identification of the registered owner, rapid identification and detection of stolen motor vehicles in crashes, and in the control of vehicle use by problem drivers.



HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN			1. State of Virginia		2. TITLE		Motorcycle Safety		3. NO. 46-73-03-01		MS-73-161		4. DATE 4-1-72			
5. DRAFTED BY W. L. Howard APPROVED BY J. T. Hanna							1971 FY-2		1972 FY-1		FISCAL YEAR 1973		1974 FY+1		1975 FY+2	
6a. EFFECTIVENESS No. of Motorcycle Accidents and Fatalities							See Effectiveness Supplement to the Subelement									
6b. OUTPUT			C% Drivers Licensed to Operate a Motorcycle													
			VNo. Drivers Licensed to Operate a Motorcycle													
7. RESP. State Police  Driver Education Services of the Depart- ment of Educ- ation	8. STD.	303	9. TASKS & MILESTONES		Law Passed & Imple.								Imple.			
		303	1. Helmet standard - requirement for both driver and rider to wear state approved helmets.												Review Con't.	
		303	2. Out of school program for motorcycle operators. Include as part of our adult driver education program.		Devel.		Imple.		Con't.		Con't.		Con't.		Con't. Review	
		303	3. Program to educate operators, passengers, and dealers in proper motorcycle operations.		Develop		Imple.		Imple.		Imple.		Imple.		Imple. Review	
10. DESCRIPTION			11. COST BY TASK (\$000)		(Cost is shown within SEP 304)											
Although the number of motorcycle registrations in Virginia has been increasing each year, it is fortunate that this tremendous growth has not been accompanied by a corresponding increase in deaths and injuries resulting from motorcycle accidents. To reduce the number of motorcycle related accidents, Virginia has established programs in pre-accident preventive measures and post-crash minimization of injury. These programs include:			2 and 3													
1. The presentation of motorcycle safety programs to operators, passengers, and dealers			12. TOTAL COST (\$000)		0		20		55		5		7		112	
			LOCAL SHARE		0		0		25		0		0		56	
			STATE SHARE		0		10		2.5		2.5		3.5		11	
			FEDERAL SHARE		0		16		27.5		2.5		3.5		36	
			TO LOCALITIES		0		0		27.5		2.5		3.5		36	





HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia		2. TITLE		Motorcycle Safety		3. NO. MS-73-161 46-73-03-02		4. DATE 4-1-72			
5. DRAFTED BY APPROVED BY		W. L. Howard J. T. Hanna		1971 FY-2		1972 FY-1		FISCAL YEAR 1973 1st Q 2nd Q 3rd Q 4th Q TOTAL		1974 FY+1		1975 FY+2	
6a. EFFECTIVENESS													
6b. OUTPUT		C											
		V											
7. RESP.	8. STD.	9. TASKS & MILESTONES											
HSD	303	4. Public Information Program (Contract with Consultant)											
Local Political	303	5. Motorcycle training courses (No.)											
Subdivision	303	6. Educational TV Program for Motorcycle Safety											
Driver		7. High School Motorcycle Safety Program (Included Within Regular Driver Education Curriculum)											
Education		8. Law Requiring That Motorcycle Operators Take and Pass Special Motorcycle Driving Test (Special Permit)											
Services		Passed											
"													
"													
10. DESCRIPTION		11. COST BY TASK (\$000)											
2. Establishment of motorcycle training classes and facilities for both in and out of school motorcycle operators.		4. Public Information Program											
3. Programs, via newsmedia, to familiarize automobile operators with the inherent limitations and hazards of motorcycle operations. This is also discussed in the State's driver education programs.		5. Motorcycle Training Courses											
		6. Educational TV											
		7. High School											
		(Cost Shown in SEP 304)											
Recognizing that accidents will occur regardless of precautions, the State has enacted legislation requiring that all motorcycle drivers and		12. TOTAL COST (\$000)											
		LOCAL SHARE											
		STATE SHARE											
		FEDERAL SHARE											
		TO LOCALITIES											

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia		2. TITLE		Motorcycle Safety		3. NO. MS-73-161 46-73-03-03		4. DATE	
5. DRAFTED BY W. L. Howard APPROVED BY J. T. Hanna		1971 FY-2		1972 FY-1		FISCAL YEAR 1973 1st Q 2nd Q 3rd Q 4th Q		1974 FY+1		4-1-72 1975 FY+2	
6a. EFFECTIVENESS											
6b. OUTPUT											
7. RESP.		8. STD.		9. TASKS & MILESTONES		0		Survey & Report		Contract	
Driver Education Services and Traffic Records Committee		310		9. Data System						Imple. Update	
10. DESCRIPTION		<p>passengers wear a State-approved helmet and also some type of eye protection. During the next fiscal year the State plans to hire a consultant to develop and submit an educational program in motorcycle safety to be used throughout the State. Motorcycle safety will be included as part of the driver education curriculum.</p> <p>Guidelines for developing a motorcycle education program have already been completed and sent to all political subdivisions by the Driver Education Services of the State Department of Education. The driving ranges and other equipment at our local high schools will be utilized in</p>									
11. COST BY TASK (\$000)		(Cost Shown in SEP 310)									
9. Data System											
12. TOTAL COST (\$000)											
LOCAL SHARE											
STATE SHARE											
FEDERAL SHARE											
TO LOCALITIES											

Motorcycle Safety MS-73-161  
46-73-03-04

DESCRIPTION: (Cont.)

teaching the motorcycle safety program. The State is also looking into the possibility of building several motorcycle training courses for the instruction of proper motorcycle operation. These courses would be very similar to the multi-car driving ranges. The Driver Education Services of Virginia is currently working with the Traffic Records Committee appointed by the Director of the Highway Safety Division to develop a data system that would enable the state to effectively evaluate the entire motorcycle safety program throughout the State.

1261

HIGHWAY SAFETY PROGRAM SUBELEMENT SUPPLEMENT		1. State of Virginia		2. TITLE		Motorcycle Safety		MS-73-161 3. No. 47-73-03-05		4. DATE 4-1-72	
		TOTAL		TASKS							
		1	2	3	4	5	6	7	8	9	10
13.	D Standard: 303										
	I Total (\$000)	72			20	50	2				
	S Federal	36			10	25	1				
	T To Localities	36			10	25	1				
	R Prev. Obligations										
	New Obligations	36			10	25	1				
	I Standard:										
	B Total										
	U Federal										
	T To Localities										
	I Prev. Obligations										
	O New Obligations										
	N Standard:										
	B Total										
	Federal										
	T To Localities										
	I Prev. Obligations										
	O New Obligations										
	S Standard:										
	T Total										
	A Federal										
	N To Localities										
	D Prev. Obligations										
	New Obligations										
	A Total										
	R Federal										
14.	D To Localities										
	Prev. Obligations										
	Local Costs by Object										
	Salaries										
	Per Diem and Travel										
	Contracts										
	Equipment										
	Supplies										
	Maintenance and Operations										
	Total										

EFFECTIVENESS SUPPLEMENT  
TO THE SUBELEMENT

Title and No.	Motorcycle Safety MS-73-161 46-73-03-06	Date 4/1/72	1967 FY-2	1968 FY-1	Fiscal Year 1969					1970 FY+1	1971 FY+2
					1st Qt.	2nd Qt.	3rd Qt.	4th Qt.	Total		
6a. EFFECTIVENESS											
1.	Urban Motorcycle Accidents Fatalities		819 22	813 10					740 10	873 11	*811 8
2.	Rural Motorcycle Accidents Fatalities		652 26	673 26					581 13	712 16	*600 8
3.	**Number of Motorcycle Fatalities Among Those: 1. Wearing a Helmet 2. Not Wearing a Helmet										
4.											
5.											
6.	* Projected ** Information will not be available until new traffic records system is developed.										

## MOTORCYCLE SAFETY

In 1961 there were 6,347 motorcycles registrations in Virginia. This figure increased to more than 33,000 in 1970. Accident data since 1966 indicate that very little has been done toward reducing the number of accidents due to the increased registrations and lack of sufficient motorcycle safety programs. In 1966 there were 1,421 motorcycle accidents with 23 persons killed. In 1967 there were 1,471 accidents with 48 persons killed. Accidents increased to 1,486 in 1968 but the number of fatalities decreased by 12. 1969 showed the first major decrease in motorcycle accidents. There were only 1,321 accidents in 1969 with only 23 people killed. This improvement can be attributed to the state's highway safety programs and the passage of a law requiring that all motorcycle drivers and passengers wear a state approved safety helmet.

In 1970 there was a substantial increase of more than 7,000 motorcycle registrations over 1969. This was the largest increase since 1966. Accordingly, the number of accidents increased from 1,321 in 1969 to 1,585 in 1970. However there were only 28 persons killed, which once again indicates that the recently developed motorcycle curriculum, informational programs, and the passage of the helmet law have contributed significantly toward the goal of reducing the number of persons killed and injured on the highway.

Programs proposed for fiscal year 1973, which will assure continuing decreases in deaths and injuries among those operating motorcycles, include the following:

- (a) Development and implementation of an out-of-school motorcycle safety program. The program will be integrated within the adult driver education program utilizing the facilities and equipment at high schools.

- (b) A public information program designed to familiarize the driving public as well as the general public with the inherent limitations and hazards of motorcycle operations will be developed and implemented.
- (c) A motorcycle safety curriculum will be presented through the high school driver education program for the purpose of training all potential motorcycle operators concerning the proper operation and the limitations of motorcycles. An educational television program will also be developed for this purpose.

During the next fiscal year the state plans to hire a consultant to develop and submit an educational program in motorcycle safety to be used throughout the state. Motorcycle safety will be included as part of the driver education curriculum. Guidelines for developing a motorcycle educational program have been completed and sent to all political subdivisions by the Driver Education Services of the State Department of Education. The driving ranges and other equipment at local high schools will be utilized in teaching the motorcycle safety program. The state is also looking into the possibility of building several motorcycle training courses for instruction in the proper operation of motorcycles. These courses would be similar to the multi-car driving ranges. The Driver Education Services is currently working with the Traffic Records Committee appointed by the Director of the Highway Safety Division to develop a data system that will enable the state to effectively evaluate the entire motorcycle safety program throughout the state.





HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE Driver Education		High School		3. NO. 46-73-04-01		DE-73-161		4. DATE 4/1/72	
5. DRAFTED BY W. L. Howard APPROVED BY J. T. Hanna		1971 FY-2	1972 FY-1	FISCAL YEAR 1973		1st Q	2nd Q	3rd Q	4th Q	TOTAL	1974 FY-1	1975 FY-2
6a. EFFECTIVENESS No. of Traffic Violations Per 100 Students		17	13	* See Effectiveness Supplement to the Supplement						10	8	6
6b. OUTPUT		C Percent of High School Students Taking Driver Education		86	89							
		V No. of High School Students Taking Driver Education		63,087	66,000							
7. RESP. Driver Ed.	8. STD. 304	Cont'd.	Cont'd.	Cont'd.	Cont'd.	Cont'd.	Cont'd.	Cont'd.	Cont'd.	Cont'd.	Cont'd.	Cont'd.
Supervisor	304	180	180	22	23	8	8	8	8	90	90	90
Supervisor	304	1	4	8	8	8	8	8	8	9	9	12
Supervisor	304	Imple.	Cont'd.	Cont'd.	Cont'd.	Cont'd.	Cont'd.	Cont'd.	Cont'd.	Cont'd.	Cont'd.	Cont'd.
Supervisor	304	Cont'd.	Cont'd.	Cont'd.	Cont'd.	Cont'd.	Cont'd.	Cont'd.	Cont'd.	Cont'd.	Cont'd.	Cont'd.
Supervisor	304	200	200	220	220	220	220	220	220	240	240	260
Supervisor	304	13	14	15	15	15	15	15	15	15	15	15
10. DESCRIPTION												
The long-term goal of the High School Driver Education program in Virginia is to help reduce the number of accidents including fatalities, personal injuries and property damage caused by drivers with poor driving habits and/or attitudes. To accomplish this we intend to make available a driver education course to all eligible high school students. In meeting the above goal, we intend to accept the responsibility at the state level for leadership in regard to direction, coordination, supervision, and promotion of quality driver education programs. (See Attachment A.) Projects and programs being utilized at present to implement:												
11. COST BY TASK \$(000)												
1. Driver Education Certificate		1.0	1.5	0.5	0.5	0.5	0.5	0.5	0.5	2.0	2.0	2.0
2. Educational TV		6.0	6.0	1.0	1.0	1.0	1.0	1.0	1.0	4.0	2.0	2.0
12. TOTAL COST \$(000)		11191.1	13130.4	4327.5	3643.33	3643.33	3643.33	3643.33	3643.33	15257.5	15004.6	15422.6
LOCAL SHARE		8595.1	10231.7	2879.85	2875.83	2876.83	2876.83	2876.83	2876.83	11589.35	10804.6	10322.6
STATE SHARE		2042	2640	731	731	730	730	730	730	2922	3200	4000
FEDERAL SHARE		554	558.735	716.65	36.5	36.5	36.5	36.5	36.5	826.15	1000	1100
TO LOCALITIES		508	227.5	698.5	21.1	21.1	21.1	21.1	21.1	761.8	950	1050

\* Includes a One-Million-Dollar Grant to Human Resources Research Organization from the Federal Government.



HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia		2. TITLE		High School Driver Education		3. NO. DE-73-161 46-73-04-02		4. DATE 4-1-72	
5. DRAFTED BY William Howard APPROVED BY John T. Hanna		1971 FY-2		1972 FY-1		FISCAL YEAR 1973 1st Q 2nd Q 3rd Q 4th Q TOTAL		1974 FY+1		1975 FY+2	
6a. EFFECTIVENESS											
6b. OUTPUT											
7. RESP.		9. TASKS & MILESTONES									
Driver Educ.		8. Reevaluation of Driver Education Certificate									
Services		9. Submit data pertaining to Deaths, Accidents and Violations to all schools offering driver education.									
"		(No. of Localities Receiving Report)									
"		10. Contract With Human Resources Research Organization (HumRRO) For Model Curriculum Guide.									
10. DESCRIPTION continued.		11. COST BY TASK (\$000)									
the total Driver Education Program as presented in Attachment A are shown below:		10. (HumRRO) 403 Funds									
1. Passing of 1968 Legislation requiring that all persons shall successfully complete a state approved Driver Education program consisting of both classroom instruction and in-car instruction before being eligible to apply for a Virginia operator's license prior to 18 years of age.		Contract Bids									
2. Statewide educational television utilizing "Sportsmanlike Driving" series.											
3. Semester course scheduling — pilot program.											
4. Driver Education Certification.											

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN			1. State of Virginia		2. TITLE Driver Education		3. NO. DE-73-161 46-73-04-03		4. DATE 4-1-72		
5. DRAFTED BY William Howard APPROVED BY John T. Hanna			1971 FY-2	1972 FY-1	1st Q	2nd Q	3rd Q	4th Q	TOTAL	1974 FY+1	1975 FY+2
6a. EFFECTIVENESS											
6b. OUTPUT			C								
V											
7. RESP. Driver Educ. Supervisor	8. STD. 304	9. TASKS & MILESTONES									
Local School Board	304	11. Personnel									
		A. State Level									
		1. Supervisor \$16,500	1	1	1	1	1	1	1	1	1
		2. Assistant Supervisors \$13,000 each	1	2	3	3	3	3	3	3	3
		3. Secretaries \$6,000 each	2	3	3	3	3	3	3	3	3
		B. School Personnel									
		1. Coordinators \$14,000 each	17	20	21	21	21	21	21	22	23
		2. Classroom Instructors \$8,000 each	746	804	850	850	850	850	850	900	930
		3. In-Car Instructors \$8,000 each	640	690	740	740	740	740	740	710	720
		4. No. of Teachers Endorsed to Teach Driver Education	3,750	4,225	4,700	4,700	4,700	4,700	4,700	5,000	5,500
		5. Annual help, part-time							5	5	5
10. DESCRIPTION (continued)											
5. Alcohol Countermeasures Program											
6. Driver Education Car Control Program											
7. Membership in (VADETS) Virginia Association for Driver and Traffic Safety Education and the Virginia Education Association.											
The Driver Education Services of the Department of Education is responsible for the entire program in Virginia.											
The Division of Motor Vehicles has designed a data system to analyze the driving history of persons completing a driver education training course and those receiving a driver											
11. COST BY TASK (\$000)											
11. Personnel											
A. State			38.1	58.1	18,375	18,375	18,375	18,375	73.5	78.5	82.5
B. Local (12 Mo. Pay Period)			10,123	12,232	3253.5	3253.5	3253.5	3253.5	13,014	13,190	13,524
12. TOTAL COST											
LOCAL SHARE											
STATE SHARE											
FEDERAL SHARE											
TO LOCALITIES											



1260

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE	High School Driver Education				3. NO. DE-73-161 NO. 46-73-04-05	4. DATE 4-1-72	
5. DRAFTED BY APPROVED BY		William Howard John T. Hanna	1971 FY-2	1972 FY-1	FISCAL YEAR 1973 1st Q 2nd Q 3rd Q 4th Q				1974 FY+1	1975 FY+2
6a. EFFECTIVENESS										
6b. OUTPUT										
7. RESP. Local School Board	8. STD. 304	9. TASKS & MILESTONES 14. Contractual Services A. Vehicles B. Vehicle Maintenance (Gas, Oil) \$200/Veh. C. Maintenance Agreements (Simulators) D. Car Insurance \$150/Car	890	900	950	950	950	950	970	
			890	900	950	950	950	950	970	
			264	408	488	488	488	568	600	
			890	900	950	950	950	960	970	
10. DESCRIPTION continued. will enable us to evaluate our driver education program more effectively. The school systems in our state continue to update their programs by purchasing simulators and driving ranges and also by hiring additional teachers to provide driver education to all eligible students. The Safety Section of the Virginia Highway Research Council is developing a driver education curriculum unit of instruction designed primarily to inculcate and/or modify attitudes of high school students who are learning to drive.		11. COST BY TASK (\$000)	391	437	119.5	119.5	119.5	478	583	
		14. Contractual Services								
		12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES								

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE	High School Driver Education		3. NO.	DE-73-161 46-73-04-06	4. DATE	4-1-72
5. DRAFTED BY APPROVED BY		William Howard John T. Hanna	1971 FY-2		1972 FY-1	FISCAL YEAR 1973		1974 FY+1	1975 FY+2
6a. EFFECTIVENESS		1st Q		2nd Q	3rd Q	4th Q	TOTAL		
6b. OUTPUT		C		V					
7. RESP.	8. STD.	9. TASKS & MILESTONES		10		3			
Local School Board	304	15. Procedure Equipment		10		9			
		A. Simulators 12 Station Units at \$5,000 each		NA		NA			
		B. Multi-Car Driving Range (\$30,000) each		NA		NA			
		Includes all Equipment		NA		NA			
		C. Drivocators \$14,000 each		NA		NA			
		D. Office Equipment		NA		NA			
10.		11. COST BY TASK (\$000)		380		114	380	0	0
		15. Equipment		250		270	240	0	0
		A. Simulators		0		0	42	0	0
		B. Ranges		NA		NA	0	0	0
		C. Drivocators							
		D. Office Equipment							
		12. TOTAL COST (\$000)							
		LOCAL SHARE							
		STATE SHARE							
		FEDERAL SHARE							
		TO LOCALITIES							

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia		2. TITLE		High School Driver Education				3. NO. <u>DE-73-161</u> <u>46-73-04-07</u>		4. DATE 4-1-72	
		5. DRAFTED BY William Howard APPROVED BY John T. Hanna		1971 FY-2	1972 FY-1	FISCAL YEAR 1973		4th Q		TOTAL	1974 FY+1	1975 FY+2	
6a. EFFECTIVENESS													
6b. OUTPUT		C											
		V											
7. RESP. Driver Education Services of the Department of Education	8. STD. 304	9. TASKS & MILESTONES 16. Procure Equipment C. State Level 1. Projectors at \$220 each 2. Tape Cartridges at \$3.00 each 3. Cousine at \$225.00 each 4. Slide Trays at \$3.00 each 5. Carrying Case at \$11.00 each 6. Lamps at \$10.00 each 7. Bookcases at \$200.00 each 8. Typewriter at \$700.00 each											
		1	1	0	0	0	0	0	0	0	0	0	
		6	3	8	0	0	0	0	0	8	6	6	
		1	1	0	0	0	0	0	0	0	0	0	
		4	1	5	0	0	0	0	0	5	1	1	
		1	1	1	0	0	0	0	0	1	0	0	
		2	3	5	0	0	0	0	0	5	3	3	
		0	0	2	0	0	0	0	0	2	0	0	
		0	0	1	0	0	0	0	0	1	0	0	
10.		.506	.498	1.2	0	0	0	0	0	1.2	.051	.051	
11. COST BY TASK (\$000) 16. Equipment (State)													
12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES													



HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE High School Driver Education	3. NO. DE-73-161 46-73-04-08	4. DATE 4/1/72
5. DRAFTED BY William Howard APPROVED BY John T. Hanna		1971 FY-2	1972 FY-1	FISCAL YEAR 1973 1st Q 2nd Q 3rd Q 4th Q TOTAL	1974 FY+1 1975 FY+2
6a. EFFECTIVENESS					
6b. OUTPUT	C				
	V				
7. RESP.	8. STD.	9. TASKS & MILESTONES			
DMV	310	17. Traffic records system for extracting the necessary data from the driver history file, analyzing and correlating the data, and produce a final report.			
Traffic Records Committee	310	18. In conjunction with the traffic records committee develop a data system for measuring more effectively the high school driver education program.			
Highway Research Council	304	19. Develop Attitude Modification Curriculum.			
Driver Educ. Services	303	20. Motorcycle Driver Education Program			
10.		11. COST BY TASK \$(000)			
		17. Data System			
		19. Develop Curriculum			
		Cost Included In SEP '80 - Under Safety Section			
		12. TOTAL COST			
		LOCAL SHARE			
		STATE SHARE			
		FEDERAL SHARE			
		TO LOCALITIES			

HIGHWAY SAFETY PROGRAM SUBELEMENT SUPPLEMENT		1. State of Virginia		2. TITLE		High School Driver Education		3. No.		4. DATE 4-1-72		
		TASKS										
		TOTAL	1	2	3	4	5	6	7	8	9	10
13.	D Standard: 304											
I	Total \$(000)	15,257.5	2.0	4.0								1,000
S	Federal	826	2.0	4.0								
T	To Localities	888										
R	New Obligations	826	2.0	4.0								
I	Standard:											
B	Total											
U	Federal											
T	To Localities											
I	Prev. Obligations											
O	New Obligations											
N	Standard:											
	Total											
B	Federal											
Y	To Localities											
	prev. Obligations											
	New Obligations											
S	Standard:											
T	Total											
A	Federal											
N	To Localities											
D	Prev. Obligations											
	New Obligations											
A	Total											
R	Federal											
D	To Localities											
	Prev. Obligations											
14.	Local Costs by Object											
	Salaries											
	Per Diem and Travel											
	Contracts											
	Equipment											
	Supplies											
	Maintenance and Operations											
	Total											

HIGHWAY SAFETY PROGRAM SUBELEMENT SUPPLEMENT		1. State of Virginia		2. TITLE		High School Driver Education		3. No. 46-73-04-10		DATE 4-1-72	
		TASKS		TASKS		TASKS		TASKS		TASKS	
		TOTAL	11	12	13	14	15	16	17		
13.	D Standard: 304										
	I Total \$(000)	13,087.5	1.8	1.8	18	478	665	1.2			
	S Federal	129	1.8	1.8	18	5	665	1.2			
	T To Localities	200	0	0	18	5	665	0			
	R New Obligations	129	1.8	1.8	18	5	665	1.2			
	I Standard:										
	B Total										
	U Federal										
	T To Localities										
	I Prev. Obligations										
	O New Obligations										
	N Standard:										
	T Total										
	F Federal										
	T To Localities										
	Y Prev. Obligations										
	New Obligations										
	S Standard:										
	T Total										
	A Federal										
	N To Localities										
	D Prev. Obligations										
	New Obligations										
	A Total										
	R Federal										
	D To Localities										
	Prev. Obligations										
14.	Local Costs by Object										
	Salaries										
	Per Diem and Travel										
	Contracts										
	Equipment										
	Supplies										
	Maintenance and Operations										
	Total										

1275

EFFECTIVENESS SUPPLEMENT  
TO THE SUBELEMENT

Title and No.	DE-73-161 46-73-04-11	Date 4-1-72	19 <u>70</u> FY-2	19 <u>71</u> FY-1	Fiscal Year 72					19 <u>73</u> FY+1	19 <u>74</u> FY+2
					1st Qt.	2nd Qt.	3rd Qt.	4th Qt.	Total		
6a. EFFECTIVENESS											
* Number of violations among those completing a high school driver education course.											
1.			10,969								
* Personal injuries among those having completed high school driver education											
2.			2,716								
* Fatalities among those having completed high school driver education											
3.			26								
4.											
5.											
* These figures represent the injuries and fatalities among those students who have completed high school driver education in the school year 1970-71											
6.											

EFFECTIVENESS SUPPLEMENT  
TO THE SUBELEMENT

1276

Title and No.	DE-73-161 46-73-04-12 Commercial Driver Education	Date 4-1-72	19 71 FY-2	19 72 FY-1	Fiscal Year 1973					19 74 FY+1	19 75 FY+2
					1st Qt.	2nd Qt.	3rd Qt.	4th Qt.	Total		
6a. EFFECTIVENESS											
* (1) Deaths											
(2) Injuries											
(3) Economic loss among those completing a commercial driver education course											
1.											
2.											
3.											
4.											
5.											
* Data not available. (See SEP 310)											
6.											

## ATTACHMENT A

WORK PROCEDURES IN DEVELOPING THE STATE APPROVED  
DRIVER EDUCATION PROGRAM

Active assistance by staff members includes:

1. Provide advisory and consultive services to help local school systems improve and expand their programs,
2. Aid local school systems in developing effective patterns of administration and supervision,
3. Establish and promulgate standards for high school courses,
4. Encourage teacher preparation institutions to establish and offer high-quality teacher preparation programs,
5. Develop and distribute resource materials, i.e., curriculum guides, administrative handbooks, and other pertinent information,
6. Develop guides to aid school divisions in the purchasing or otherwise obtaining automobiles and other equipment for laboratory instruction, including plans for the preventive maintenance of such equipment and its periodic replacement,
7. Advise local school systems on matters of insurance and legal responsibilities related to administration and operation of programs,
8. Stimulate local school systems to undertake in-service programs for teachers and to encourage these teachers to acquire additional professional preparation,
9. Serve as liaison staff in order to develop and maintain close working relationships with interested agencies (both official and nonofficial),
10. Counsel on types of, and specifications for, facilities and equipment to take advantage of new developments (use of television, multiple-car driving ranges and simulators).

ATTACHMENT B  
SAMPLE  
BREAKDOWN OF DRIVER EDUCATION STATISTICS  
FOR SCHOOL YEAR 1970-71

	City	SCHOOL DIVISION	Sample Numbers
1. Total Number of Students Successfully Completing a State-approved Driver Education Program in the State			63,087
2. Total Number of Students Successfully Completing a State-approved Driver Education Program in Your School Division			109
*3. The Rank of Your Division as Compared to Other School Divisions for Students Successfully Completing a State-approved Driver Education Program			29
4. Total Number of Violations in the State, City, and County	City		3,995
	County		6,974
	Total		10,969
5. Total Number of Violations in Your School Division			21
*6. The Rank of Your Division as Compared to the Rank of Other School Divisions in Violations			26
*7. Your Rank in the State as to the Number of Students Trained in Your Division as Compared to the Rank for the Number of Violations in your Division	Trained		29
	Violations		26
8. Your School Division Had 19 Violations for Every 100 Students Trained. The Average Number of Violations per 100 Students Trained in the State is:	County		17
	City		18

- \* Cities Ranked with Cities
- \* Counties Ranked with Counties

SAMPLE  
DRIVER EDUCATION STATISTICS  
FOR FISCAL YEAR ENDING JUNE 30, 1971

City	<u>ACCIDENTS</u>	<u>NO.</u>	<u>NO. DRIVERS INVOLVED</u>		<u>VIOLATIONS, TYPE</u>	<u>NO.</u>	<u>NO. DRIVERS INVOLVED</u>	
			<u>M</u>	<u>F</u>			<u>M</u>	<u>F</u>
	PERSONAL INJURY	5	5	0	SPEEDING	6	6	0
	PROPERTY DAMAGE	10	8	2	RECKLESS DRIVING	3	3	0
	FATALITY	0	0	0	DRIVING INTOXICATED	1	1	0
					OPER. IMPROPER CONTROL	1	1	0
					IMPROPER DRIVING	3	3	0
					IMPROPER EQUIPMENT	1	1	0
					OPER. VEH. ILLEGAL/NO			
					INSPECTION STICKER	2	1	1
					DRIVE WITHOUT LIC.	1	1	0
					NO OPER. LIC.	1	1	0
					EXPIRED LIC.	1	1	0
					TITLE, REGISTER, LIC. PLATES	1	1	0
					TOTAL	21		

127







HIGHWAY SAFETY PROGRAM SUBELEMENT SUPPLEMENT		1. State of Virginia		Adult 2. TITLE Driver Education							3. No. 46-73-04-034. DATE 4-1-72		
		TOTAL		1	2	3	4	5	6	7	8	9	10
TASKS													
13.	D	Standard: 304											
	I	Total \$(000)	9.5	0					6.5	1	2		
	S	Federal	9.5	0					6.5	1	2		
	T	To Localities	9.5	0					6.5	1	2		
	R	Prev. Obligations											
		New Obligations	9.5	0					6.5	1	2		
14.	I	Standard:											
	B	Total											
	U	Federal											
	T	To Localities											
	I	Prev. Obligations											
	O	New Obligations											
	N	Standard:											
		Total											
	B	Federal											
	Y	To Localities											
		Prev. Obligations											
		New Obligations											
	S	Standard:											
	T	Total											
A	Federal												
N	To Localities												
D	Prev. Obligations												
	New Obligations												
A	Total												
R	Federal												
D	To Localities												
	Prev. Obligations												
	Local Costs by Object												
	Salaries												
	Per Diem and Travel												
	Contracts												
	Equipment												
	Supplies												
	Maintenance and Operations												
	Total												

EFFECTIVENESS SUPPLEMENT  
TO THE SUBELEMENT

Title and No.	Date	19 71 FY-2	19 72 FY-1	Fiscal Year 73					19 74 FY+1	19 75 FY+2
				1st Qt.	2nd Qt.	3rd Qt.	4th Qt.	Total		
DE-73-162 46-73-04-04 Adult Driver Education	4-1-72									
6a. EFFECTIVENESS										
* Number of adults with traffic violations that have attended an adult driver education course.										
1.										
* Percent of the total state accidents caused by those adults having attended an adult driver education course.										
2.										
* Amount of economic loss from accidents among those having attended an adult driver education course.										
3.										
* Number of deaths among those completing an adult driver education course.										
4.										
* Amount of property damage among those completing an adult driver education course.										
5.										
* Information will be available upon completion of the states new traffic records system.										
6.										

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE	Driver Improvement School				3. NO. <u>DE-73-163</u> <u>46-73-04-01</u>	4. DATE	7-1-72	
5. DRAFTED BY W. L. Howard APPROVED BY John T. Hanna		1971 FY-2	1972 FY-1	1st Q	2nd Q	3rd Q	4th Q	TOTAL	1974 FY+1	1975 FY+2	
6a. EFFECTIVENESS Number of people convicted of hazardous moving violations com- pleting driver improvement schools		See	Effective	Subelement							
6b. OUTPUT		NA	NA								
7. RESP.	8. STD.	73	103								
9. TASKS & MILESTONES											
Local Political Subdivisions	304	1. Driver Improvement School (No. Established)									
Community College	304	2. Regional Training Centers for Traffic Improvement (No.)									
Traffic Records Committee	310	3. Data System									
Driver Education Services	304	4. Hire Personnel (State D. E. S.)									
	304	5. Clerical Staff									
		6. Travel									
10. DESCRIPTION : In order to reduce the number of accidents, including fatalities, personal injuries and property damage, caused by poor driving habits and/or attitudes of drivers, Virginia plans to increase the number of cities and counties that make available driver improvement schools. The driver improvement schools have been established in our state for the repeat traffic law violators who are referred by the courts in lieu of fines or possible revocation of license. In most cases the violator must attend 8 hours of classroom instruction during the next year. The Driver Education Services of Virginia will attempt to establish schools in as many cities and counties as possible. The equipment and personnel of the local high schools will be		35	50	15.625	15.625	15.625	15.625	15.625	62.5	75	80
11. COST BY TASK \$(000)											
1. Driver Improvement Schools \$5 per student; 100 students per year		0	0	15	15	15	15	15	60	60	60
2. Training Centers		0	0	3.625	3.625	3.625	3.625	3.625	14.5	15	16
4. Personnel		0	0	1.3	1.3	1.3	1.3	1.3	5.2	5.5	6
5. Clerical Staff				.5	.5	.5	.5	.5	2	2.5	3
6. Travel											
12. TOTAL COST \$(000)		35	50	36.05	36.05	36.05	36.05	36.05	144.2	158	165
LOCAL SHARE		35	50	15.62	15.62	15.62	15.62	15.62	62.5	75	80
STATE SHARE		0	0	7.5	7.5	7.5	7.5	7.5	30.0	30	30
FEDERAL SHARE		0	0	12.925	12.925	12.925	12.925	12.925	51.7	53	55
TO LOCALITIES		0	0	7.5	7.5	7.5	7.5	7.5	30.0	30	30

Driver Improvement Schools DE-73-163  
46-73-04-02

DESCRIPTION: (Cont.)

utilized for this program. One full-time staff member has been hired at the state level for coordination of the program. A driver improvement school has recently been developed in the Fairfax area in conjunction with the ASAP in order to make available a driver education course to those individuals charged with DWI and other traffic law violations. An evaluation of our program will be made upon completion of the new traffic records system. This is being handled by the traffic records committee recently appointed by the Highway Safety Division.

Driver improvement schools are part of our adult driver education program in Virginia. Traffic violators remain anonymous while attending the school. In many cases the judges have requested that their local governing bodies establish these schools.

HIGHWAY SAFETY PROGRAM SUBELEMENT SUPPLEMENT		1. State of Virginia		2. TITLE Improvement Schools		Driver		DE-73-163		3. No. 46-73-04-03		4. DATE 4-1-72	
		TOTAL		1	2	3	4	5	6	7	8	9	10
		TASKS											
13.	D Standard: 304												
I	Total \$(000)	144.2	62.5	60			14.5	5.2	2				
S	Federal	51.7	0	30			14.5	5.2	2				
T	To Localities	30.0		30			0	0	0				
R	Prev. Obligations	0		0			0	0	0				
	New Obligations	51.7		30			14.5	5.2	2				
I	Standard:												
B	Total												
U	Federal												
T	To Localities												
I	Prev. Obligations												
O	New Obligations												
N	Standard:												
	Total												
B	Federal												
Y	To Localities												
	Prev. Obligations												
	New Obligations												
S	Standard:												
T	Total												
A	Federal												
N	To Localities												
D	Prev. Obligations												
	New Obligations												
A	Total												
R	Federal												
D	To Localities												
	Prev. Obligations												
14.	Local Costs by Object												
	Salaries												
	Per Diem and Travel												
	Contracts												
	Equipment												
	Supplies												
	Maintenance and Operations												
	Total												

EFFECTIVENESS SUPPLEMENT  
TO THE SUBELEMENT

Title and No. <u>DE-73-163</u> <u>46-73-04-04</u> Driver Improvement Schools	Date 4-1-72	19 <u>71</u> FY-2	1972 FY-1	Fiscal Year 73					19 <u>74</u> FY+1	19 <u>75</u> FY+2
				1st Qt.	2nd Qt.	3rd Qt.	4th Qt.	Total		
6a. EFFECTIVENESS										
* Number of accidents and fatalities among those having completed a driver improvement school										
1.										
* Traffic violations among those having attended a driver improvement school										
2.										
3.										
4.										
5.										
* Data will be available upon completion of our new traffic records system.										
6.										

1287



HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia		2. TITLE		Driver Education for the Handicapped				3. NO. 46-73-04-01		DE-73-164		4. DATE 4-1-72		
5. DRAFTED BY APPROVED BY		W. L. Howard J. T. Hanna		19 71 FY-2	19 72 FY-1	FISCAL YEAR 19 73				19 74 FY+1	19 75 FY+2					
						1st Q	2nd Q	3rd Q	4th Q	TOTAL						
6a. EFFECTIVENESS See Effectiveness Supplement to the Subelement																
6b. OUTPUT				C% of Handicapped Drivers Completing D. E.												
				V No. of Handicapped Drivers Completing D. E.												
7. RESP.	8. STD.	9. TASKS & MILESTONES														
Local School	304	1. High schools with vocational driver education (No.)														
Board																
Local Political	304	2. Special driver education for the handicapped														
Subdivisions		A. No. of cities with programs														
and Dept. of		B. No. of students at Woodrow Wilson Rehabilitation Center														
Education																
Dept. of Educ.	304	3. Driver education at boys home (No. of students)														
Dept. of Educ.	304	4. Driver education certificate														
10. DESCRIPTION To reduce the number of accidents including fatalities, personal injuries and property damage among those drivers with both physical and mental handicaps, the Driver Education Services of Virginia is attempting to make available the type of driver education necessary to make the handicapped better drivers. At the present time local high schools around the state offer vocational driver education along with their regular curriculum. Several communities have special driver education programs for the handicapped. Driver education is also offered at one of our detention homes for boys by A.A.A.		11. COST BY TASK \$(000)														
		3. Boys home														
		12. TOTAL COST \$(000)														
		LOCAL SHARE														
		STATE SHARE														
		FEDERAL SHARE														
		TO LOCALITIES														

HIGHWAY SAFETY PROGRAM ANNUAL SUBLEMENT PLAN		1. State of Virginia	2. TITLE Driver Education for the Handicapped				3. NO. DE-73-164 46-73-04-02	4. DATE 4-1-72
5. DRAFTED BY W. L. Howard APPROVED BY John T. Hanna		FISCAL YEAR 19 73		1st Q	2nd Q	3rd Q	4th Q	TOTAL
		1971 FY-2	1972 FY-1					1974 FY+1
								1975 FY+2
6a. EFFECTIVENESS								
6b. OUTPUT								
C								
V								
7. RESP.	8. STD.	9. TASKS & MILESTONES		Feasibil- ity Study		Devel.		Complete
Traffic Records Committee and DMV Driver Education Services	310	5. Develop data system						Develop. Imple.
Woodrow Wilson Rehab. Center	304	6. Equipment (Woodrow Wilson)		Contract Bids		Com- plete Bldg.		Complete
		A. One multi-car-driving range B. Misc. teaching materials C. Simulator (13 unit)		Build 1		Build 20		0
10. DESCRIPTION: The detention home has applied for certification from the state to make available a driver education course to all those eligible. Driver education is also offered at one of the state's rehabilitation centers. The course at Woodrow Wilson started in 1966 with one in- structor, another instructor was hired in 1971 and an additional instructor began in Feb. of 1972. The course consists of approximately 40 hours of classroom discussion, 16 sessions on simulators and approximately 14 hours in-car driving, or longer in some cases. Courses are offered to those handicapped drivers who have never been licensed, and those who have become		11. COST BY TASK \$(000)		48		20		20
		6. A. Driving range (includes land and equipment).		4		2		2
		B. Teaching aids		31		0		0
		C. Simulator						0
12. TOTAL COST \$(000)		LOCAL SHARE						
		STATE SHARE						
		FEDERAL SHARE						
		TO LOCALITIES						

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE	Driver Education for the Handicapped				3. NO.	DE-73-164 46-73-04-03		4. DATE	4-1-72	
5. DRAFTED BY W. L. Howard APPROVED BY John T. Hanna				1971 FY-2	1972 FY-1	1st Q	2nd Q	FISCAL YEAR 1973 3rd Q	4th Q	TOTAL	1974 FY-1	1975 FY+2	
6a. EFFECTIVENESS													
6b. OUTPUT		C											
V													
7. RESP.	8. STD.	9. TASKS & MILESTONES											
Woodrow Wilson Rehab. Center	304	7. Personnel (Woodrow Wilson)											
		A. Instructors											
		B. Secretary											
Woodrow Wilson	304	8. Classroom space (Woodrow Wilson)											
Woodrow Wilson	304	9. Travel (Woodrow Wilson)											
Woodrow Wilson	304	10. Special training for instructor											
Woodrow Wilson	304	11. Maintenance — 3 cars and simulator (Woodrow Wilson)											
10. DESCRIPTION (Cont.) disabled since they received their permits. The course includes all types of adaptation from left foot acceleration to full hand control. Equipment at the center includes: Three cars; twelve Aetna driver simulators with 16 films, instructor's console and digital recorder plus a Porto-Glare visual and reaction tester. Each instructor will serve approximately 125 students per year. The average cost per student is \$96.00 per year. It is anticipated that our needs for fiscal 1973 will include the salaries of the two additional instructors, funds for completion of our multi-car driving range and miscellaneous teaching materials.		11. COST BY TASK \$(000)											
		7. Personnel											
		A. Instructors											
		B. Secretary											
		8. Space											
		9. Travel											
		10. Training											
		11. Maintenance											
		12. TOTAL COST \$(000)											
		LOCAL SHARE											
		STATE SHARE											
		FEDERAL SHARE											
		TO LOCALITIES											

Driver Education for the Handicapped DE-73-164  
46-73-04-04 DESCRIPTION: (Cont.)

Driver education certificates developed by the Driver Education Services and DMV for evaluation of the program will be issued to all handicapped drivers completing state approved driver education. This certificate is explained in more detail in the description of our high school driver education program.

HIGHWAY SAFETY PROGRAM SUBELEMENT SUPPLEMENT		1. State of Virginia	2. TITLE of the Handicapped	Driver Education for 3. No. 46-73-04-05 4. DATE 4-1-72									
		TOTAL	1	2	3	4	5	6	7	8	9	10	11
		TASKS											
13.	D Standard:												
I	Total	104.4			30			22	32	16.8	.5	.6	2.5
S	Federal	52.2			12.2			22	18	0	0	0	0
T	To Localities	0			0			0	0	0	0	0	0
R	Prev. Obligations												
	New Obligations	52.2			12.2			22	18	0	0	0	0
I	Standard:												
B	Total												
U	Federal												
T	To Localities												
I	Prev. Obligations												
O	New Obligations												
N	Standard:												
	Total												
B	Federal												
Y	To Localities												
	Prev. Obligations												
	New Obligations												
S	Standard:												
T	Total												
A	Federal												
N	To Localities												
D	Prev. Obligations												
	New Obligations												
A	Total												
R	Federal												
D	To Localities												
	Prev. Obligations												
14.	Local Costs by Object												
	Salaries												
	Per Diem and Travel												
	Contracts												
	Equipment												
	Supplies												
	Maintenance and Operations												
	Total												

EFFECTIVENESS SUPPLEMENT  
TO THE SUBELEMENT

Title and No. <u>DE-73-164</u> <u>46-73-04-06</u>	Date 4-1-72	<u>19 71</u> FY-2	<u>19 72</u> FY-1	Fiscal Year 73				<u>19 74</u> FY+1	<u>19 75</u> FY+2
				1st Qt.	2nd Qt.	3rd Qt.	4th Qt.	Total	
6a. EFFECTIVENESS									
* Number of accidents caused by the handicapped driver									
1.									
* Number of accidents caused by the handicapped drivers who have completed a special driver education course									
2.									
* Number of deaths among the handicapped drivers who have completed a special driver education course									
3.									
* Amount of economic loss attributed to the handicapped drivers who have completed a special driver education course									
4.									
5.									
* Data will be available upon completion of traffic records system (See SEP 73)									
6.									

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		CITY COUNTY	State of Virginia	2. TITLE Driver Education	Commercial Driver Education			3. NO 46-73-04-01	DE-73-165	4. DATE 4-1-72
5. DRAFTED BY W. L. Howard APPROVED BY J. T. Hanna				1971 FY-2	1972 FY-1	FISCAL YEAR 1973 1st Q 2nd Q 3rd Q 4th Q		TOTAL	1974 FY+1	1975 FY+2
6a. EFFECTIVENESS		SEE EFFECTIVENESS SUPPLEMENT TO THE SUBELEMENT								
6b. OUTPUT		C % of Drivers Completing Commercial Driver Education V No. of Drivers Completing Commercial Driver Education								
7. RESP.	8. STD.	9. TASKS & MILESTONES								
Driver Education Services of the Department of Education	304	1. Commercial Driver Education Schools								
		A. No. of Schools Licensed by State								
		B. No. of Certified Teachers								
		C. No. of Schools Licensed by Department of Prof. & Occ. Regis.								
"	304	Establish Con't.								
Traffic Records Committee	310	Con't.								
10. DESCRIPTION: The long-term goal of the commercial driver education program in Virginia is to make available to those persons -- drivers or learners -- who are unable to attend a school sponsored course, a state approved driver education program. We feel that after the initiation of this or any driver education course, the number of accidents including fatalities, personal injuries and property damage will be reduced.		11. COST BY TASK (\$000)								
		2. Expenses for Board								
		1.5 1 .25 .25 .25								
		TOTAL COST (\$000)								
		LOCAL SHARE								
		STATE SHARE								
		FEDERAL SHARE								
		TO LOCALITIES								

In Virginia anyone under the age of 18 wishing to apply for a driver's license must first complete an approved driver education program. In many cities and counties the local schools are unable to offer driver education to their own students let alone the out of school youth. For this reason many of our cities and counties have contracted with commercial driving schools to make available driver education to everyone. At the present time any commercial school offering driver education to anyone under 18 must have a state approved curriculum. This curriculum is identical to that used in our public schools. The Driver Education Services Division of the State Department of Education presently approves these commercial schools that instruct students under 18. The remaining commercial schools are licensed by the Department of Professional and Occupational Registrations. Their main function is to teach adults how to drive. These adults are usually learners.

The 1968 session of the General Assembly passed Chapter 113, Acts of the Assembly, 1968, thereby creating a Board entitled State Board for Commercial Driver Training Schools. In creating such a Board, the legislature gave the Board the authority to license all commercial driver training schools and, further, gave the Board the authority to establish rules and regulations relating to location, equipment, courses of instruction, instructors, previous courses of instruction, previous records of the school and instructors, financial statements, schedule of fees and charges, character and reputation of the operators, and insurance in such sum and with such provisions as deemed necessary to protect adequately the interests of the public. In addition, the Board may promulgate rules and regulations in such other matters as the Board deems necessary for the protection of the public.

The development of a data system will be handled by the Traffic Records Committee in conjunction with the Driver Education Services Division for more effective evaluation of the Commercial Driver Education Program in the state.



HIGHWAY SAFETY PROGRAM SUBELEMENT SUPPLEMENT		1. State of Virginia		2. TITLE Driver Education		Commercial		3. No. 46-73-04-03		4. DATE 4-1-72		DE-73-165	
		TOTAL		TASKS									
		1	2	3	4	5	6	7	8	9	10		
13.	D Standard: (\$000)												
	I Total	1											
	S Federal	.5											
	T To Localities	0											
	R Prev. Obligations	.5											
	New Obligations	.5											
	I Standard:												
	B Total												
	U Federal												
	T To Localities												
	I Prev. Obligations												
	O New Obligations												
	N Standard:												
14.	T Total												
	B Federal												
	Y To Localities												
	Prev. Obligations												
	New Obligations												
	S Standard:												
	T Total												
	A Federal												
	N To Localities												
	D Prev. Obligations												
	New Obligations												
	A Total												
	R Federal												
D To Localities													
Prev. Obligations													
Local Costs by Object													
Salaries													
Per Diem and Travel													
Contracts													
Equipment													
Supplies													
Maintenance and Operations													
Total													

EFFECTIVENESS SUPPLEMENT  
TO THE SUBELEMENT

Title and No. <u>DE-73-165</u> <u>46-73-04-04</u> Commercial Driver Education	Date 4-1-72	19 71 FY-2	19 72 FY-1	Fiscal Year 1973					19 74 FY+1	19 75 FY+2
				1st Qt.	2nd Qt.	3rd Qt.	4th Qt.	Total		
6a. EFFECTIVENESS										
* Deaths Injuries Economic loss Among those Completing a Commercial Driver Education Course										
1.										
2.										
3.										
4.										
5.										
6.										
* Data will be available upon completion of new state traffic records system.										



HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE Highway Safety Education		3. NO. DE-73-166 46-73-04-02	4. DATE 4-1-72	
5. DRAFTED BY W. L. Howard APPROVED BY J. T. Hama		19 71 FY-2	19 72 FY-1	FISCAL YEAR 19 73		19 74 FY+1	19 75 FY+2
				1st Q	2nd Q	3rd Q	4th Q
							TOTAL
6a. EFFECTIVENESS							
6b. OUTPUT							
7. RESP.	8. STD.	9. TASKS & MILESTONES					
HSD	304	3. Sub-Professional staff A. Conference Coordinator B. Clearinghouse Research Assistant	1	1	1	1	1
HSD	304	4. Secretarial services Steno "B" Parttime - 1500 hours - No. of hours	1	1	1	1	1
			375	375	375	375	1500
assistance for professional, paraprofessional, and technical specialists throughout the state.							
2. An informational clearinghouse through which information and materials will be supplied upon request.							
3. A statewide newsletter and status report of current events in traffic safety-related areas.							
4. Curriculum development for higher education. Suggested courses to be offered through the Institute would include, but not be limited to, the following topics and audiences.							
1. Implementation of the Highway Safety Standards-135 local highway safety commissions.							
11. COST BY TASK							
3. Sub-Professional staff							
A. Conference Coordinator		2.365	2.365	2.365	2.365	2.365	9.460
B. Research Assistant		2.375	2.375	2.375	2.375	2.375	9.5
4. Secretarial services							
Steno "B"		1.2935	1.2935	1.2935	1.2935	1.2935	5.174
Parttime		.8062	.8062	.8062	.8062	.8062	3.225
12. TOTAL COST							
LOCAL SHARE							
STATE SHARE							
FEDERAL SHARE							
TO LOCALITIES							

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE	Highway Safety Education		3. NO. <u>DE-73-166</u> <u>46-73-04-03</u>	4. DATE <u>4-1-72</u>
5. DRAFTED BY W. L. Howard APPROVED BY J. T. Hanna				19_71 FY-2	19_72 FY-1	FISCAL YEAR 19_73 1st Q 2nd Q 3rd Q 4th Q TOTAL	19_74 FY+1 19_75 FY+2
6a. EFFECTIVENESS							
6b. OUTPUT	C						
	V						
7. RESP.	8. STD.	9. TASKS & MILESTONES					
HSD	304	5. University overhead 36% of salaries and wages (except consultants) (36% x 68,801.94)					
HSD	304	6. Travel and per diem					
HSD	304	7. Conference equipment					
HSD	304	8. Clearinghouse furnishings and materials - includes furnishings, books, monographs, periodicals, films tapes, demonstration equipment					
10. DESCRIPTION		11. COST BY TASK					
2. Implementation of the Highway Safety Standards (Basic level) - Civic organizations; local project chairmen; PTA's; community leaders.		5. University overhead	0	0	0	6.1922	27.188
3. Legislation (existing and needed) - State legis- lators.		6. Travel, etc.	0	0	0	1.25	5
4. Police Traffic Services - Enforcement officers.		7. Equipment	0	0	0	.5	0
5. Breathalyzer training - Enforcement officers.		8. Furnishings and materials	0	0	0	2.075	4.1
6. Defensive driving - general public.							
At the present time data for evaluation of this program is being developed by the Traffic Records Committee.		12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES					

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN			1. State of Virginia		2. TITLE		Highway Safety Education		3. NO. DE-73-166 46-73-04-04		4. DATE 4-1-72	
6a. EFFECTIVENESS			5. DRAFTED BY APPROVED BY		W. L. Howard J. T. Hanna		1971 FY-2		FISCAL YEAR 1973		1974 FY+1	
							1st Q		2nd Q		3rd Q	
6b. OUTPUT							1972 FY-1					
7. RESP.			8. STD.		9. TASKS & MILESTONES							
HSD		304			9. Typewriter	0	Bids	1	0	0	1	1
HSD		304			10. Office furniture 3 sets at \$350 each	0	Bids	3	0	0	3	0
HSD		304			11. Printing and Production							
HSD		304			12. Office supplies	0		Deliv.	Deliv.	Publish	3000	3000
HSD		304			13. Newsletter (No. of copies)			Publish	Publish			3000
10.					11. COST BY TASK \$(000)							
					9. Typewriter	0	0	.34	0	0	.34	0
					10. Furniture	0	0	1.05	0	0	1.05	0
					11. Printing and production	0	0	.875	.875	.875	3.5	4
					12. Office supplies	0	0	1	0	0	1	1
					13. Newsletter	0	0	.95	.95	.95	3.8	3.9
												4.0
12.					TOTAL COST \$(000)							
					LOCAL SHARE							
					STATE SHARE							
					FEDERAL SHARE							
					TO LOCALITIES							

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia		2. TITLE Highway Safety Education		3. NO. DE-73-16C 46-73-04-05		4. DATE 4-1-72	
5. DRAFTED BY W. L. Howard APPROVED BY J. T. Hanna		1971 FY-2		1972 FY-1		FISCAL YEAR 1973 1st Q 2nd Q 3rd Q 4th Q TOTAL		1974 FY+1 1975 FY+2	
6a. EFFECTIVENESS									
6b. OUTPUT									
7. RESP. 8. STD. 9. TASKS & MILESTONES									
HSD 304 14. Telephone									
HSD 304 15. Postage									
10.									
11. COST BY TASK									
14. Telephone									
15. Postage									
12. TOTAL COST									
LOCAL SHARE									
STATE SHARE									
FEDERAL SHARE									
TO LOCALITIES									

1. HIGHWAY SAFETY PROGRAM SUBELEMENT SUPPLEMENT		State of Virginia			2. TITLE			Highway Safety Education			3. No. 46-73-04-06			4. DATE 4-1-72		
		TASKS														
		TOTAL	2	3	4	5	6	7	8	9	10	11	12	13	14	15
13.	D Standard:															
I	Total	127.061	48.943	18.96	8.399	24.769	5	2	8.3	.34	1.05	3.5	1	3.8	.6	.4
S	Federal	63.531	24.4715	9.48	4.1995	12.385	2.5	1	4.15	.17	.525	1.75	.5	1.9	.3	.2
T	To Localities	0	0	0	0	0		0	0	0	0	0	0	0	0	0
R	Prev. Obligations															
	New Obligations	63.531	24.4715	9.48	4.1995	12.385	2.5	1	4.15	.17	.525	1.75	.5	1.9	.3	.2
I	Standard:															
B	Total															
U	Federal															
T	To Localities															
I	Prev. Obligations															
O	New Obligations															
N	Standard:															
	Total															
B	Federal															
Y	To Localities															
	Prev. Obligations															
	New Obligations															
S	Standard:															
T	Total															
A	Federal															
N	To Localities															
D	Prev. Obligations															
	New Obligations															
A	Total															
R	Federal															
D	To Localities															
	Prev. Obligations															
14.	Local Costs by Object															
	Salaries															
	Per Diem and Travel															
	Contracts															
	Equipment															
	Supplies															
	Maintenance and Operations															
	Total															



## DRIVER EDUCATION

The driver education program in Virginia has been significantly improved in recent years; the main problem now is that there are not enough driver education teachers in schools and not enough equipment (simulators and multi-car driving ranges). Another problem is that there are too few adult driver education programs to provide education to everyone. During the 1970-71 school year, 73 schools offered adult and out-of-school youth programs, which were completed by 1,303 students. The adult program includes additional training for adults, out-of-school youth, emergency medical services personnel, and motorcyclists. This program is also available to policemen and firemen. The Driver Education Services has completed curriculums for adult and motorcycle safety driver education. It has developed A Suggested Guide for Driver Improvement Programs For Adult and Out-of-School Youth, which is being used statewide. A defensive driving course is also included in the adult program. A curriculum for emergency medical personnel is being developed.

Adult driver education programs are conducted through the public school system and financed by tuition fees. They are conducted upon need. Equipment, classrooms, and personnel from high schools are used for the program. The Traffic Records Committee is developing a traffic records system that will provide the state with the data necessary for effective evaluation of the programs.

### High School Driver Education

In the 1970-71 school year, state-approved driver education programs were offered in all the state's 304 senior high schools and in two of its junior high schools. Of the 78,495 eligible students, 63,087 were offered and completed the program. This was an increase of 9% over the 1969-70 school year. However, these figures show that there were 15,408 eligible students who weren't offered driver education, and they

weren't because of a lack of teachers, simulators, multi-car driving ranges, and other related teaching aids.

The funds being requested for driver education, which amount to over \$700,000 in federal funding, will be used to hire eight additional teachers at the local level, build 8 multi-car driving ranges, and purchase 10-12 unit simulators and other equipment to enable the state to reduce the number of its students not being offered driver education. The Driver Education Services plans to accept the responsibility at the state level for leadership in regard to the direction, coordination, supervision and promotion of quality driver education.

Three assistant supervisors and their secretaries will be funded to assure a well coordinated program throughout the state. These assistants will establish driver improvement schools and adult driver education courses, assist in the handicapped driver education program, and aid the localities in their high school programs.

The projects and programs being utilized to implement the total driver education program are as follows:

- (1) Legislative requirement that all persons between 16 and 18 years of age shall complete a state-approved driver education program consisting of both classroom and in-car instruction to become eligible to apply for a Virginia operator's license.
- (2) Statewide educational television utilizing "Sportsmanlike Driving" series.
- (3) Semester course scheduling -- pilot program.
- (4) Driver Education Certificate, to be issued upon completion of the state-approved driver education program.
- (5) Alcohol countermeasures program.

- (6) Driver education car control program.
- (7) Membership in (VADETS) Virginia Association for Driver and Traffic Safety Education Association.

The Division of Motor Vehicles has designed a data system to analyze the driving history of persons completing a driver education training course and those receiving a driver education certificate to determine the effectiveness of the driver education training course in preparing the individual to be a better, safer driver. The frequency and type of accidents and conviction involvement are analyzed and related to whether or not the individual had a driver training course, and the jurisdiction in which the course was given. This report is sent to all school systems.

The Traffic Records Committee is developing a comprehensive data program that will enable the Highway Safety Division to more effectively evaluate the driver education program. The school system in Virginia continues to update its programs by purchasing simulators, driving ranges and related equipment, and by hiring additional teachers.

The Safety Section of the Virginia Highway Research Council is developing a driver education curriculum unit of instruction designed primarily to inculcate and modify the attitudes of high school students learning to drive. State-approved driver education programs are offered in nonpublic schools without reimbursement from state funds, which is the practice in public schools. Where nonpublic schools wish to offer driver education, all standards of teacher certification, time requirement, course content, and equipment apply and approval must be requested annually from the Driver Education Service. Upon completion of the state-approved program, students are eligible for the Insurance Credit Certificate and the Driver Education Certificate, which would allow them to apply for an operator's license at age 16 or prior to age 18.

Private and parochial school students may be enrolled in the public school driver education program during the summer, and state reimbursement may be claimed by the public school system for these students.

State reimbursement may be claimed for conducting state-approved driver education programs when the programs are approved by the State Department of Education annually, and teachers of classroom and in-car instruction are endorsed in driver education by the Department. Insurance Credit Certificates and Driver Education Certificates cannot be awarded if the program is not approved by the Department. Since July 1, 1968 requirements for an endorsement in driver education have consisted of three semester hours in general safety and three in basic driver education, along with a Virginia teaching certificate.

At present, 80 schools are using the multi-car driving range method and 47 are using simulators in conducting driver education programs.

The Driver Education Service has entered into an agreement with HUMRRO (Human Resources Research Organization) to submit a bid to the National Highway Traffic Safety Administration for developing and evaluating a model curriculum guide in driver education over a period of three years.

#### Commercial Driver Education

The long-term goal of the commercial driver education program in Virginia is to make available a state-approved driver education course to those persons (drivers or learners) unable to attend a school-sponsored course. Upon completion of this or any driver education course, the driver should be less likely to become involved in an accident, and the number of accidents including fatalities, personal injuries, and property damage would be reduced.

The 1968 session of the General Assembly passed Chapter 113, Acts of the Assembly, 1968, thereby creating a board entitled the State Board for Commercial Driver Training Schools. In creating such a board, the legislature gave it authority to license all commercial driver training schools and, further, gave it authority to establish rules and regulations relating to the location, equipment, courses of instruction, instructors, previous courses of instruction, previous records of the schools and instructors, financial statements, schedule of fees and charges, character and reputation of the operators, and insurance in such sum and with such provisions as deemed necessary to protect adequately the interests of the public. In addition, the Board may promulgate rules and regulations in such other matters as it deems necessary for the protection of the public. The development of a data system will be handled by the Traffic Records Committee in conjunction with the Driver Education Service for more effective evaluation of the Commercial Driver Education Programs in the state.

A commercial driver training school conducting driver education programs for anyone under eighteen years of age shall be licensed and certified annually by the Director of Professional and Occupational Registration and also by the Driver Education Service. The same minimum requirements for conducting a state-approved driver education program with respect to time, endorsement, equipment, etc. shall be in effect. The Curriculum Guide for Driver Education in Virginia shall be used by the commercial driving training schools in conducting programs for anyone under eighteen years of age. The commercial schools not teaching anyone under 18 years of age need be licensed only by the Department of Professional and Occupational Registrations.

### Driver Education for the Handicapped

The program for driving education for the handicapped has moved forward in recent years, but needs additional funds and instructors to maintain its pace. High schools around the state offer vocational driver education along with their regular curriculums. Several communities have special driver education programs for the handicapped. Driver education is also offered at one of Virginia's detention homes for boys by the AAA. The detention home has applied for certification from the state to make available a driver education course to all those eligible.

Driver education is also offered at one of the state's rehabilitation centers. The course at Woodrow Wilson started in 1966 with one instructor; another instructor was hired in 1971 and an additional one began work in February 1972. The course consists of approximately 40 hours of classroom discussion, 16 sessions on simulators, and approximately 14 hours in-car driving, or longer in some cases. Courses are offered to new drivers, both physically handicapped and regular, and those who have become disabled since they received their permits. The courses include all types of adaptation from left foot acceleration to full hand control. The average cost per student is \$96 per year. For fiscal 1973, there will be a need for money to pay the salaries of two additional instructors, and funds for the multi-car driving range and miscellaneous teaching material.

### Driver Improvement Schools

In order to reduce the number of accidents including fatalities, personal injuries, and property damage caused by poor driving habits and attitudes, driver improvement schools have been established for habitual traffic law violators referred by the courts for driving courses in lieu of fines or possible revocations of licenses. In most cases, the violator must attend eight hours of classroom instruction during the next year.

The Driver Education Service will attempt to establish schools in as many cities and counties as possible. The equipment and personnel of the high schools will be utilized. One full-time staff member has been hired at the state level for coordination of the program. A driver improvement school has recently been developed in the Fairfax area in conjunction with the ASAP program in order to make available a driver education course to those individuals charged with DWI or traffic law violations. An evaluation of the program will be made upon completion of the new traffic records system being developed by the Traffic Records Committee appointed by the Highway Safety Division. Driver improvement schools are part of the adult driver education program in Virginia and traffic violators attending them remain anonymous.

## VIRGINIA HIGHWAY SAFETY CENTER

Initially, the fundamental concepts of Virginia's proposed Highway Safety Center include:

A Traffic Safety Training Institute to provide both classroom and on-site staff assistance for professional, paraprofessional, and technical specialists throughout the state.

An Information Clearinghouse through which information and materials will be supplied upon request.

A statewide Newsletter and Status Report of current events in traffic safety-related areas.

Curriculum development for higher education.

The Traffic Safety Center will be housed within the School of Community Services and the Department of Administration of Justice and Public Safety at Virginia Commonwealth University. Its director and all professional employees will hold faculty rank and be expected to teach courses insofar as program demands allow. The Center will require one full-time secretarial position.

Traffic Safety Training Institute

(Workshops, Short Courses, Seminars, and Conferences)

In order to increase the ability of all traffic personnel throughout the state as well as that of the general public, it is essential that short-term training be emphasized at the Safety Center. A full-time conference coordinator will be needed to ensure the continuity of planning and direction for all training activities. A portion of the time of a member of the Safety Center's faculty will be devoted to the supervision of this



conference coordinator. Other personnel needs could be handled through the use of student assistants and student interns. Guest lecturers will consist largely of specialists in various aspects of highway safety and will be engaged as required. In this manner, only a modest investment (i.e., honoraria and fees) will be necessary for hiring the professional staff. Thus, top level expertise may be contracted on a short-term basis.

Consulting services will also be offered by the Training Institute in order that local jurisdictions might have professional assistance in determining their training needs and priorities.

Suggested courses to be offered through the Institute would include the following topics and audiences.

TOPICAL CONTENT	AUDIENCE
Implementation of the Highway Safety Standards (technically-oriented)	The one hundred and thirty-five local highway safety commissions
Implementation of the Highway Safety Standards (basic level)	Civil organizations; local project chairman; PTA's; community leaders
Legislation (existing and needed)	State legislators
Police Traffic Services (accident investigation, data analysis, police traffic supervision, police traffic records, traffic law enforcement, preparing court cases, etc.)	Enforcement officers
Breathalyzer Training	Enforcement (policemen, etc.)
Instructor Training	Law enforcement officers responsible for training other personnel
Career Opportunities in Traffic and Highway Safety	High school and community college counselors
Traffic Engineering (traffic control devices, capacity, flow, design, equipment, etc.)	Professional, technical, and para-professional persons responsible for traffic engineering functions in local communities

TOPICAL CONTENT	AUDIENCE
The Traffic Court	Traffic court judges
Motor Fleet Safety	Personnel from trucking companies and transit firms
School Bus Safety	School administrators and school bus drivers
Motor Vehicle Administration	Those responsible for the many activities housed under motor vehicle administration
Legal Aspects of Alcohol and Drug Intoxication	Personnel servicing the criminal justice system (police through judicial) general public
Emergency Vehicle Driving	Enforcement officers; ambulance personnel; rescue squads
Defensive Driving	General public
Defensive Driving (Motorcycles)	All motorcycle operators
Emergency Medical Services	Ambulance attendants, rescue squads, funeral home personnel

#### Resources and Information Clearinghouse

This unit is envisioned as a storehouse or library of highway safety-related literature, materials, audiovisuals, and demonstration equipment. These items would be made available immediately upon request throughout the state at no expense to the recipients, other than a normal handling charge.

The Clearinghouse will be located within the facilities of the Administration of Justice and Public Safety Department at VCU. This location would assure access to both the academic staff and the student population.

A full-time research assistant will be needed to direct the activities of the Clearinghouse. Again, a portion of the time of a member of the Safety Center's faculty will be devoted to the supervision of this research assistant. In addition, the Clearinghouse will offer a unique learning opportunity for program majors to participate as interns and student employees.

### Statewide Newsletter and Status Report

While concentrating on current events in the state of Virginia, this newsletter will encompass applicable trends on the national level. A large portion of the publication would stress programs and activities for individual, organizational, and community involvement which can be effectively carried out without federal funding. New and innovative techniques will be stressed, and successful programs from one area of the state will be publicized so that the entire state can benefit from them. In addition, magazine articles, periodicals, books, etc. of current interest will be featured. An abstract of recent research findings will also be included.

Overall administration and publication of the newsletter will be coordinated with the Clearinghouse. As an example, the newsletter might be used to encourage and assist the utilization of the Clearinghouse materials — i.e., the newsletter could include a calendar of training events or a tear-out form for requesting assistance from the Clearinghouse; on the other hand, the Clearinghouse could provide the newsletter with publications to be abstracted and current research to be noted.

An editorial assistant will be crucial in the compilation and distribution of the newsletter. As in the previous units, staff supervision must come from a member of the professional Traffic Center faculty. Student assistants and student interns will also be used profitably.

### Curriculum Development for Higher Education

#### (Undergraduate Program)

It will be necessary to develop a curriculum leading toward a major in traffic and highway safety. For immediate planning purposes, this can most efficiently be developed within the program entitled Administration of Justice and Public Safety at VCU. Presently, the VCU catalogue lists one academic course (Traffic Planning and

Management) in this field of study. Another course (Legal Aspects of Highway Safety) is scheduled to be taught in the February 1972 semester. It is the intention of the school dean, the department chairman, and program faculty that additional undergraduate highway safety courses be added as staffing allows.

It is extremely important that academically and professionally qualified faculty be employed concurrently with the development of this area of concentration. Should a graduate program be desired, the need for curriculum development and appropriate staffing would become critical. Immediate staffing needs might be met by obtaining the services of one additional faculty member. Engagement of this additional person would enable the present traffic specialist on the faculty to devote sufficient time to the supervision of the previously mentioned activities and curriculum development and classroom instruction activities.

7. WAY-SAFETY PROGRAM 8. SUPPLEMENT PLAN		1. State of Virginia	2. TITLE	DRIVER TESTING AND LICENSING				3. NO. DL-73-161 46-73-05-01	4. DATE 4-1-72			
5. DRAFTED BY A. D. Harvey APPROVED BY J. T. Hanna		FISCAL YEAR 1973		1971 FY-2	1972 FY-1	1st Q	2nd Q	3rd Q	4th Q	TOTAL	1974 FY-1	1975 FY-2
6a. EFFECTIVENESS The number of crashes involving drivers with physical impair- ments and/or skill defects												
6b. OUTPUT												
		C. Percent of total drivers tested										
		V. Total number of drivers licensed										
7. FEED.	8. STD.	9. TASKS & MILESTONES										
DMV	305	1. INSTRUCTION PERMIT AND LICENSING PROGRAM A. Instruction Permits Issued (000)  B. Personnel  1. Supervisors 2. License Examiners 3. Clerks		178  4 21 19	187  4 21 19	49  4 21 19	49  4 21 19	49  4 21 19	49  4 21 19	196  4 21 19	205  4 21 19	214  4 21 19
10. DESCRIPTION Long-term objectives of driver testing and licens- ing by Virginia Division of Motor Vehicle person- nel are to test 100% of applicants for first license and license holders every four years to reduce total crashes, property damage, injuries, and death by (1) preventing unqualified persons from becoming drivers on the highways, and (2) remov- ing drivers who fail to maintain standards of qualification from the highways. 1. This program is designed to initially test and license citizens temporarily in order to allow the citizen to learn proper driving habits and skills under supervision of a licensed driver.		11. COST BY TASK 1. Instruction Permit and Licensing Program (\$000)  12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES		439  10,552 0 10,552 0 0	463  11,139.5 0 11,139 272.5 0	121  2,970 0 2,924 46 0	122  2,975 0 2,929 46 0	122  2,981 0 2,935 46 0	122  2,981.5 0 2,936 45.5 0	487  11,907.5 0 11,724 183.5 0	514  12,527 0 12,318 209 0	540  13,038 0 12,934 104 0

1316

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE DRIVER TESTING AND LICENSING	3. NO. DL-73-161 46-73-05-02	4. DATE 4-1-72
5. DRAFTED BY A. D. Harvey APPROVED BY J. T. Hanna		1971 FY-2	1972 FY-1	FISCAL YEAR 1973 1st Q 2nd Q 3rd Q 4th Q TOTAL	1974 FY+1
6a. EFFECTIVENESS The number of crashes involving drivers with physical impairment and/or skill defects					1975 FY+2
6b. OUTPUT	C Percent of Total Drivers Tested				
	V Total Number of Drivers Licensed				
7. RESP.	8. STD.	9. TASKS & MILESTONES			
DMV	305	2. ORIGINAL LICENSE TESTING AND LICENSE ISSUE PROGRAM A. Original Licenses Issued (000) B. Personnel - State Level 1. Supervisors 2. License Examiners 3. Clerks	202	205	216
			8	8	8
			26	26	26
			25	25	25
			8	8	8
			26	26	26
			25	25	25
10. DESCRIPTION		11. COST BY TASK			
2. This program is designed to test and license those citizens who have never been licensed in Virginia or who let their valid license expire.		2. Original License Testing and License Issue Program (\$000)	582	615	717
		12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES			

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE DRIVER TESTING AND LICENSING				3. No.	DL-73-161 46-73-05-03	4	DATE 4-1-72
5. DRAFTED BY A. D. Harvey APPROVED BY J. T. Hanna		19 71 FY-2	19 72 FY-1	1st Q	2nd Q	3rd Q	4th Q	TOTAL	19 74 FY+1	19 75 FY+2
6a. EFFECTIVENESS	The number of crashes involving drivers with physical impairments and/or skill defects									
6b. OUTPUT	C Percent of Total Drivers Tested V Number of Drivers Tested and Licensed Per Year									
7. RESP.	8. STD.	9. TASKS & MILESTONES								
DMV	305	3. RENEWAL LICENSE AND TESTING PROGRAM								
		A. Renewal Licenses Issued (000)								
		B. Personnel - State Level								
		1. Supervisor								
		2. License Examiners								
		3. Clerks								
		699	710	180	180	180	180	720	731	741
		12	12	12	12	12	12	12	12	12
		103	103	103	103	103	103	103	103	103
		47	47	47	47	47	47	47	47	47
10. DESCRIPTION		11. COST BY TASK \$(000)								
	3. This program is designed to test and re-license those citizens who hold a valid license and are physically and mentally qualified for renewal. This permits periodic screening of all drivers and removal of those no longer qualified for licensing from the highways.	3. Renewal License and Testing Program (\$000)								
		1,611	1,701	447	447	448	448	1,790	1,889	1,984
		12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES								

1310

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE	DRIVER TESTING AND LICENSING				3. NO.	DL-73-161 46-73-05-04	4	DATE	4-1-72
5. DRAFTED BY APPROVED BY		A. D. Harvey J. T. Hanna		1971 FY-2	1972 FY-1	1st Q	2nd Q	3rd Q	4th Q	TOTAL	1974 FY-1	1975 FY-2
6a. EFFECTIVENESS												
6b. OUTPUT												
		C	Percent of Drivers Tested									
		V	Total Number of Drivers Licensed									
7. RESP.	8. STD.	9. TASKS & MILESTONES										
DMV	305	4. RESTRICTED LICENSE TESTING AND LICENSING PROGRAM.										
		A. Restricted License (000)		169	185	50	50	50	51	201	217	233
		B. Personnel - State Level										
		1. Supervisors		5	5	5	5	5	5	5	5	5
		2. License Examiners		2	2	2	2	2	2	2	2	2
		3. Clerks		12	12	12	12	12	12	12	12	12
10. DESCRIPTION		11. COST BY TASK										
4. The program is designed to detect and test and license those citizens who are qualified to drive but only after special restrictions are met, i. e., hand controls.		4. Restricted license testing and license issue. (\$000)		189	200	52	52	53	53	210	222	233
		12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES										





HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN			1. State of Virginia		2. TITLE		DRIVER TESTING AND LICENSING				3. NO.		DL-73-161 46-73-05-06		4. DATE									
5. DRAFTED BY APPROVED BY			A. D. Harvey J. T. Hanna		19 71 FY-2		19 72 FY-1		FISCAL YEAR 19 73		1st Q		2nd Q		3rd Q		4th Q		TOTAL		19 74 FY+1		19 75 FY+2	
6a. EFFECTIVENESS			The number of crashes involving drivers with physical impairments and/or skill defects																					
6b. OUTPUT			C V		Percent of Drivers Under Insurance Requirements Number of Drivers Licensed																			
7. RESP.			8. STD.		9. TASKS & MILESTONES																			
DMV			305		6. FINANCIAL RESPONSIBILITY MONITORING PROGRAM.																			
			A. Number of Suspension Orders Issued for failure to file or maintain proof of Financial Responsibility (000)																					
			B. Personnel - State Level																					
			1. Supervisors																					
			2. Field Inspectors																					
			3. Evaluators																					
			4. Clerks																					
10. DESCRIPTION			11. COST BY TASK \$(000)																					
6. This program monitors those persons who must comply with insurance requirements, suspends and/or reinstates the operating and registration privileges of persons as required. Authorizes reexaminations of driver when insurance requirements are met and examination is required.			6. Financial Responsibility Monitoring Program (\$000)																					
			12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES																					
			</																					



HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE DRIVER TESTING AND LICENSING	3. NO. DL-73-161 46-73-05-38	4. DATE 4-1-72
5. DRAFTED BY A. D. Harvey APPROVED BY J. T. Hanna		10-71 FY-2	10-72 FY-1	FISCAL YEAR 1973 1st Q 2nd Q 3rd Q 4th Q TOTAL	19-74 FY-1 19-75 FY-2
6a. EFFECTIVENESS The number of crashes involving drivers with physical impairments and/or skill defects					
6b. OUTPUT					
C Percent of Total Drivers Tested					
V Number of Drivers Tested and Licensed Per Year					
7. RESP.	8. STD.	9. TASKS & MILESTONES			
DMV	305	8. Conviction Processing Program			
		A. Number of Convictions Processed (000)			
		B. Number of Revocation Orders Issued (000)			
		C. Personnel - State Level			
		1. Supervisors			
		2. Field Inspectors			
		3. Evaluators			
		4. Clerks			
10. DESCRIPTION		11. COST BY TASK			
8. This program identifies citizens whose traffic violation requires mandatory revocation of driving privileges or whose repeated traffic violations require revocation of privileges, issues notices for reexamination or recommends hearing action based on review of citizen's driving record.		8. Conviction Processing Program (\$000)			
		TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES			

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE DRIVER TESTING AND LICENSING	3. NO. DL-73-161 46-73-05-09	4. DA FY 4-1=72	
5. DRAFTED BY A. D. Harvey APPROVED BY J. T. Hanna		1971 FY-2	1972 FY-1	FISCAL YEAR 1973 1st Q 2nd Q 3rd Q 4th Q TOTAL	1974 FY+1	1975 FY+2
6a. EFFECTIVENESS	Percent of Drivers with Repeated Violations after Hearings					
6b. OUTPUT	C	Percent of Total Drivers for Whom Hearings Held				
	V	Total Number of Drivers Licensed				
7. RESP.	8. STD.	9. TASKS & MILESTONES				
DMV	305	9. HEARING PROGRAM				
		A. Number of Formal Hearings Held (000)				
		B. Number of Hearing Suspensions (000)				
		C. Personnel - State Level				
		1	1	1	1	1
		1	1	1	1	1
		6	6	6	6	6
10. DESCRIPTION	11. COST BY TASK \$(000)					
9. This program conducts formal hearings with citizens who are repeatedly involved in accidents or traffic violations of a minor nature.		76	80	21	21	84
						89
						93
		12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES				

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE DRIVER TESTING AND LICENSING		3. NO. DL-73-161 46-73-05-10	4. DATE 4-1-72	5. 1971 FY-2	1972 FY-1	FISCAL YEAR 1973				1974 FY+1	1975 FY+2
5. DRAFTED BY A. D. Harvey APPROVED BY J. T. Hanna				1st Q	2nd Q	3rd Q	4th Q	TOTAL						
6a. EFFECTIVENESS		Percent of Drivers Under Medical Control												
6b. OUTPUT		Percent of Drivers Tested												
V		Total Number Drivers Licensed												
7. RESP.	8. STD.	9. TASKS & MILESTONES												
DMV	305	10. MEDICAL EVALUATION AND CONTROL PROGRAM												
		A. Number of Medical Statements Required (000)												
		B. Number Citizens Suspended (000)												
		C. Personnel - State Level												
		1. Supervisor												
		2. Field Inspector												
		3. Clerks												
10. DESCRIPTION		11. COST BY TASK \$(000)												
10. This program is responsible for investigating and monitoring those persons who must periodically file statements from doctors attesting to their physical and/or mental ability to operate motor vehicles with safety with respect to persons and property or have their privileges suspended.		76	80	21	21	21	21	84	89	93				
		10. Medical Evaluation and Control Program (\$000)												
		12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES												

1. State of Virginia		2. CITY DRIVER TESTING AND LICENSING		3. NO. DL-73-161 46-73-05-11		4. DATE 4-1-72	
5. DRAFTED BY A. D. Harvey		6. APPROVED BY J. T. Hanna		7. FISCAL YEAR 1973		8. 1974	
9. 1971 FY-2		10. 1972 FY-1		11. 1st Q		12. 2nd Q	
13. 3rd Q		14. 4th Q		15. TOTAL		16. 1975	
Percent of Drivers Notified Remaining Violation Free for One Year							
C. Percent Drivers Licensed Receiving Notices							
V. Total Number of Drivers Licensed							
9. TASKS & MILESTONES							
11. PARTICIPATIVE DRIVER TRAINING PROGRAM							
A. Number of Warning Letters Sent (Estimated) (000)		Devel.		12		3	
B. Personnel - State Level							
1. Analyst				3		3	
2. Clerk				3		3	
11. COST BY TASK							
11. Participative Driver Training (\$000)		60		64		16	
12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES							
PERSONNEL							
11. This program is responsible for identifying and notifying those citizens who will have their operating privilege revoked or suspended if additional traffic violations are committed.							

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE	DRIVER TESTING AND LICENSING				3. NO.	DL-73-101 46-73-05-12	4. DATE	4-1-72
5	DRAFTED BY	A. D. Harvey	1971 FY-2	1972 FY-1	1st Q	2nd Q	3rd Q	4th Q	TOTAL	1974 FY-1	1975 FY-2
6a.	EFFECTIVENESS	Time Required to retrieve Driver Information									
6b.	OUTPUT	C. Percent of drivers upon whom records furnished									
		V. Total number of drivers licensed									
7.	RESP.	8. STD.	9. TASKS & MILESTONES								
	PAIV	305	12. DRIVER HISTORY INFORMATION PROGRAM								
			A. Number of Driving Record Transcripts Furnished to State and Local Law Enforcement Agencies (000)	504	555	152	152	153	609	670	757
			B. Number of Driving Record Transcripts Furnished to Insurance Companies and Other Commercial Agencies (000)	856	1,070	334	334	335	1,338	1,672	2,090
			C. Personnel — State Level								
			1. Supervisors	10	10	10	10	10	10	10	10
			2. Clerks	27	27	27	27	27	27	27	27
10.	DESCRIPTION	11. COST BY TASK									
	12. This program provides copies of driving records to law enforcement officials, certain commercial users and individuals and certifies records as required for court use.	12. Driver History Information Program (\$000)	363	363	100	101	101	101	403	426	447
		12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES									



HIGHWAY SAFETY PROGRAM ANNUAL SUBJLEMENT PLAN			1. State of Virginia		2. TITLE		DRIVER TESTING AND LICENSING				3. No.		DL-73-161 46-73-05-13		4		1971 4-1-72							
6			DRAFTED BY A. D. Harvey		APPROVED BY J. T. Hanna		1971 FY-2		1972 FY-1		FISCAL YEAR 1973 1st Q		2nd Q		3rd Q		4th Q		TOTAL		1974 FY-1		1975 FY-2	
6a. EFFECTIVENESS			Number Drivers Adjudged as Habitual Offenders																					
6b. OUTPUT			C Percent of Drivers Meeting Definition of Habitual Offender																					
7. RESP.			V Total Number of Drivers Licensed																					
8. STD.			9. TASKS & MILESTONES																					
305			13. HABITUAL OFFENDER PROGRAM																					
			A. Number of Persons Certified to Courts as Possible Habitual Offenders (000)																					
			B. Number of Citizens Adjudged to be Habitual Offenders by Courts (000)																					
			C. Personnel - State Level																					
			1. Supervisor																					
			2. Clerks																					
10. DESCRIPTION			11. COST BY TASK																					
13. This program identifies those citizens whose driving records contain repeated violations which met the definition of an habitual offender has certified copies of the operating record prepared and furnishes these records to the citizen and to appropriate officials for prosecution as an habitual offender.			13. Habitual Offender (\$000)																					
			12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES																					

122

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia		2. TITLE DRIVER TESTING AND LICENSING		3. NO. DL-73-161 46-73-05-14		4. DATE 4-1-72							
5. DRAFTED BY A. D. Harvey APPROVED BY J. T. Hanna		1971 FY-2		1972 FY-1		FISCAL YEAR 1973 1st Q 2nd Q 3rd Q 4th Q TOTAL				1974 FY+1	1975 FY+2				
6a. EFFECTIVENESS															
6b. OUTPUT		C													
		V													
7. RESP.	8. STD.	9. TASKS & MILESTONES													
DMV	305	14. OVERALL PROGRAM ADMINISTRATION AND MANAGEMENT													
		A. Personnel - State Level													
		1. Administrators													
		2. Department Managers													
		3. Regional Managers													
		4. Assistant Department Managers													
		5. Assistant Regional Managers													
		6. Staff Assistants													
		7. Secretaries													
		8. Branch Managers													
		9. Assistant Branch Managers													
10. DESCRIPTION		11. COST BY TASK													
14. The personnel outlined in this subelement are responsible for the overall administration and management of all programs and projects.		378		1399		105		105		420		444		466	
		12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES													

HIGHWAY SAFETY PROGRAM ANNUAL SUBLEMENT PLAN		1 State of Virginia	2. TITLE DRIVER TESTING AND LICENSING		3. NO. <u>DL-73-161</u> <u>46-73-05-15</u>	4	DATE: <u>4-1-72</u>
5. DRAFTED BY <u>A. D. Harvey</u> APPROVED BY <u>J. T. Hanna</u>		1971 FY-2	1972 FY-1	FISCAL YEAR 1973 1st Q 2nd Q 3rd Q 4th Q	TOTAL	1974 FY+1	1975 FY+2
6a. EFFECTIVENESS							
6b. OUTPUT							
7. RESP.							
8. STD.							
9. TASKS & MILESTONES							
10. DESCRIPTION							
11. COST BY TASK \$(000)							
12. TOTAL COST \$(000)							
13. ELECTRONIC DATA PROCESSING							
14. TOTAL COST \$(000)							
15. ELECTRONIC DATA PROCESSING							
16. TOTAL COST \$(000)							
17. LOCAL SHARE							
18. STATE SHARE							
19. FEDERAL SHARE							
20. TO LOCALITIES							

1. State of Virginia		2. TITLE		3. NO. <u>DL-73-161</u>		4. DATE <u>4-1-72</u>	
5. DRAFTED BY <u>A. D. Harvey</u> APPROVED BY <u>J. T. Hanna</u>		FISCAL YEAR 1973		1st Q		2nd Q	
		3rd Q		4th Q		TOTAL	
		1971 FY-2		1972 FY-1		1974 FY-1	
						1975 FY-2	
6. RECOMMENDATIONS							
7. OUTPUT							
8. TASKS & MILESTONES							
16. Mobile Examining Station Project						Develop Implement	
9. COST BY TASK							
16. Mobile Examining Station Project (\$000)						64 10	
12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES							

HIGHWAY SAFETY PROGRAM ANNUAL SUBLEMENT PLAN		1. State of Virginia	2. TITLE DRIVER RESCUE AND LAW ENFORCE		3 NO. DL-73-161 46-73-05 17	4. DATE 4-1-72
5. DRAFTED BY A. D. Harvey APPROVED BY J. L. H. H.		FISCAL YEAR 1973		1974 FY-1	1975 FY-2	
		1st Q	2nd Q	3rd Q	4th Q	TOTAL
6a. EFFECTIVENESS						
6b. OUTPUT		C				
V						
7. RESP.	8. STD.	9. TASKS & MILESTONES				
DMV	305	17. VISUAL DISPLAY DRIVER TESTING PROJECT (PILC PROJECT)				
10. DESCRIPTION		11. COST BY TASK				
17. This project will study the feasibility of using visual display driver testing devices in place of written examinations in all or selected examining stations; and if feasibility is established, acquire visual display driver testing devices and conduct a pilot operation.		17. Visual Display Driver Testing (5000)				
		12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES				
		65 10				

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE		DRIVER TESTING AND LICENSING		3. NO	DL-73-161 46-73-05-16	4. DATE	4-1-72
5. DRAFTED BY A. D. Harvey APPROVED BY J. T. Hanna		1971 FY-2	1972 FY-1	FISCAL YEAR 1973		4th Q	TOTAL	1974 FY+1	1975 FY+2	
6a. EFFECTIVENESS										
6b. OUTPUT		C								
7. RESP.		8. STD.	9. TASKS & MILESTONES							
DMV	305		18. DRIVER IMPROVEMENT PROJECT		Devel.					
10. DESCRIPTION		11. COST BY TASK								
19. This project will design and implement a Driver Improvement Program in three phases for the Commonwealth of Virginia to be administered by the Division of Motor Vehicles and the Department of Education. The program will consist of sending warning letters to repeat violators, administering hearings, and working with the courts in the development of driver violators' schools for the repeat violator.		18. DRIVER IMPROVEMENT PROJECT (\$000) 402 Federal Funds		96	19	19	19	76	80	84
12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES										

HIGHWAY SAFETY PROGRAM ANNUAL SUBLEMENT PLAN		1. State of Virginia	2. TITLE DRIVER TESTING AND LICENSING				3. NO. 46-73-05-19				4. 10-1-72	
5. DRAFTED BY A. D. Harvey APPROVED BY J. T. Hanna		FISCAL YEAR 19 73		4th Q		TOTAL		1975 FY+2				
6a. EFFECTIVENESS		1971 FY-2		19 72 FY-1		1st Q		2nd Q		3rd Q		
6b. OUTPUT		C		V								
7. RESP.	8. STD.	9. TASKS & MILESTONES		Legis.		Implement						
DMV	305	19. SINGLE DRIVER LICENSE PROJECT										
10. DESCRIPTION		11. COST BY TASK										
20. Subject to passage of enabling legislation this project will implement a single fully classified driver's license to replace the present dual license system of operators and chauffeurs licenses.		19. Single Drivers License (\$000)										
		12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES										

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia		2. TITLE		3. DRIVER TESTING AND LICENSING		3. NO. DL-73-161 46-73-05-20		4. DATE 4-1-72	
5. DRAFTED BY A. D. Harvey APPROVED BY J. T. Hanna		19 71 FY-2		19 72 FY-1		FISCAL YEAR 19 73 1st Q 2nd Q 3rd Q 4th Q		TOTAL		19 74 FY+1 19 75 FY+2	
6a. EFFECTIVENESS											
6b. OUTPUT		C V									
7. RESP.	8. STD.	9. TASKS & MILESTONES		19 71 FY-2		19 72 FY-1		FISCAL YEAR 19 73 1st Q 2nd Q 3rd Q 4th Q		TOTAL	
DMV	305	20. PROOF OF BIRTHDATE AND BIRTHPLACE PROJECT				Legis.		Implement			
10. DESCRIPTION		11. COST BY TASK									
20. Subject to passage of enabling legislation this program will require positive proof of place and date of birth whenever a citizen applies for an original license or an instruction permit. This program will enable us to comply with part of Standard 305 promulgated by the NHTSA.		20. Proof of birthdate and birthplace. (\$000)									
		12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES									



1. State of Virginia		2. TITLE		3. DRIVER TESTING AND LICENSING		4. DL-73-161		5. NO. 16-73-05-21		6. DATE 4-1-72	
5. DEPARTED BY A. D. Harvey		APPROVED BY J. T. Hanna		FISCAL YEAR 1973		1971		1972		1973	
7. TEST.		8. STD.		9. TASKS & MILESTONES		1st Q		2nd Q		3rd Q	
10. OUTPUT		11. % Drivers tested on automated equipment		12. Total number of drivers licensed		1971		1972		1973	
DMV		305		21. Virginia Automated Driver Testing Project		1971		1972		1973	
10. DESCRIPTION		11. COST BY TASK		12. TOTAL COST		1st Q		2nd Q		3rd Q	
21. To develop a fully automated driver testing facility for written examination and road testing on a driving range with automatic scoring of applicants, and to compare the accident and traffic violations of persons tested in non-automated, partially automated, and fully automated testing facilities		21. Automated Driver Testing (\$000)		LOCAL SHARE		1971		1972		1973	
		402 Federal Funds		STATE SHARE		1971		1972		1973	
				FEDERAL SHARE		1971		1972		1973	
				TO LOCALITIES		1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
						1971		1972		1973	
				</							

HIGHWAY SAFETY PROGRAM SUBPLEMENT SUPPLEMENT		1. State of Virginia		2. TITLE and Licensing		Driver Testing		3. No. 46-73-05-22		4. DATE 4-1-12			
		TOTAL		TASKS									
		1	2	3	4	5	6	7	8	9	10		
13.	D Standard: 305												
I	Total \$(000)	487	647	1,790	210	538	1,815	866	958	84	84		
S	Federal	0	0	0	0	0	0	0	0	0	0		
T	To Localities	0	0	0	0	0	0	0	0	0	0		
R	Prev. Obligations	0	0	0	0	0	0	0	0	0	0		
	New Obligations	0	0	0	0	0	0	0	0	0	0		
I	Standard:												
B	Total												
U	Federal												
T	To Localities												
I	Prev. Obligations												
O	New Obligations												
N	Standard:												
	Total												
B	Federal												
Y	To Localities												
	Prev. Obligations												
	New Obligations												
S	Standard:												
T	Total												
A	Federal												
N	To Localities												
D	Prev. Obligations												
	New Obligations												
A	Total												
R	Federal												
D	To Localities												
	Prev. Obligations												
14.	Local Costs by Object												
	Salaries												
	Per Diem and Travel												
	Contracts												
	Equipment												
	Supplies												
	Maintenance and Operations												
	Total												

HIGHWAY SAFETY PROGRAM SUBELEMENT SUPPLEMENT		1. State of Virginia		2. TITLE		Driver Testing and Licensing		3. No. 46-73-05-23		4. DATE 4-1-72		DL-73-161	
		TOTAL		TASKS									
		11	12	13	14	15	16	17	18	19	20	21	
13.	D Standard: 305												
I	Total \$(000)	67	403	34	420	3321	0	0	76	0	0	107.5	
S	Federal	0	0	0	0	0	0	0	76	0	0	107.5	
T	To Localities	0	0	0	0	0	0	0	0	0	0	0	
R	Prev. Obligations	0	0	0	0	0	0	0	0	0	0	0	
	New Obligations	0	0	0	0	0	0	0	76	0	0	107.5	
I	Standard:												
B	Total												
U	Federal												
T	To Localities												
I	Prev. Obligations												
O	New Obligations												
N	Standard:												
	Total												
B	Federal												
Y	To Localities												
	Prev. Obligations												
	New Obligations												
S	Standard:												
T	Total												
A	Federal												
N	To Localities												
D	Prev. Obligations												
	New Obligations												
A	Total												
R	Federal												
D	To Localities												
	Prev. Obligations												
14.	Local Costs by Object												
	Salaries												
	Per Diem and Travel												
	Contracts												
	Equipment												
	Supplies												
	Maintenance and Operations												
	Total												

EFFECTIVENESS SUPPLEMENT  
TO THE SUBELEMENT

Title and No. <u>DL-73-161</u> 46-73-03-24 Driver Testing and Licensing Measures of Effectiveness	Date 4/1/72	1971 FY-2	1972 FY-1	Fiscal Year 1973				1974 FY 1	1975 FY 2
				1st Qt.	2nd Qt.	3rd Qt.	4th Qt.	Total	
6a. EFFECTIVENESS									
Instruction Permit and Testing Number of driver history files established upon issuance of instruction permit.									
1.									
Original License Testing and License Issue Program Number of drivers licensed compared with the total applicants for original license.									
2.									
Renewal License Testing and Licensing Program Number of licenses renewed compared with total applicants for renewal.									
3.									
Restricted License Testing and Licensing Program Number of restricted licenses issued com- pared with total applicants for license.									
4.									
Drivers' Retesting and Licensing Program Number of licenses issued to drivers retested.									
5.									
Financial Responsibility Monitoring Program Number of suspension orders issued to drivers licensed.									
6.									

EFFECTIVENESS SUPPLEMENT  
TO THE SUBELEMENT

Title and No. <u>DL-73-161</u> 46-73-05 25 Driver Testing and Licensing Measures of Effectiveness	Date 4/1/74	1971 FY-2	1972 FY-1	Fiscal Year 1973				1974 FY+1	1975 FY+2
				1st Qt.	2nd Qt.	3rd Qt.	4th Qt.		
6a. EFFECTIVENESS									
Crash Reporting Program Number of drivers and/or owners suspended for failure to prove financial responsibility compared with total crashes reported.									
7.									
Conviction Processing Program Number of drivers convicted whose licenses were suspended or revoked compared with total convictions processed.									
8.									
Hearing Program Number of hearings held compared with total drivers licensed.									
9.									
Medical Evaluation and Control Program Number of persons under medical control compared with total drivers licensed.									
10.									
Participative Driver Training Program Number of drivers receiving warning letters suspended compared with number of drivers receiving warning letters.									
11.									
Driver History Information A. Average time to furnish driving record transcripts to law enforcement agencies. B. Average time to furnish driving record transcripts to insurance companies and other commercial accounts.									
12.									

## DRIVER TESTING AND LICENSING

The long-term objective of the driver testing and licensing programs of the Virginia Division of Motor Vehicles is to test 100% of the applicants for first licenses and license holders every four years to reduce the number of drivers involved in vehicle crashes, and to reduce the property damage, injuries, and deaths caused by highway accidents. The reductions will be accomplished by:

- (1) Preventing unqualified persons from becoming drivers on the highways, and
- (2) by removing from the highways drivers who fail to maintain standards of qualification.

The Division is conducting testing and licensing programs as follows:

- (1) For citizens who have never held a driver's license, passage of an examination on Virginia's motor vehicle laws and a vision test is required prior to the issuance of a temporary license (instruction permit). This permit allows the citizen to learn proper driving habits and skills under the supervision of a licensed driver and is valid only when the holder has a licensed driver occupying a seat by him.
- (2) For citizens who have never held a Virginia driver's license or who have let their license expire, passage of an examination on Virginia motor vehicle laws, a vision test, and a road test is required. However, the road test may be waived if the citizen holds a valid license from a reciprocating state.
- (3) For citizens who are renewing their driver's license, personal appearance is required and the citizen must, at a minimum, pass a

visual examination. Further, depending upon his previous four years' driving history, he may be required to pass a written or oral test for knowledge of traffic regulations and a road test. These tests permit a periodic screening of all drivers and the removal from the highways of those no longer qualified for licensing.

- (4) For citizens who (a) are qualified to operate only under restricted conditions such as the use of hand controls or during daylight hours, and (b) whose driving history has required a mandatory revocation of the driving license or privilege, a complete examination is required prior to the issuance or reissuance of a driver's license.

The Division also monitors those persons whose driving privilege is contingent upon maintaining proof of financial responsibility on file with the Division as a result of a driving history of convictions and/or accident involvement or uninsured vehicle ownership for which an uninsured fee has not been paid. Upon furnishing the required proof of financial responsibility, those citizens who are required to take an examination for a driver's license are authorized to do so.

All accident reports received are processed to identify those citizens who have not complied with the insurance requirements of Virginia. This program

- (1) Suspends the operating and registration privileges of citizens who are not in compliance with the law;
- (2) detects citizens for whom reexamination of driving qualifications may be required prior to the normal four-year cycle; and
- (3) may recommend formal hearing action based on a review of the overall driving record of the citizen, or upon indication of a medical condition.

All convictions received by the Virginia Division of Motor Vehicles are processed to the drivers' records. This program identifies citizens whose traffic violations require the revocation of their driving privileges, issues notices for reexaminations, or recommends hearing actions based on the review of citizen's driving records.

The formal hearings program is used for citizens who are repeatedly involved in accidents or traffic violations of a minor nature. The citizens' driving privileges may be suspended and/or other appropriate actions may be taken as a result of the hearings.

The medical evaluation and control program is responsible for the investigation and monitoring of persons who must periodically file statements from doctors attesting to their physical and/or mental ability to operate motor vehicles with safety or have their privileges suspended. Citizens who are subject to this program are detected by reports from hospitals, reexaminations of a routine nature, notations on crash reports that the citizen "blacked out" or has a physical condition that could cause loss of control of the motor vehicle, and referrals by the courts, friends, and relatives. If necessary, the Division has access to a medical advisory board for professional opinions relating to the medical condition.

In 1972, the Division initiated the first phase of a three phase participative driver training program, which is responsible for identifying and notifying those citizens who will have their operating privileges revoked or suspended if they commit additional traffic violations.

The driver history information program of the Division provides copies of the driving records to law enforcement officials, and certain commercial users, and certifies records as required for court use.



Virginia conducts a habitual offender program that identifies those citizens whose driving records contain repeated violations. Once such a citizen is identified, his driving record is certified and copies furnished to the citizen and to the appropriate officials for prosecution as a habitual offender. If the driver is certified as a habitual offender, his operating privileges are permanently suspended by the courts. However, after ten years have elapsed, he may petition the court for reinstatement.

All the foregoing programs are connected with an extensive electronic data processing program for driver testing and licensing transactions and driver history records.

To improve highway safety by improved testing and licensing of drivers, the Division is requesting federal funds for the following projects:

- (1) Mobile Examining Station Project — This project will determine the feasibility of using mobile examining stations in areas of the state now serviced by traveling examiners, and if feasibility is established, to acquire two mobile examining stations and conduct a pilot operation to verify the practicality and public acceptance of the use of such stations. To develop this project \$64,000 is requested for fiscal year 1974 and an additional \$10,000 to implement the project in 1975.
- (2) Visual Display Driver Testing Project (Pilot Project) — This project will study the feasibility of using visual display driver testing devices in place of written examinations in all or selected examining stations; and if feasibility is established, to acquire visual display driver testing devices and conduct a pilot operation. To develop this project, \$65,000 is requested for fiscal year 1974 and an additional \$10,000 is requested for fiscal year 1975 to implement the project. These devices would

permit greater utilization of existing manpower in light of the increasing number of examinations for driver licenses and examinations required for the renewal of them.

- (3) Virginia Automated Driver Testing Project — This project calls for the development of a fully automated driver testing facility for written examinations and road testing on a driving range with automatic scoring of applicants, and for a comparison of the accidents and traffic violations of persons tested in nonautomated, partly automated, and fully automated testing facilities. To develop this project \$177,500 was requested for fiscal year 1972, and an additional \$107,500 to complete the development and implement the operation was requested for 1973 fiscal year.

This project, when coupled with the visual display driver testing project and the mobile examining station project, will place Virginia in what may be a unique position of being able to compare the results of driver testing in nonautomated, semiautomated, and completely automated environments and the subsequent effects on the person's driving performance.

Maintenance of the records of this type of study and program will necessitate an expanded electronic data processing data base, which is one of the reasons for requesting funds under standard 310 for an expanded data base project.

- (4) Driver Improvement Project — This project will design and implement a three phase program for improving the quality of the drivers on Virginia's highways. Phase I of the program will consist of the issuance of warning letters to drivers to advise them of a deterioration in their driving records. Phase II will consist of an expanded hearing program to counsel drivers

concerning their driving habits. Phase III anticipates a program of participative driver training and education. To develop this program the Division requested \$96,000 for fiscal year 1972; \$76,000 for fiscal year 1973; \$80,000 for fiscal year 1974; and \$84,000 for fiscal year 1975.

This program will also require an expanded electronic data processing data base for which funds are requested under standard 310. Further, through the use of the fully automated examination station with the automated driving range, the participative driver training and education portion of the driver improvement project will be able to obtain an objective measurement of a driver's response to potential accident situations before and after participation in the program.

In addition to the projects for which federal funds have been requested, the Division, subject to the passage of enabling legislation, will implement a single, fully classified driver's license to replace the present dual system of operator's and chauffeur's licenses, and a proof of birth date and birthplace project. The latter program will require positive proof of place and date of birth whenever a citizen applies for an original license or an instruction permit. This program will enable Virginia to comply with part of Standard 305 promulgated by the National Highway Safety Bureau.



HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1 State of Virginia		2 TITLE Codes and Laws		3 NO. CL-73-501 46-73-06-01		4 DATE 4/1/72	
5. DRAFTED BY W. L. Howard APPROVED BY J. T. Hatcher		6a. EFFECTIVENESS See Effectiveness Supplement to the Subelement		6b. OUTPUT		FISCAL YEAR 1973		TOTAL	
						1972 FY-1		1974 FY-1	
						1st Q 2nd Q 3rd Q 4th Q			

\* NA -- Data Not Yet Available



HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia		2. TITLE Codes and Laws		3. NO. <u>CL-73-501</u> <u>46-73-06-02</u>		4 DATE 4/1/72	
5. DRAFTED BY W. L. Howard APPROVED BY J. T. Hanna				1971 FY-2		1972 FY-1		FISCAL YEAR 1973 1st Q 2nd Q 3rd Q 4th Q TOTAL	
6a. EFFECTIVENESS									
6b. OUTPUT		C							
V									
7. RESP.	8. STD.	9. TASKS & MILESTONES							
HSD	306	7. Training (Policemen)		Devel.		Training		Cont'd.	
HSD	306	8. Issuance of Inserts for Updated State Code Provisions (No.)		0		0		Cont'd.	
HSD	306	9. Upgrade and keep in Current Form -- Loose Leaf Fashion -- The Model Traffic Ordinances for Cities and Counties		Upgrade		Upgrade		Upgrade	
HSD	306	10. Program to Establish New Codes and Laws for the State		Survey		Survey		Study	
Traffic Records Committee	306	11. Data System		Reprint		Reprint		Study	
HSD	306	12. Reprint copies of new Virginia traffic laws						Reprint	
10. DESCRIPTION continued. also bring the codes and laws of Virginia into compliance with the Uniform Vehicle Code. Programs under way in our state to provide the above are listed below. We intend to enact new legislation bringing Virginia's codes and laws into compliance with the Uniform Vehicle Code. This legislation was introduced in the 1972 General Assembly which began in January 1972. A contract with a publishing firm is anticipated for the purpose of comparing Virginia's law with the Uniform Vehicle Code, to update the existing code, and publish for distribution model traffic		11. COST BY TASK \$(000)							
		7. Training		30		0		5	
		8. Issuance of Inserts		0		0		5	
		9. Model Traffic Ordinances		0		0		1.25	
		10. New Codes and Laws		0		0		10	
		12. New traffic laws		0		3		0	
		12. TOTAL COST \$(000)							
		LOCAL SHARE							
		STATE SHARE							
		FEDERAL SHARE							
		TO LOCALITIES							

Codes and Laws	<u>CL-73-501</u> 46-73-06-03	DESCRIPTION (Cont. )
----------------	---------------------------------	----------------------

ordinances for Virginia's cities and municipalities. The Highway Safety Division plans to develop a public information program to: familiarize the public with new and existing codes and laws; distribute copies of the state code throughout the state; introduce a training program in order to familiarize policemen with the provisions of the code; issue inserts to all cities and municipalities updating their state code; and begin a program for the development of new codes and laws when the need arises. The HSD will also contract for the reprinting of new Virginia traffic laws as soon as they are passed.

Also under way in Virginia is a new traffic records program that after completion will enable us to effectively evaluate our programs in codes and laws.

A program is also being developed to encourage the adoption of the model traffic ordinances by the cities and counties.

The HSD of Virginia has taken the responsibility of bringing Virginia into compliance with Standard 306 as promulgated by the NHTSA.



1. HIGHWAY SAFETY PROGRAM SUBELEMENT SUPPLEMENT		State of Virginia		2. TITLE Codes and Laws							3. No 46-73-06-04		4. DATE 4-1-72	
		TASKS												
TOTAL		1	2	3	4	5	6	7	8	9	10	11	12	
13.	D Standard: 306													
I	Total \$(000)	0	12	6	6	6	3	20	10	5	20		4	
S	Federal	0	6	3	3	3	1.5	10	5	2.5	10		2	
T	To Localities	0	6	3	3	3	1.5	10	5	2.5	10		2	
R	Prev. Obligations													
	New Obligations	0	6	3	3	3	1.5	10	5	2.5	10		2	
I	Standard:													
B	Total													
U	Federal													
T	To Localities													
I	Prev. Obligations													
O	New Obligations													
N	Standard:													
	Total													
B	Federal													
Y	To Localities													
	Prev. Obligations													
	New Obligations													
S	Standard:													
T	Total													
A	Federal													
N	To Localities													
D	Prev. Obligations													
	New Obligations													
A	Total													
R	Federal													
D	To Localities													
	Prev. Obligations													
14.	Local Costs by Object													
	Salaries													
	Per Diem and Travel													
	Contracts													
	Equipment													
	Supplies													
	Maintenance and Operations													
	Total													

EFFECTIVENESS SUPPLEMENT  
TO THE SUBELEMENT

Title and No. <u>CL-73-501</u> 46-73-06-05 Codes and Laws	Date 4-1-72	Fiscal Year 73				19 71	19 72	19 74	19 75
6a. EFFECTIVENESS									
*Number of Highway and Traffic Safety Statutes Where Virginia Varies From UVC.									
1.									
Number of Localities Not In Compliance With Model Traffic Ordinances for Counties and Cities									
2.									
Number of Accidents Involving Out-of-State Drivers — Rural — Urban						** 1967 10,064 5,710	** 1968 10,864 6,032	** 1970 12,371 7,138	** 1971
3.									
Number of Fatalities Involving Out-of-State Drivers Rural Urban						**1967 183 45	**1968 184 33	**1970 170 37	**1971
4.									
5.									
* This information will be available upon completion of traffic records system. ** Calendar Year									
6.									

## CODES AND LAWS

The two main problem areas with respect to "Codes and Laws" in the state of Virginia traditionally have been a lack of compliance with majority practice as embodied in the Uniform Vehicle Code (UVC) and insufficient dissemination of information. Consequently, many of the state's efforts in recent years have been directed toward improvement of these deficiencies.

With respect to achieving compliance with the UVC, the first phase of the effort has been directed toward determining where discrepancies exist between the UVC and the Code of Virginia (COV). The comparative analysis conducted by the National Committee on Uniform Traffic Laws and Ordinances in 1967 has served as the basic tool of comparison; however, the Highway Safety Division of Virginia recently contracted with the Michie Company (law publishers) to provide an update of the comparison for 1971. The comparison has been completed, and the resulting document has been released to concerned groups and individuals, including the Attorney General's Office, the Office of the Governor, the Chairman and members of the Highway Safety Commission, etc. Additionally, plans are being made to finance an update of the 1971 comparison commensurate with whatever changes result from the 1972 session of the Virginia General Assembly.

The second phase in achieving compliance with the UVC consists of recommending changes in the COV based on the inconsistencies revealed in the comparison. A bill has been introduced in the current session of the General Assembly which would establish a committee whose responsibilities will include studying the comparative analysis and reporting back to the Governor's Office and the General Assembly on its findings and recommendations.

However, implementation of the UVC has not awaited formal action by this committee. A number of legislative proposals have been introduced which would bring

portions of the COV into compliance with the UVC. Examples in the current legislative session include bills which would lower the presumptive level for definition of driving under the influence of alcohol to 0.10%, authorize quantitative breath testing, and allow right turns on red traffic lights provided traffic signs so authorize.

In the context of legislative recommendations, a good deal of basic research has recently been conducted by the Highway Safety Division's research arm -- the Safety Section of the Virginia Highway Research Council. Three reports on this have related to the area of driving under the influence of alcohol: (1) a statutory comparison of COV provisions on this topic with those of the other 49 states and the District of Columbia, (2) a research document supporting the Highway Safety Division's aforementioned legislative recommendations on the presumptive level and the breath test, and (3) a public opinion survey entitled, "Driving Under the Influence of Alcohol: Determining an Optimum Sanction."

In the area of drug usage and its consequent danger when combined with driving, the Council has recently published two reports: (1) a literature survey entitled "The Effects of Drugs on Driving Performance," and (2) a report entitled "Marihuana and Drug Use and Highway Safety -- A Survey of High School Students in Virginia." The UVC will, of course, be utilized in the evaluation of the current Virginia statute. The continuing development of expertise in this area is considered essential given the growth in drug usage among younger members of society, and the preliminary groundwork should enable the researchers to make valid judgments in considering the efficacy of the present statutory provisions.

In addition to the efforts to achieve uniformity with national standards, attempts are being made to achieve consistency within the state by encouraging the counties and municipalities to make their local traffic laws conform to the state code. One method

has been through promulgation and distribution of model traffic ordinances based on the COV. An update commensurate with recent changes in the code is tentatively scheduled.

As previously mentioned, another deficiency has been inadequate dissemination of information concerning the code. One source of complaints has been police officers who had no access to a copy of the motor vehicle laws while on duty in the patrol car. To remedy this situation, 6,000 copies of the Motor Vehicle Laws of Virginia have been distributed to members of the traffic divisions of local police departments during fiscal year 1972. The Highway Safety Division plans to continue this program in light of the overwhelmingly favorable response. Additional plans include the printing and distribution of 1972 traffic law amendments as soon as they are signed into law by the Governor. Newspaper coverage and television and radio spot announcements will be utilized to inform the public of significant changes in traffic safety laws.

In summary, present efforts are based on a recognition of the interstate and international character of motor vehicle travel and the corresponding need for uniformity in traffic laws to reduce the probability of accident occurrence through the inadvertent violation of laws, as well as the need of the public to know those statutes by which their driving conduct is governed.









1. HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		2. State of Virginia		3. NO. TC-73-491 46-73-07-02				4. DATE 4-1-72	
5. DRAFTED BY W. L. Howard APPROVED BY J. T. Hanna		TITLE Traffic Courts		FISCAL YEAR 19 73		TOTAL		19 74 19 75 FY+1 FY+2	
				1st Q 2nd Q 3rd Q 4th Q					
6a. EFFECTIVENESS									
6b. OUTPUT		C							
V									
7. RESP.	8. STD.	9. TASKS & MILESTONES		Study		Design			
Traffic Records Committee	310	6. Data System							
10. DESCRIPTION: cases to cooperate with the state in a program to assure that all traffic courts in the state complement and support local and statewide safety objectives; each traffic court to meet national standards in the administration of justice as outlined in the recommendations by the American Bar Association; and that all convictions for moving violations be reported to the state traffic records system.		11. COST BY TASK \$(000)							
The state plans to conduct additional studies in areas of traffic court needs and make recommendations to local jurisdictions. Funds previously appropriated have allowed a study to		12. TOTAL COST \$(000)							
		LOCAL SHARE							
		STATE SHARE							
		FEDERAL SHARE							
		TO LOCALITIES							

be conducted and established procedures, etc. to have been collected. With additional funds we will be able to develop and print operational and procedural manuals and distribute them to all of the State's traffic courts. We also intend to study and make recommendations on our justice of the peace system throughout Virginia.

It is the intention of the Highway Safety Division of Virginia to aid in the establishment of an annual seminar for traffic court judges. A uniform and appropriate application of traffic laws is a necessity if the laws are to serve the purpose for which they are intended. This would be a training session and would provide those who administer traffic laws with an idea and a mutual feeling of the interpretation of new and revised legislation.

The Division also intends to work with localities in the renovation of courtrooms, to enable the courts to meet certain minimum standards deemed necessary for the efficient administration of justice.

The Traffic Records Committee is in the process of developing a data system that will enable us to evaluate our program more effectively.

Traffic court judges are beginning to work with local school personnel in the development of violator schools for all traffic law violators. The classes are held at the local high school, taught by school personnel and are mandatory for violators or their penalty are invoked.

HIGHWAY SAFETY PROGRAM SUBELEMENT SUPPLEMENT		1. State of Virginia		2. TITLE Traffic Courts							3. No. 46-73-07-04 4. DATE 4-1-72		
		TOTAL		1	2	3	4	5	6	7	8	9	10
		TASKS											
13.	D Standard: 307												
I	Total \$(000)	1183			5	1,150	8	20					
S	Federal	33			5	0	8	20					
T	To Localities	33			5	0	8	20					
R	Prev. Obligations												
	New Obligations	33			5	0	8	20					
I	Standard:												
B	Total												
U	Federal												
T	To Localities												
I	Prev. Obligations												
O	New Obligations												
N	Standard:												
	Total												
B	Federal												
Y	To Localities												
	Prev. Obligations												
	New Obligations												
S	Standard:												
T	Total												
A	Federal												
N	To Localities												
D	Prev. Obligations												
	New Obligations												
A	Total												
R	Federal												
D	To Localities												
	Prev. Obligations												
14.	Local Costs by Object												
	Salaries												
	Per Diem and Travel												
	Contracts												
	Equipment												
	Supplies												
	Maintenance and Operations												
	Total												

EFFECTIVENESS SUPPLEMENT  
TO THE SUBELEMENT

Title and No.	Date	Fiscal Year 73					19 71 FY-2	19 72 FY-1	Fiscal Year 74					19 75 FY+2
		1st Qt.	2nd Qt.	3rd Qt.	4th Qt.	Total			1st Qt.	2nd Qt.	3rd Qt.	4th Qt.	Total	
TC-73-491 46-73-07-05 Traffic Courts	4-1-72													
6a. EFFECTIVENESS														
* Number of accidents among those drivers who have had a previous traffic law violation.														
1.														
* Number of fatalities among those drivers who have had a previous traffic law violation.														
2.														
* Economic loss among those drivers involved in an accident who have had a previous traffic law violation.														
3.														
* Number of repeat traffic law violators														
4.														
5.														
* Data will be available upon completion of traffic records system.														
6.														

## TRAFFIC COURTS

Basic to any discussion of the Virginia traffic court system is a general understanding of its structure. In general, the majority of traffic offenders enter the traffic court system in a "court not of record", which is a court having jurisdiction limited to claims of \$3,000 or less and to trials of misdemeanors (most traffic offenses being misdemeanors). From that point, appeals may proceed to the circuit court level, and, in a few instances, to the Virginia Supreme Court of Appeals. While this analysis is a bit oversimplified, it suffices for purposes of discussion due to the fact that the majority of offenses are disposed of at the lowest level (the court not of record). Consequently, it is this court that potentially has the greatest impact on the bulk of traffic offenders.

In recognition of the importance of a viable traffic law system in achieving the deterrence of behavior involving risk to the motoring public, a good deal of critical analysis is being directed toward the Virginia traffic court system. The first phase of the analysis has consisted of a contract between the Highway Safety Division and Peat, Marwick, Mitchell and Co. (consultants) to study the Virginia traffic court system in terms of its impact on highway safety and to determine the degree of compliance with the NHTSA standards dealing with traffic courts. A number of the study's recommendations have been acted upon: (1) Perhaps the major recommendation of the study was the suggestion that a standardized administrative procedures manual be developed for the use of the lower courts. While the Supreme Court has promulgated rules of procedure for other courts, as yet it has not promulgated rules for the courts not of record. There is, however, a degree of uniformity among local courts due to the fact that a committee of judges proposed rules some years ago, many of which were adopted by the courts. Nevertheless, the study noted that there was little standardization of approach among the courts.

To rectify the situation, a committee has been appointed by Chief Justice Snead of the Virginia Supreme Court to develop such a manual. The committee is headed by the Honorable W. H. Overby, Judge of Campbell County Court, and composed of judges, members of the Attorney General's staff, and a professional staff of consultants consisting of practicing attorneys, law professors, etc. The manual is expected to cover procedures for criminal courts and juvenile courts as well as traffic courts. Its funding will be provided from both highway safety funds and a LEAA grant. Completion of the manual is contemplated for 1972. It is expected that the availability of this manual will be of substantial benefit to traffic court judges in the operation of their courts, particularly to the newer judges, as well as contributing to the overall image of the system in the eyes of the public by promoting uniform treatment within the state regardless of the locality wherein the offense occurs. (2) Related to the goal of improving the image of the court is the question of the adequacy of court facilities. The study found that a number of the courts visited were operating under near deplorable conditions. Given the importance of having the proper indicia of authority to administration of justice, the Highway Safety Division has initiated a court restoration project to enable the courts to meet certain minimum standards deemed necessary in a court of law for the efficient administration of justice. Courts scheduled for restoration in the near future include those of Patrick, Wise, and Franklin Counties. (3) Two of the study's recommendations related to the present traffic records system in terms of its inability to provide quick and efficient access to driver record information and the inadequacy of current statistical data. The problems with the present traffic records system stem partly from the fact that the conversion from manual to automated record keeping has largely proceeded on a one-to-one basis, resulting in underutilization of existing equipment, inadequate

interfacing between competing data systems, duplicative efforts, and slow, costly data retrieval. In an effort to reach a solution, a traffic records committee has been formed, consisting of representatives from the Highway Safety Division, the Division of Motor Vehicles, the Department of Highways, the State Police, the Division of Automated Data Processing, the Driver Education Services, the Department of Health, and personnel from various local police departments. A subcommittee thereof is currently engaged in a feasibility study to identify statewide needs for data output. Completion of this first phase is projected for the end of fiscal year 1972; the design and operating phases are expected to then follow.

Finally, there always exists the need for increased opportunities for exchanges between judicial personnel. An annual seminar is planned in order to provide additional training for judges, as well as to promote an interchange of ideas as to the proper administration of justice and interpretation of existing and new legislation.





HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE Alcohol and Drugs	3. NO. AL-73-471 45-73-53-01	4. DATE 4/1/72
5. DRAFTED BY W. L. Howard APPROVED BY J. T. Hanna		1971 FY-2	1972 FY-1	FISCAL YEAR 1973 1st Q 2nd Q 3rd Q 4th Q TOTAL	1974 1st Q
6a. EFFECTIVENESS See Effectiveness Supplement to the Subelement					
6b. OUTPUT		C % of those arrested that have been drinking			
		V Number of those arrested that have been drinking			
7. RESP.	8. STD.	9. TASKS & MILESTONES			
HSD	308	1. Legislation lowering BAC from 0.15% to 0.10%	Passed		
HSD	308	2. Legislation allowing the use of a breath test for presumptive evidence of driving under the influence	Passed		
A. Locality	308	3. Personnel (ongoing program)			
B. State		A. Policemen (working with breath tests)	0		500
C. Health Dept.		B. Secretaries (part-time)	1	1	1
		C. State medical examiner, administrators, and support personnel			
10. DESCRIPTION		11. COST BY TASK \$(000)			
A major problem facing us today is that of the drinking driver. Statistics indicate that more than fifty percent of all fatal accidents can be attributed to alcohol.		3. Personnel			
In Virginia, the State Police reported, in 1970 31.4 % of all fatal crashes involved drinking drivers. In 1970 8.0% of the drivers in all crashes and 22.7% involved in fatal crashes were known to have been drinking. In rural areas, involvement was 9.6% in all crashes and 22.4% in fatal ones. The State Police, however, state that these figures do not indicate the true		A. Policemen	30	10.0	20.0
		B. Secretary	0	.625	3
		C. State personnel	89	25.0	120
		(No federal funds requested)			
		12 TOTAL COST	318.5	367.63	606.2
		LOCAL SHARE	59.6	10.0	20.0
		STATE SHARE	217.0	71.88	323.0
		FEDERAL SHARE	41.875	285.75	263.2
		TO LOCALITIES	2.875	36.4	222.4



HIGHWAY SAFETY PROGRAM ANNUAL SUPPLEMENT PLAN		1. State of Virginia		2. TITLE Alcohol and Drugs		3. NO. 46-73-08 -02		4. DATE 4-1-72	
		5. DRAFTED BY W. L. Howard APPROVED BY J. T. Hanna		FISCAL YEAR 1973					
				1971 FY-2	1972 FY-1	1st Q	2nd Q	3rd Q	4th Q TOTAL
6a. EFFECTIVENESS		C	V						
6b. OUTPUT									
7. RESP.	8. STD.	9. TASKS & MILESTONES							
HSD	308	4. Equipment							
		A. Breath test devices \$300 each							
		B. Preliminary breath test devices \$.35 each							
		C. Post cards for PBT devices							
		D. Mobile trailer \$23,000 equipped							
		E. Video cameras \$1200 each							
		F. Movie cameras (8mm) \$100 each							
		G. Projectors \$100 each (8mm super)							
		H. 8mm film \$3 each							
		50,000	2	Bids	Purchase	200			200
		50,000	10,000	0	0	0	0	0	10,000
		1	0	0	0	0	0	0	0
		20	20	Bids	40	40	40	40	50
		5	5	Bids	20	20	20	20	50
		5	5	Bids	20	20	20	20	50
		1,000	1,000	2,000					2,000
									3,000
									4,000
10. DESCRIPTION continued.		11. COST BY TASK \$(000)							
picture since intoxication is not always reported when there does not exist enough legal evidence to justify criminal prosecution. In 1968 there were 1,218 highway fatalities of which 568, or 17%, were driver fatalities. 400, or 70% of the driver fatalities were tested for alcohol with 61% having a positive test of .10% or above. In 1970 Virginia registered 1,231 fatalities of which 630 were drivers. 303, or 48%, of these drivers were tested for alcohol with 183, or 60%, of them having a positive test.		4. Equipment							
		71.5	30.5	6	232	0			238
		12. TOTAL COST \$(000) LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES							
		130.5							



HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN			1. State of Virginia		2. TITLE Alcohol and Drugs				3. NO. AL-73-471 46-73-03-04		4. DATE 4-1-72	
5. DRAFTED BY W. L. Howard APPROVED BY J. T. Hanna					1971 FY-2	1972 FY-1	FISCAL YEAR 1973			1974 FY+1	1975 FY+2	
6a. EFFECTIVENESS							1st Q	2nd Q	3rd Q	4th Q	TOTAL	
6b. OUTPUT			C									
			V									
7. RESP.	8. STD.	9. TASKS & MILESTONES										
HSD	308	9. Narcotics and drug abuse										
HSD Traffic Records Committee	310	10. Computer program for preliminary breath test										
	310	11. Data system										
		12. Local alcohol projects (metropolitan areas)										
10. DESCRIPTION continued.												
(2) The mandatory twelve-month license suspension for all DWI convictions leads many prosecutors and judges to lower the charge to impaired or reckless driving, offenses which allow the court's discretion in the length of license suspension.												
(3) Research shows that Virginia's presumptive levels of intoxication are unrealistic. Legislation has been introduced in our 1972 General Assembly to lower the presumptive level for definition of driving under the influence of alcohol from 0.15% to 0.10% by weight of alcohol in the blood												
		11. COST BY TASK \$(000)										
		9. Narcotics and drug abuse										
		10. Computer program for preliminary breath test										
		11. Data system										
		12. Local alcohol projects										
		12. TOTAL COST \$(000)										
		LOCAL SHARE										
		STATE SHARE										
		FEDERAL SHARE										
		TO LOCALITIES										
		40										
		Program										
		1. 129										
		2										
		Cost shown in SEP 310										
		40.8										
		20										
		20										
		80										
		100										
		150										
		40										
		2										
		.5										
		5										

Alcohol and Drugs AL-73-471  
46-73-08-05

DESCRIPTION: (Cont.)

and also permit the use of breath tests in addition to chemical tests of the blood for presumptive evidence of driving under the influence.

In our last General Assembly, a bill was passed allowing the use of preliminary breath tests as a screening device for all drivers stopped because of a suspicion of driving under the influence. In addition, we plan to work with local police for the purpose of sampling the blood of every driver involved in a fatal accident. In 1970 only 48% of the drivers killed in fatal motor vehicle accidents were tested for BAC. This is a decrease of 14% from 1969.

The Highway Safety Division will order sufficient quantity of breath testing devices and train policemen in their use if the "bill" passes. We will continue to develop and implement an alcohol countermeasures indoctrination program for all policemen. The purpose of this program will be to familiarize all law enforcement personnel with the problems presented by drinking drivers and pedestrians.

Virginia has also received a 3½ year demonstration program, the Fairfax Alcohol Safety Action Project, paid for by the federal government under contract with the Department of Transportation's Office of Alcohol Countermeasures, as part of a broad national alcohol countermeasures program. The ASAP activities in four specific countermeasure areas will (1) assist the police in apprehending problem drinking drivers; (2) offer the courts new services for pre-trial investigation; (3) develop a new comprehensive system for treatment and rehabilitation; and (4) undertake a program to change public attitudes toward the problem drinking driver. It is anticipated that similar programs, on a smaller scale, will be started in 4 or 5 of the larger metropolitan areas around the state. Video and movie cameras will be purchased to assist the police departments and state police with DWI cases. They will be used to photograph subjects charged with DWI and the film utilized as evidence.

With the establishment of the Governor's Council on Narcotics and Drug Abuse, the state of Virginia plans to completely survey the area of drugs and make recommendations accordingly.

A data program has been developed by the Data Section of the Virginia Highway Research Council for the evaluation of the preliminary breath test devices. The Traffic Records Committee has completed a feasibility study on traffic records in Virginia and is now in the process of developing a traffic records system for Virginia that will enable us to evaluate our entire alcohol and drug programs more effectively.

HIGHWAY SAFETY PROGRAM SUBELEMENT SUPPLEMENT		1. State of Virginia		2. TITLE Alcohol and Drugs										3. No. 46-73-08-06 4. DATE 4/1/72		AL-73-471
		TOTAL		1	2	3	4	5	6	7	8	9	10	11	12	
		TASKS														
13.	D Standard: 308															
I	Total	682.9				142.5	238	20.4	145	15		40	2		80	
S	Federal	355.4				0	238	20.4		15		40	2		40	
T	To Localities	298.4				0	238	20.4							40	
R	Prev. Obligations															
	New Obligations	355.4				0	238	20.4		15		40	2		40	
I	Standard:															
B	Total															
U	Federal															
T	To Localities															
I	Prev. Obligations															
O	New Obligations															
N	Standard:															
	Total															
B	Federal															
Y	To Localities															
	Prev. Obligations															
	New Obligations															
S	Standard:															
T	Total															
A	Federal															
N	To Localities															
D	Prev. Obligations															
	New Obligations															
A	Total															
R	Federal															
D	To Localities															
	Prev. Obligations															
14.	Local Costs by Object															
	Salaries															
	Per Diem and Travel															
	Contracts															
	Equipment															
	Supplies															
	Maintenance and Operations															

EFFECTIVENESS SUPPLEMENT  
TO THE SUBELEMENT

Title and No. <u>AL-73-471</u> 46-73-08-07 Alcohol and Drugs	Date 4-1-72	19 67 FY-2	19 68 FY-1	Fiscal Year 69					1970 FY+1	19 71 FY+2
				1st Qt.	2nd Qt.	3rd Qt.	4th Qt.	Total		
6a. EFFECTIVENESS										
Crashes involving drinking drivers										
Urban		*7,952	*8,182					*8,804	*8,399	8,000
Rural		8,889	9,472					10,337	10,189	10,000
1.										
Fatal crashes involving alcohol										
Urban		* 96	* 99					* 92	*92	70
Rural		278	237					291	240	200
2.										
3.										
4.										
5.										
* These figures do not indicate the true picture since intoxication is not always reported when there does not exist enough legal evidence to justify prosecution.										
** Data for FY 71, 72, 73, 74, and 75 are not available.										
6.										



## ALCOHOL AND DRUGS

The Commonwealth of Virginia has long recognized that the drinking driver represents a serious threat to safety on the highway. Though statistically a small percentage of drivers, these drunken drivers annually cause 50% of the state's highway fatalities. For example, in 1970 alcohol contributed to the deaths of over 340 drivers on the Commonwealth's roads and a total of 19,000 crashes. But the Virginia Department of State Police, compilers of the statistics, are quick to point out that the figures do not indicate the true numbers since intoxication is frequently unreported when there does not exist sufficient evidence to justify prosecution.

Administrators in Virginia who recognize the need to reduce the annual highway death toll feel that the drinking driver problem is particularly amenable to state governmental initiatives through the legislative, administrative and judicial branches. Sociologists also agree that the control of the drinking driver is perceived by the public as a legal or law enforcement problem rather than a medical one. Whether that particular attitude is correct or not, it seems clear that the public will readily accept countermeasures designed to protect them from the drinking driver.

The following information should provide insight into the current parameters of the driving while intoxicated (DWI) problem and the practical response of law enforcement agencies. (See Exhibits 37 and 38.)

## EXHIBIT 37

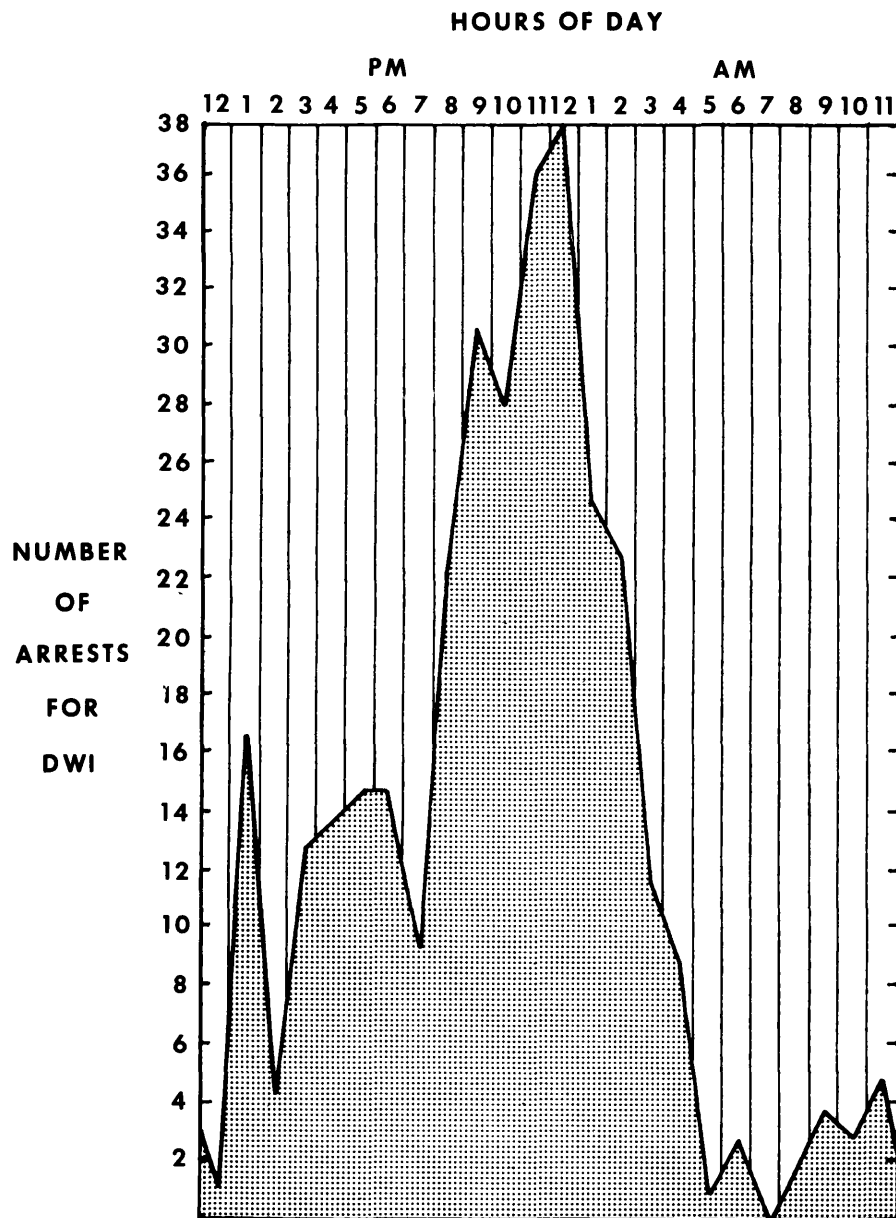
## VIRGINIA CRASH FACTS

Summary of Facts	Year		
	1968	1969	1970
Total number of highway fatalities	1,218	1,304	1,231
Driver Fatalities	568 (47%)	583 (45)	630 (51%)
Driver fatalities who were tested for alcohol	400 (70%)	363 (62%)	303 (48%)
Positive tests (indicating presence of alcohol) of driver fatalities	242 (61%)	209 (58%)	183 (60%)
Positive tests at or above .10% presumptive level of intoxication of driver fatalities	202 (83%)	184 (88%)	147 (80%)
Positive tests at or above .15% presumptive level of intoxication of driver fatalities	158 (65%)	123 (59%)	110 (60%)
Positive tests of male driver fatalities		197	
Positive tests for female driver fatalities		7	
Positive tests of fatalities between the ages of 16 to 24		88	
Total number of blood tests given to suspected DWI's	6,491	7,037	7,230
Number of blood tests over .10% presumptive level of intoxication	6,329 (98%)	6,840 (75%)	7,006 (97%)
Number of blood tests over .15% presumptive level of intoxication	5,604 (85%)	6,066 (86%)	6,078 (84%)
Economic loss (estimated)	\$245,000,000	\$265,000,000	\$270,000,000

(Statistics for positive tests broken down between male and female, age groups, and time periods are not readily available in Virginia for 1968 and 1970. From Virginia Department of Health, Office of the Chief Medical Examiner, September 15, 1971.)

## EXHIBIT 38

DRIVING WHILE INTOXICATED ARRESTS  
(From 254 Virginia Traffic Safety News,  
August 1970) p. 1.



Both because of the gravity of the drinking driver problem and the perceived efficacy of administrative solutions, the Highway Safety Division intends to make the reduction of alcohol and drug related accidents its number one program for fiscal year 1973.

Implicit in any decision to wage a full-scale attack on one section of a multi-faceted problem is a realization that historical approaches have not worked. In most cases the "solutions" have tended to be either misguided or inadequate in scope or practical effect.

The traditional public information campaign designed to inform the general public of the too often tragic results of mixing drinking with driving have focused on a total prohibition of all drinking by drivers. The typical "if you drink, don't drive" slogan is familiar to all. The public, however, has refused to believe such blanket prohibitions. Too often a citizen has had "a few drinks" and driven without either ill effect or accident. In short, the lack of congruence between the enunciated doctrine and the facts of driving have succeeded in undermining its effect. So any highway safety program aimed at the drinking driver must overcome a credibility gap fostered by the earlier misguided campaign.

Punitive legal sanctions have also played a major role in the effort to reduce the human and property costs of the drinking driver. Probably the most significant legislative efforts dealing with the safety problem of alcohol-related accidents are the use of presumptive levels to determine intoxication and the use of chemical tests to determine a driver's blood alcohol level. Virginia initially adopted the liberal standard of .15% weight of alcohol in the accused's blood as raising a presumption of intoxication. Virginia also chose to rely solely on the blood test, a method

particularly fraught with practical administrative difficulties. In order to combat driver refusals to take chemical tests after the conviction efficiency was quickly proved, most states enacted implied consent statutes. Virginia's statute requires drivers as a condition to using the highways to submit to a chemical test. Unwarranted refusal results in a separate penalty. In practice, however, these seemingly logical legal countermeasures have not notably decreased the safety problem caused by the drinking driver.

Earlier efforts to control the drinking driver were also hampered by a lack of unanimity among officials as to the appropriate means-ends relationship. This conflict was heightened by the incomplete and conflicting viewpoints of researchers as to the underlying scientific basis for legislation. Some scientists felt that evidence linking drinking drivers with highway accidents was inconclusive at best. Others were unconvinced as to the efficiency and thus utility of any chemical test means of determining intoxication. Such vacillation in the scientific field had the effect of freezing any comprehensive all-out attack on the drinking driver. The lack of clear-cut, agreed upon bases for strict legislation hampered the necessary widespread public acceptance which is so often the spur to political action. Too frequently, politicians were wary of "going out on a limb" to support measures viewed as threatening by many of their constituents.

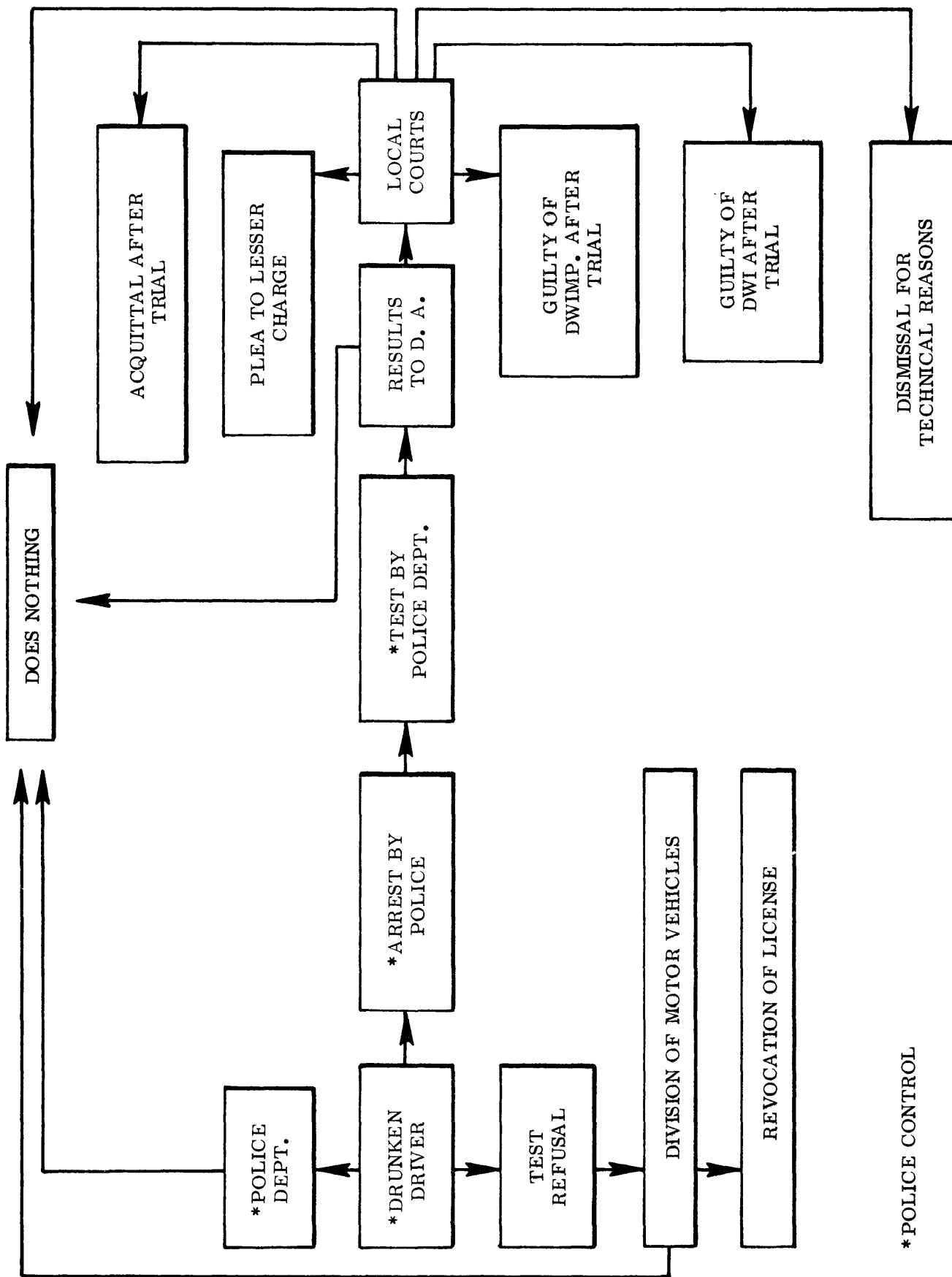
A further inadequacy of the traditional method of dealing with the drinking driver was a major allocation of the problem solving function to the private sector. Such organizations as the American Automobile Association and the Association of Insurance Agents normally handled the brunt of the public information and lobbying efforts. Their performance was unfortunately strictly circumscribed by budget requirements, proliferation of other duties, and a frequently obscured conflict of

interest problem. For example, liquor lobbies frequently give lip service to measures designed to protect the law-abiding user of the highways, but behind the scenes emasculated strictly drafted legislation.

Researchers have also commented frequently on the alleged failure of the law enforcement branch to adequately enforce the existing Code provisions pertinent to the drunken driver. They reason that even if the laws are perfectly congruent with the facts the system will inevitably break down from failure to uniformly apply sanctions. Research has shown that frequently charges are reduced. Even if selective nonenforcement is not rampant in a given area, attitude surveys have shown that the citizen-driver believes one can frequently "fix" drunken driving charges. Exhibit 39 shows the many paths a drunken driver may follow through the legal system in Virginia.

An understanding of the failure of former programs designed to alleviate the threat of the drinking driver is necessary to a formulation of new countermeasures. Using the past as a guideline for change, Virginia has initiated numerous programs to reverse the increasing toll of the drunken driver. Though Virginia's program draws on experience for guidance, it does not rest entirely on the mere updating of old methods. On the contrary, steps are under development which may add a significant new dimension to the range of possible solutions.

EXHIBIT 39  
PROCESSING OF DWI'S



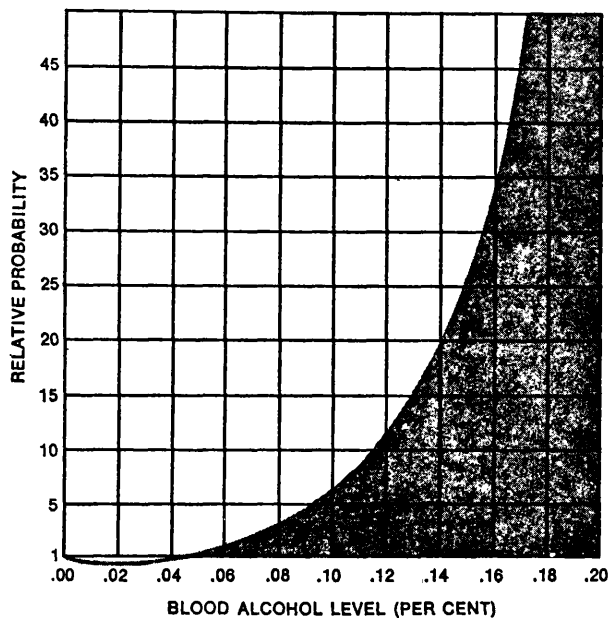
### Current Initiatives

Virginia's highway safety program related to legislative proposals has sought to eliminate existing difficulties in the Code's drunk driving provisions. The early history of the promulgation of "presumptive statutes" was marked by an intuition that the constituency of most legislators knew little about chemical tests to determine intoxication. Public officials, including legislators, public administrators, prosecutors and judges, all were wary of using such a new, seemingly absolute weapon against the drunken driver. So to be completely fair and in order to gain initial acceptance, the very liberal figure of 0.15% was adopted by Virginia. The second reason that the generous 0.15% level was adopted was that the experimentation used to arrive at that level relied primarily on laboratory psychophysical tests. More recently, in an attempt to simulate the driving task, scientists have used alcohol impaired drivers on obstacle courses. The results of the more modern studies have shown that no one is fit to drive a motor vehicle when he has a 0.10% blood alcohol level and that a 0.15% level leaves too many potential accident generators on the highway. An accurate statistical method for determining the precise danger of the drinking driver has yet to be developed. But data are now being obtained in studies which take a random sample of drivers involved in accidents and determine the percentage who have been drinking. These investigations, using scientific controls, have resulted in the graph, Exhibit 40, showing the relative probability of causing an accident in relation to blood alcohol level.

With the weight of evidence against the liberal 0.15% presumption of intoxication, Virginia continues to ignore the nationally recommended 0.10% level. The Virginia Highway Safety Division has made the lowering of the presumptive level in Virginia to .10% a major goal of its legislative program.



RELATIVE PROBABILITY OF CAUSING AN ACCIDENT  
IN RELATION TO BLOOD ALCOHOL LEVEL  
(From Borkenstein, R. F., et al., "The Role of the Drinking  
Driver in Traffic Accidents," Department of Police  
Administration, Indiana University, 1964.)



The other element of the 1972 Highway Safety Division legislative program involves increasing the identifiability of the drinking driver by use of the breath test in addition to chemical tests of the blood. Although medical evidence shows that driving behavior deteriorates at even low blood alcohol readings (0.05% - 0.10%) many drivers can disguise outward signs of intoxication at that level. Police officers have long been aware that even though some drinking drivers appear sober their lowered ability to safely operate a vehicle warrants their removal from the road. For this reason the likelihood of identifying an unsafe drinking driver by relying on outward manifestations of intoxication is slight. Virginia remains, however, the only state relying exclusively on the blood test to measure the level of alcohol. After years of experience

it seems clear that Virginia's highway safety program has been severely hampered by sole reliance on the blood test to determine the degree of intoxication of arrested DWI's. The procedural intricacies outlined in the Code for drawing the blood sample have been a trap for the unwary for many prosecutors. The disadvantages include the necessity of giving the blood test within two hours of the offense, the possibility of civil liability, the complicated and burdensome labeling and handling procedures, the psychological aversion to the blood test, and the possibility that injured drivers may not be able to supply a sample. In summary, a percentage of persons who drive with a blood alcohol level above the presumed level of intoxication may be able to escape conviction because of the lack of alternate means to determine the blood alcohol level. If the number of identifiable drinking drivers is increased by the use of alternate chemical tests it might be expected that apprehension rates would increase. Such a result can be viewed as a significant step in improving highway safety in Virginia.

Prior to these two major legislative thrusts, the Highway Safety Division sought to increase public awareness and acceptability by two compromise measures. The first was adoption by the Virginia General Assembly, with Highway Safety Division endorsement, of a law compelling police officers to offer pre-arrest screening breath tests during the apprehension stage. The statute is designed solely to give the police officer some objective evidence upon which to base his decision as to arrest or not arrest. The driver must be informed that he is under no compulsion to take the test, that no penalty will accrue if he fails to take the test, and if he does take the test the results may not be used against him. The Virginia Highway Research Council, under the sponsorship of the Highway Safety Division, is conducting a study of the practical effectiveness of these pre-screening breath devices. This study involves statistical analyses of questionnaires designed to elicit answers to such questions as frequency

of alcohol use, reliability, accuracy, confidence in use; in general, a determination as to its practical everyday effect in helping the policeman combat the drunken driver.

In anticipation of widespread use of the quantitative breath tests recommended in the major legislative proposals, the Highway Safety Division has trained experts in the use of breath test devices. These trained operators travel throughout the state demonstrating the use and efficiency of the devices to civic groups, legislators, and general citizens. Their efforts should, at the least, increase the public's knowledge and make ultimate public acceptability much easier. These personnel will also be instrumental in the implementation of a major police training program in the use of quantitative breath tests if legislation requiring such tests is passed. Of course, purchases of these breath test devices will be required to provide all localities with the equipment. Additional hardware purchases by the state in the coming fiscal year will include mobile trailers with exhibits about the drinking driver and video cameras and projectors to be used in filming psychomotor tests of suspected DWI's.

The Commonwealth of Virginia and the federal government are currently involved in a significant cooperative effort designed to identify the problem drinker and get him off the road. The Fairfax Alcohol Safety Action Project (ASAP) is a 3½ year demonstration program paid for by the federal government under contract with the Department of Transportation, Office of Alcohol Countermeasures. The program is important in that it attempts to focus maximum resources on a limited area. ASAP activities are divided into four specific countermeasure areas: (1) assisting the police in apprehending problem drinking drivers; (2) offering new legal services for pre-trial investigation; (3) developing a new comprehensive system for treatment and rehabilitation; and (4) undertaking a program to change public attitudes toward the drinking driver.

1001

To help the police officers' chronic shortage of manpower and on the road equipment, ASAP will provide Fairfax police with 11 new police cruisers and an additional 28,000 man-hours a year. Medical vans which expedite the taking of chemical test evidence and video evidence will be provided to encourage DWI charges. Finally, all officers will attend training sessions designed to increase their knowledge about the safety aspect of the problem drinker.

In order to prevent the problem drinker from driving, a special probation staff will conduct a survey of all persons arrested for drunken driving to determine whether they are psychiatric problems rather than driving problems. The probation officer will then recommend to the prosecutor that the accused either stand trial, have further diagnosis, or be referred to a driver improvement school.

The rehabilitation and treatment countermeasure is centered around the driver improvement school at Northern Virginia Community College and the Falls Church Mental Health Center. The school will employ a part-time psychiatrist, a full-time psychologist and a full-time psychiatric social worker with alcohol rehabilitation training.

Public information and education under ASAP auspices are designed to convince the public that it is dangerous to drive after drinking. The program seeks, however, to avoid blanket prohibitions to minimize public deficiencies. These goals will be achieved through public opinion surveys and extensive advertising.

A more extensive statewide public information and education campaign will be stressed by the Highway Safety Division in the coming year. To facilitate this effort a full-time information officer was hired. His duties generally include increasing public awareness of traffic safety and acceptability of new steps taken to increase safety. In conjunction with an educational goal, officials in the Highway Safety Division have

taken time to teach highway safety related courses in nearby universities. Funds have also been designated for conducting an alcohol countermeasures indoctrination program for policemen. This educational experience for policemen is designed to increase their awareness and sensitivity to both the problems of the drinking driver and the needs of the community for protection from the drinking driver's secondary consequences.

Another educationally related project of the Highway Safety Division seeks to increase the awareness of the young driver or yet to be licensed trainee to the dangerousness of mixing too much alcohol when driving. This knowledge should be increased by a new driver education experiment sponsored by the state that uses small-group interactions as its defining principle. Its goal is to use peer group pressure to change the attitudes of young drivers. The normal textbook-movie technique is eliminated in favor of increased interaction between students and teacher. The method may offer returns in terms of reducing alcohol-related accidents.

Two major reports from the Highway Safety Division should increase response efficiency in terms of specific countermeasures. One report compared the penalties for driving while intoxicated of the 49 states and the District of Columbia with those of Virginia. The startling conclusion was that Virginia's penalties are extremely harsh. A parallel report presented results of a study that sought to determine what the optimum sanction for driving while intoxicated should be. Its conclusions were based on questionnaires and attitude surveys sent to judges, commonwealth's attorneys and licensed drivers. It is felt that these reports will be a significant help to legislators in shaping legislation to the DWI problem.

One of the major problems has been Virginia's inability to keep accurate and extensive records of DWI arrests and convictions within the state. A major effort is being directed at alleviating this problem. The traffic records system under development is designed to evaluate the present conviction processing procedures and

structure new systems to better handle anticipated problems. As an outgrowth of this effort, the Division has designed a data collection card for gathering information about the preliminary breath test. It is filled out by every policeman using the preliminary breath test. The information is sent to the Richmond headquarters where it is coded and tabulated. The more efficient gathering of information coupled with an expertly conducted analysis should give an accurate picture of exactly what is happening within the state.

Much of the effort of the Virginia Highway Safety Division is devoted to developing programs designed to prevent accidents before they occur. A slightly different approach is taken in an ambitious new program sponsored by the Commonwealth and the federal government which has as its sole purpose the in-depth investigation of all causes of accidents. This multidisciplinary crash investigation team is composed of engineers, mechanics, lawyers, and psychologists. Such teams in other areas have already labeled alcohol as the greatest hazard to safe driving. Though this major effort enters the safety continuum after the event it is intended to prevent, in a larger sense it is hoped that these findings will lead to changes which will decrease accidents in the future.

A related and rapidly changing field is drug abuse in relation to traffic safety. A recent highway safety survey linked marihuana and drug use and highway safety among high school students of the state. The findings suggested that drug use is a significant factor in many accidents. The data showed that approximately 36% of fatal motor vehicle crashes involving 16 - 19 year old drivers may involve marihuana and drug use coupled with driving is a particularly lethal combination. An increase in drug use and driving will warrant greater examination of the current Code provisions relating to drugs and highway safety. Such a study, designed to upgrade drug provisions

of the Virginia Code, is in progress. Unfortunately the effort has been hampered by a lack of objective scientific data on accident causation, the effects of drug use on one's ability to safely operate an automobile, and a lack of practical and accurate test methods to determine the presence of drugs. Both the information and educational campaigns will focus on educating the normal driver to this danger.





HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN			1. State of Virginia		2. TITLE		Identification and Surveillance of Accident Locations (Cities)					3. NO. IS-73-391 46-73-09-01		4. DATE 4/1/72	
5. DRAFTED BY W. L. Howard APPROVED BY J. T. Hanna							FISCAL YEAR 1973							1974 1975 FY-1 FY-2	
							1971 FY-2		1972 FY-1		1st Q 2nd Q 3rd Q 4th Q		TOTAL		
6a. EFFECTIVENESS No. of Deaths at Improved Hazardous Accident Locations															
6b. OUTPUT			C % of Hazardous Locations Identified and Corrected												
7. RESP.			8. STD.		9. TASKS & MILESTONES										
HSD			309		1. Program to identify and inventory high accident locations (for cities not under the jurisdiction of the Virginia Department of Highways). A. Hire consultant for the development of the program, establish countermeasures, and provide guidance for before and after studies.						Contract Consult. Survey		Imple. Imple.		
HSD			309		2. Multidisciplinary accident surveillance team (total no. of teams).		1		1		6		6 6 6 6 8 10		
10. DESCRIPTION					Before we can accomplish our goal of reducing the number of deaths and injuries on our highways, we must first be able to identify and correct the most hazardous accident locations. Virginia's administrative organization lends itself to a two part division of authority, one program operating within the Department of Highways and the other program operating under the direction of the cities. The biggest problem with our program of accident location identification seems to be within our cities, which report 51% of all accidents on only 11% of Virginia's total highways, streets, and roads.										
11. COST BY TASK					1. Develop identification and surveillance of accident location program for cities not under jurisdiction of VDH.				15		15		15 15 60 8 10		
2. Multidisciplinary accident surveillance teams.							30		30		40		40 160 100 50		
12. TOTAL COST			65		96		82		82		82		328 266 270		
LOCAL SHARE			31.5		44.3		41		41		41		133 135		
STATE SHARE			0		15.0		0		0		0		0 0		
FEDERAL SHARE			33.5		36.7		41		41		41		133 135		
TO LOCALITIES			33.5		21.7		41		41		41		133 135		



HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE of Accident Locations		3. NO. <u>IS-73-391</u> <u>46-73-09-02</u>	4	DATE 4/1/72
5. DRAFTED BY W. L. Howard APPROVED BY J. T. Hanna			1971 FY-2	1972 FY-1	FISCAL YEAR 1973 1st Q 2nd Q 3rd Q 4th Q TOTAL	1974 FY+1	1975 FY+2
6a. EFFECTIVENESS							
6b. OUTPUT		C					
V							
7. RESP.	8. STD.	9. TASKS & MILESTONES					
HSD	309	3. Crash facts (reproduced from State Police publication)					
Cities & VDH	309	4. Field reference system (in conjunction with Virginia Department of Highways)					
HSD & Localities	309	5. Local identification and surveillance programs already under way					
HSD	309	6. Consultants for identification of hazardous locations at 139 sites in the cities					
		7. Data system					
10. DESCRIPTION continued. To help alleviate this problem the Highway Safety Division in 1972 contracted with an engineering firm for the purpose of surveying and identifying hazards at 139 locations in the cities. The studies have been completed and the recommendations are being carried out as funds permit. In 1973 proposals for federal funds will include the following.							
1. The hiring of an engineering consulting firm for the development of an identification and							
11. COST BY TASK \$(000)							
3. Crash facts							
4. Field reference system							
5. Local programs (estimated costs)							
6. Consultants							
12. TOTAL COST \$(000)							
LOCAL SHARE							
STATE SHARE							
FEDERAL SHARE							
TO LOCALITIES							

surveillance program to be used by the cities for identification of their hazardous locations. This study will include the development of the program, suggested countermeasures, and assistance in making before and after studies of the locations.

2. We plan to continue funding a state multidisciplinary accident surveillance team and also work with 4 or 5 local jurisdictions in the development of others. Last year's team contributed a great deal in the elimination of hazardous conditions at the locations it studied.
3. The HSD plans to reproduce the State Police Crash Facts for all localities so they will be able to evaluate their safety programs more effectively.
4. A field reference system for the identification of accident locations will be developed for use by the cities and the VDH. We anticipate the hiring of a consulting firm for this endeavor.
5. Many of our larger cities have already established programs in this standard area. The HSD will assist these local programs if funding is available.

At the present time very little evaluation of our program is conducted. Upon completion of the state's new traffic records system we will be able to evaluate the program more effectively.



EFFECTIVENESS SUPPLEMENT  
TO THE SUBELEMENT

Title and No. <u>IS-73-391</u> <u>46-73-09-05</u> Identification and Surveillance	Date 4-1-72	19 <u>71</u>	19 <u>72</u>	Fiscal Year 73					19 <u>74</u>	19 <u>75</u>
		FY-2	FY-1	1st Qt.	2nd Qt.	3rd Qt.	4th Qt.	Total	FY+1	FY+2
6a. EFFECTIVENESS										
Reduction in the number of accidents per volume of traffic at identified and improved hazardous locations.		20%	25%					28%	30%	32%
1.										
2.										
3.										
4.										
5.										
6.										

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. Identification and Surveillance of Accident Locations - VDH		3. NO. 46-73-09-01	4	DATE 4/1/72
5. DRAFTED BY Fred F. Small APPROVED BY J. T. Hanna		1971 FY-2	1972 FY-1	FISCAL YEAR 1973			1974 FY+1
6a. EFFECTIVENESS Reduction in the number of accidents per volume of traffic at identified and improved hazardous locations.*		20%	25%	28%	28%	28%	30%
6b. OUTPUT		30%	34%	10%	10%	10%	45%
7. RESP.		250	275	60	60	65	225
8. STD.							
9. TASKS & MILESTONES							
1. Develop comprehensive automatic data processing identification system. (VDH)							
2. Establish data base for the above.							
3. Continued implementation of analysis system with necessary revisions. (VDH)							
4. Operations (VDH)							
(a) Personnel							
(1) State Traffic and Safety Engineer		1	1	1	1	1	1
(2) Asst. Traffic and Safety Engineer		2	2	2	2	2	2
10. DESCRIPTION							
The long-term goal is to reduce the number of accidents including severe injuries and property damage by identification, surveillance, location correction and follow-up evaluations and analysis. The immediate objective of this program is to establish an accident identification and surveillance system consistent with increasing volumes in traffic and accident demands utilizing to a greater degree automatic data processing to afford maximum and definite coverage. Phase 1 -- Consists of a series of programs which correlate accidents, traffic and geometrics. This in turn, allows for identification							
11. COST BY TASK \$(000)							
4. Personnel							
A-1 State Traffic & Safety Engr.		2.0	2.4	0.7	0.7	0.8	3.0
A-2 Asst. Traffic & Safety Engr.		7.6	8.4	2.1	2.1	2.2	8.6
A-3 Highway Traffic Engineer C		14.8	15.4	8.1	8.1	8.1	32.4
A-4 Highway Traffic Engineer B		38.6	39.5	10.3	10.3	10.4	41.4
A-5 Highway Traffic Engineer A		53.8	54.7	18.6	18.6	18.7	74.6
A-6 Highway Traffic Technician C		115.1	116.8	22.8	22.8	22.9	91.4
A-7 Highway Traffic Technician B		67.2	67.8	15.5	15.5	15.6	62.2
12. TOTAL COST \$(000)		399.6	411.4	159.5	159.6	160.7	640.3
LOCAL SHARE		0	0	0	0	0	0
STATE SHARE		399.6	411.4	109.5	109.6	110.5	440.3
FEDERAL SHARE		0	0	50	50	50	200
TO LOCALITIES		0	0	25	25	25	100
1975 FY+2							
32%							
47%							
200							

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia		Identification and Surveillance of 2. TITLE Accident Locations		3. NO 46-73-09-02		IS-73-392		4. DATE 4-1-72	
5. DRAFTED BY Fred F. Small APPROVED BY John T. Hanna		1971 FY-2		1972 FY-1		FISCAL YEAR 1973		1st Q 2nd Q 3rd Q 4th Q		TOTAL	
6a. EFFECTIVENESS											
6b. OUTPUT		C		V							
7. RESP.	8. STD.	9. TASKS & MILESTONES									
VDH	309	4. Operations continued (3) Highway Traffic Engineer C (4) Highway Traffic Engineer B (5) Highway Traffic Engineer A (6) Highway Traffic Technician C (7) Highway Traffic Technician B (8) Highway Traffic Technician A (9) Clerk-Stenographer C (10) Clerk-Stenographer B B. Supplies C. Rent (offices) D. Computer (time) E. Travel F. Training (OJT and Northwestern)									
		1	1	2	2	2	2	2	2	2	2
		3	3	3	3	3	3	3	3	3	3
		5	5	7	7	7	7	7	7	7	7
		13	13	10	10	10	10	10	10	10	10
		10	11	10	10	10	10	10	10	10	10
		0	0	1	1	1	1	1	1	1	1
		1	1	2	2	2	2	2	2	2	2
		1	1	2	2	2	2	2	2	2	2
		3	3	3	3	3	3	3	3	3	3
		37	38	10	10	10	10	10	40	40	40
10. DESCRIPTION continued. and evaluation of individual locations based on geometrical differentials and enables the establishment of critical rates for each type of facility. Phase 2 — Consists of a program that will establish a data base for determining the effectiveness measure of each type improvement in relation to adjacent geometrics, traffic volumes and community characteristics. Phase 3 — Provides for immediate and continuing analysis of program data and findings. This phase includes location selection, improvement requirements, B/C analysis, construction implementation and after studies with findings fed back into the data base; Phase 2.		11. COST BY TASK \$(000) A-8 Highway Traffic Technician A A-9 Clerk-Stenographer C A-10 Clerk-Stenographer B 4-B Supplies 4-C Rent 4-D Computer Time 4-E Travel		0 5.7 9.8 5.1 6 16.5 12.4		0 5.8 10.1 5.1 6 16.6 12.8		1.3 3.1 2.6 1.2 1.5 4.2 3.3		1.4 3.1 2.6 1.3 1.5 4.2 3.4	
		12. TOTAL COST \$(000) LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES									
</											



HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia		2. Identification and Surveillance of TITLE Accident Locations		3. NO. 46-73-09-03		4. DATE 4/1/72			
5. DRAFTED BY Fred F. Small APPROVED BY John T. Hanna				1971 FY-2	1972 FY-1	FISCAL YEAR 1973 1st Q 2nd Q 3rd Q 4th Q TOTAL		1974 FY+1	1975 FY+2		
6a. EFFECTIVENESS											
6b. OUTPUT		C									
		V									
7. RESP. VDH & HSD	8. STD. 309	9. TASKS & MILESTONES		75	75	20 Hire Consult. to devel. system survey	20 Analysis Install	20 Devel. Install	80 Install	80	80
		5. Field Reference System (Devel. Pro.) A. Miles Posted (Highways under jurisdiction of VDH) B. Cities and State (Program to be developed) See SEP IS-73-391 (will be coordinated by VDH)									
6. Traffic Conflict Study * Conflict studies will be integrated into Phase 3 of this program in analyzing and determining improvement needs at identified locations.  Task cost incorporated into paragraph #4 — Operations (Personnel and Supplies)						*	*	*	*	*	*
10. DESCRIPTION continued. The Highway Department, Highway Safety Division, and personnel representing the cities not under the jurisdiction of the VDH will jointly develop a field reference system for use throughout Virginia for accurate identification of accident locations. At present the VDH has installed approximately 150 miles of mile-posting on its interstate highway system. The VDH will continue installing mileposts on the interstate highways and start installing them on the primary roads. It also plans to purchase a photograph logging system for identification of accident locations.		11. COST BY TASK \$(000)		0	0	0	0	0	0	1.4	0
		4-F. Training									
		5. Field reference system									
		A. VDH (installation of mile posting)		45	50	14.2	14.2	14.3	14.3	57	
		B. Develop field reference system for cities and state (install system)		0	0	50	50	50	200	260	260
12. TOTAL COST \$(000)		LOCAL SHARE									
		STATE SHARE									
		FEDERAL SHARE									
		TO LOCALITIES									

\*Federal Funds

HIGHWAY SAFETY PROGRAM SUBELEMENT SUPPLEMENT		State of Virginia		Identification and Surveillance of IS-73-392 3. No. 46-73-09-05 4. DATE: 4-1-72									
		TOTAL		TASKS									
				1	2	3	4	5	6	7	8	9	10
13.	D Standard: 309												
I	Total \$(000)	640.3					383.3	257					
S	Federal	200					0	200					
T	To Localities	100					0	100					
R	Prev. Obligations	0					0	0					
	New Obligations	200					0	200					
I	Standard:												
B	Total												
U	Federal												
T	To Localities												
I	Prev. Obligations												
O	New Obligations												
N	Standard:												
	Total												
B	Federal												
Y	To Localities												
	Prev. Obligations												
	New Obligations												
S	Standard:												
T	Total												
A	Federal												
N	To Localities												
D	Prev. Obligations												
	New Obligations												
A	Total												
R	Federal												
D	To Localities												
	Prev. Obligations												
14.	Local Costs by Object												
	Salaries												
	Per Diem and Travel												
	Contracts												
	Equipment												
	Supplies												
	Maintenance and Operations												
	Total												

## IDENTIFICATION AND SURVEILLANCE OF ACCIDENT LOCATIONS

Preceding the advent of a federal-state highway safety improvement program, Virginia formulated a project designed to identify and eliminate hazardous locations on highways within the state. A hazardous location is defined in terms of three criteria: (1) Whether the site has been identified as potentially accident-generative through analysis of past accidents (five accidents occurring at a location within a one-year time span), (2) whether the accident site can be improved to measurably reduce the number and severity of accidents, and (3) whether the improvement project will result in a favorable cost-benefit relationship.

The minimum requirements of the total program as set out by the federal government in Policy and Procedure Memorandum 21-16 include:

- (1) Identifying hazardous sections on spot locations.
- (2) Ranking recommended improvements on a priority basis.
- (3) Evaluating the effectiveness of completed projects.
- (4) Selection of safety projects in the interim.
- (5) Inclusion of a proposed time table for implementing the program.

Of course, a state can go beyond these bare essentials and fill in the gaps so as to adapt the program to fit its needs.

Virginia's administrative organization lends itself to a two-part division of authority, one program operating under the auspices of the Department of Highways and another under the direction of the cities. The Department of Highways has jurisdiction over primary, secondary and interstate roads in all the counties except Arlington and Henrico and in all cities with a population less than 3,500. These highways within the Department of Highways' jurisdiction have experienced approximately 71% of all miles traveled, 49% of all reported accidents, 73% of all fatalities, and 89% of the vehicle miles in the state. So 51% of all accidents occur on the 11% of the total miles

in the state not within the Highway Department's jurisdiction. Governing bodies of cities with populations over 3,500 have jurisdiction over all roads within their city limits.

#### Highway Department Program

In order to implement the policies of the program for the identification and surveillance of accident locations adequate field reference and traffic records systems must be maintained.

The field reference system is basically a graphic description of points every one-hundredth of a mile of road along with major intersections and other prominent physical identification points. In theory, every accident is located by using the relevant reference points and then analyzed by a staff of traffic engineers and technicians at the State Police Headquarters. In practice, however, administrative and budgetary difficulties have hampered widespread implementation of this system. Currently field markers are limited to the interstate highway system within the Commonwealth. A major goal of the current highway safety program is to develop a field reference system on all roads within the state. The field reference system is being studied by the Traffic Records Committee. It seems clear that accurate identification of accident sites is a prerequisite to the accomplishment of any further goals in the subelement plan on the surveillance of accident locations.

A more extensive traffic records system concerning accident sites will operate this year through a joint effort between the Department of Highways and the State Police. In the past, data were collected manually and included such detailed information as traffic volumes, foreign vehicles, and bus and truck composites. In most cases this out-dated system of relying on the manual input of SR300 accident reports led to a time lag between the accident and feedback of accident statistics to the Department. The

timely effectuation of countermeasures demands the quick and accurate retrieval of these accident statistics.

A major effort is now being directed toward changing this system to a comprehensive automatic data processing identification system. Included within this effort will be a computer program to identify hazardous sections of the highway based upon accident, traffic, and geometrical data. After all available data about a hazardous location are compiled by the computer system, a field check will be made of the site and recommendations calculated to improve the site will be made. Traffic and safety engineers hired by the state will have the major responsibility for formulating these recommendations. The existing multidisciplinary team project will be expanded by training an additional team. These working units composed of engineers, mechanics, lawyers and psychologists have the mission of determining all the relevant causes of specified automobile crashes. Once a plan for improvement has been approved a cost-benefit analysis of the improvement procedures will be made by the Department of Highways.

So the three step procedure involves (1) accurate statewide identification of hazardous locations, (2) compilation of relevant statistical data regarding the locations, and (3) promulgation of improvements to the highway location. The goal remains quick implementation of all three aspects in order to have the greatest effect on reducing highway accidents.

#### City Program

The cities (all those jurisdictions with a population greater than 3,500) have in the past been hampered in their efforts by lack of organization and adequate funding.

Traditionally their program to identify accident locations has been solely a manually developed spot map for each city listing all previous accident locations.

A tentative attempt to mimic the Highway Department "before and after" studies through multidisciplinary teams is being pursued; but again lack of funds has been the most significant limiting factor. The Highway Department is helping out by hiring consultants to work with the cities and counties. It is hoped that these additional employees will create more efficient programs for identifying traffic sites and also formulate effective countermeasures after in-depth studies of accident locations.

Finally a publication of Crash Facts focusing on the city jurisdiction locations should provide a more accurate picture of existing trends relating highway safety design to accident causation. Every locality will then know exactly how well its traffic safety program is progressing.

In sum, it must be admitted that the value of the city program for the identification and surveillance of accident locations depends primarily on the efforts of local officials. If these administrators are unconvinced of the worth of this program their individual commitment will be correspondingly diminished. It takes a strong public and private stance in support of these programs to both increase budgetary outlays and mobilize supportive personnel. Recognizing this need the Highway Safety Division has vigorously pushed its educational campaign toward city officials so as to create a more favorable operating climate.







Traffic Records TR-73-501  
46-73-10-03

DESCRIPTION: (Cont.)

In order to accomplish the implementation and continuation of an effective traffic records system the Highway Safety Division established a Traffic Records Committee to study the present traffic records system and make recommendations for its improvement.

A study team made the following recommendations: (1) A central authority must be established that will be responsible for the control, integrity and operation of the total system. This authority must have the responsibility for cost effectiveness in the areas of computer equipment, software and programming systems, priorities, and the expertise in the planning, implementation and continuity of the system. (2) A uniform accident reporting system must be drafted and adopted in the Commonwealth of Virginia. (3) A training program must be instituted to educate all law enforcement agencies throughout the Commonwealth in the administration and use of the uniform reporting system. (4) The amount of time allowed for an officer to submit a preliminary accident report to the entering agency must be reduced to 72 hours from the time of the accident. (5) All accidents must be investigated and reported by a law enforcement officer. (6) A uniform traffic records locator system must be established for the Commonwealth. The Traffic Records Committee will continue to study the recommendations for the further development and implementation of the system. It will also consider the purchase, acquisition, or leasing of the necessary equipment.

1. State of Virginia		2. TITLE Traffic Records										3. No. 46-73-10-044. DATE 4-1-72		TR-73-501
		TASKS												
TOTAL		1	2	3	4	5	6	7	8	9	10			
13.	D Standard: 310													
I	Total \$(000)	580		12.5	287.5		250		30					
S	Federal	290		6.27	143.75		125		15					
T	To Localities	0												
R	Prev. Obligations													
N	New Obligations	290		6.27	143.75		125		15					
I	Standard:													
B	Total													
U	Federal													
T	To Localities													
I	Prev. Obligations													
O	New Obligations													
N	Standard:													
B	Total													
Y	Federal													
T	To Localities													
Y	Prev. Obligations													
N	New Obligations													
S	Standard:													
T	Total													
A	Federal													
N	To Localities													
D	Prev. Obligations													
N	New Obligations													
A	Total													
R	Federal													
D	To Localities													
	Prev. Obligations													
14.	Local Costs by Object													
	Salaries													
	Per Diem and Travel													
	Contracts													
	Equipment													
	Supplies													
	Maintenance and Operations													
	Total													

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE Traffic Records -- DMV	3. NO. 46-73-10-01	TR-73-502	4. DATE 4-1-72
5. DRAFTED BY A. D. Harvey APPROVED BY J. T. Hanna		19 71 FY-2	19 72 FY-1	FISCAL YEAR 19 73 1st Q 2nd Q 3rd Q 4th Q TOTAL	19 74 FY-1	19 75 FY-2
6a. EFFECTIVENESS						
6b. OUTPUT						
	C % of Records on Automated File					
	V Number of Records on Automated File					
7. RESP.	8. STD.	9. TASKS & MILESTONES				
DMV	310	1. Traffic Records Electronic Data Processing Program				
		A. Number of Transactions Processed (000,000)	36.0	38.7	10.4	47.7
		B. Number of Motorist Records (000,000)	4.0	4.2	1.1	4.8
		C. Number of Vehicle Records (000,000)	2.7	3.8	1.2	8.3
DMV	310	2. Motorist data base project		Devel.		
10. DESCRIPTION : The long-range goal of the DMV Traffic Records Program is to reduce highway deaths, personal injuries, and property damage by providing sufficient records for more effective law enforcement purposes. The immediate goal at DMV is to provide complete motorist and vehicle information to authorized requesters immediately upon request through automation. DMV's programs are shown on the subelement plan.		11. COST BY TASK \$(000)	897	946		1,086
		1. Traffic records electronic data processing		Survey	249	1,034
		2. Motorist data base			87.5	950
		12. TOTAL COST \$(000)	897	946	336.5	1,086
		LOCAL SHARE			0	
		STATE SHARE	897	946	249	1,034
		FEDERAL SHARE			87.5	350
		TO LOCALITIES			0	0
2. DMV is working with the Traffic Records						

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE Traffic Records	3. NO. <u>TR-73-502</u> <u>46-73-10-02</u>	4. DATE <u>4-1-72</u>
5. DRAFTED BY <u>A. D. Harvey</u> APPROVED BY <u>J. T. Hanna</u>		FISCAL YEAR 1973			
		1971 FY-2	1972 FY-1	1st Q	2nd Q
				3rd Q	4th Q
				TOTAL	1974 FY+1
					1975 FY+2
6a. EFFECTIVENESS					
6b. OUTPUT		C % of records on automated files			
		V Number of records on automated files			
7. RESP. DMV	8. STD. 310	9. TASKS & MILESTONES			
		3. Crash Report Statistics Project			
		A. Research and document local law enforcement reporting requirements.			
		B. Research and document other state agencies' reporting requirements.			
		C. Define expanded data capture requirements.			
		D. Define expanded data base requirements.			
		E. Define reports required.			
10. DESCRIPTION: Committee on the development of a motorist data base. This project will produce an integrated, common data base which provides for all information, filing, storage and retrieval needs of the Division of Motor Vehicles using both manual and automated systems for driver licensing and vehicle licensing information.		11. COST BY TASK \$(000)			
3. This project is designed to expand the comprehensive data that the Division of Motor Vehicles is required to maintain, to research crash report statistical requirements of other state and local agencies, and to satisfy these requirements with timely statistical reports. The Division of Motor Vehicles continues to work with the Traffic Records Committee in the development of a new		12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES			

Traffic Records  $\frac{\text{TR-73-502}}{46-73-10-03}$  DESCRIPTION: (Cont.)

traffic records system for Virginia. This system is very important in effectively evaluating our highway safety programs.

1. State of Virginia		2. TITLE Traffic Records		3. No. 46-73-10-04		4. DATE 4-1-72					
TOTAL		1	2	3	4	5	6	7	8	9	10
TASKS											
13.	D Standard:										
I	Total \$(000)	1,346	996	350							
S	Federal	350	0	350							
T	To Localities	0	0	0							
R	Prev. Obligations	0	0	0							
	New Obligations	350	0	350							
I	Standard:										
B	Total										
U	Federal										
T	To Localities										
I	Prev. Obligations										
O	New Obligations										
N	Standard:										
	Total										
B	Federal										
Y	To Localities										
	Prev. Obligations										
	New Obligations										
S	Standard:										
T	Total										
A	Federal										
N	To Localities										
D	Prev. Obligations										
	New Obligations										
A	Total										
R	Federal										
D	To Localities										
	Prev. Obligations										
14.	Local Costs by Object										
	Salaries										
	Per Diem and Travel										
	Contracts										
	Equipment										
	Supplies										
	Maintenance and Operations										
	Total										

## TRAFFIC RECORDS

Traffic Records Committee

The National Highway Traffic Safety Administration has indicated that the Commonwealth of Virginia is more inefficient in the compilation of traffic records than in the other standard areas enumerated in the comprehensive highway safety program. Consequently, a Traffic Records Feasibility Study Team was formed by the Highway Safety Division of Virginia to study the present conditions and make recommendations for improvements. The following major deficiencies were found in the traffic records system by the Feasibility Study Team.

(1) Inaccurate and incomplete recording of accident locations.

There are no specific reference points in the field. The Highway Department maintains a paper milepost of all roads under its direct control. The State Police determine the location of accidents from the description given on the standard accident reporting form SR300 and this is posted on the paper milepost. The accuracy in pinpointing the accident location depends on the source of the SR300 -- the law enforcement officers, offenders, and witnesses.

In urban areas accidents are located by intersection reference.

(2) Nonuniform accident reporting.

Law enforcement officers submitting SR300 reports do not use uniform report methods, since various levels of training exist among law enforcement officers and some law enforcement departments set their own standards for reporting accidents.

(3) Untimely processing and dissemination of accident data.

Approximately 90 days are required to process accident data. Individuals involved are required to submit a report (SR-300) to the Division of Motor Vehicles (DMV) within five days of the accident. If the accident meets the standards of a reportable accident, the law enforcement officer must submit a report (SR-300) to DMV within 24 hours "after the investigation is complete," thereby allowing for an indefinite accident investigation.

The individual reports are held at the DMV for 30 days to be matched with the officer's report or with other individual reports before being forwarded to the Department of State Police.

The State Police process accidents according to where they occur -- rural or urban. A magnetic computer tape containing information from the accident reports is sent to the Department of Highways, where it is edited and recoded. Local law enforcement agencies still do not have access to the information.

The following recommendations were made by the Traffic Records Feasibility Study Team:

- (1) A central authority should be founded or designated to control all traffic record keeping and its primary task should be that of establishing a traffic records data base.
- (2) A uniform accident reporting system should be adopted by the Commonwealth and a uniform report should be filed by law enforcement officers, who shall investigate all accidents.
- (3) A statewide training program should be instituted to educate all law enforcement agencies throughout the Commonwealth in the administration and use of the uniform report.



- (4) An investigating officer's preliminary accident report shall be submitted to DMV within 72 hours from the date of the accident.
- (5) A correctional system should be adopted so that any errors in accident reports may be brought to the attention of the office completing the report.
- (6) The uniform accident report should be entered into the traffic records data base directly so that all agencies have timely access to the accident data.
- (7) Responsibility for the entry and the accuracy and timeliness of the data should be vested with the central authority for the Traffic Records System.
- (8) All accidents should be investigated and reported by a law enforcement officer.
- (9) A uniform traffic records locator system should be established for the Commonwealth. The present paper mileposts or intersection reference points are inaccurate and nonuniform. A combination of location by coordinates, location by milepost, location by reference point or location by grid system should be used. A statewide system of numbering all intersections throughout the state of Virginia for both rural and urban roads is needed.
- (10) The four basic files (driver, vehicle, highway, and accident) should be evaluated to ensure they include necessary information. The driver file must provide basic information such as driver training, licensing, and violations. The vehicle file must include basic information on titles and registrations as well as vehicle inspection data. The highway file must contain a record of every ramp, intersection and significant highway point in the system. The accident file should contain specific data on particular accidents.

The basic structure of the Traffic Records System consists of the driver, vehicle, highway, and accident files. In order to have an effective, or even adequate, Traffic Records System, which the Commonwealth at the present time does not have, these four files must be accurate, automated, cross-referenced and updated daily. The Traffic Records Feasibility Study Team has pointed out the problems and made recommendations. It is now up to the state government to implement the recommendations made by the Study Team.

#### Division of Motor Vehicles

The long-range goal of the Virginia Division of Motor Vehicles traffic records program is to reduce deaths, personal injuries, and property damage caused by the lack of sufficient records for traffic law enforcement purposes. The immediate goal of the Division is to provide complete motorist and vehicle information, through automation, to authorized persons immediately upon request.

The Division's traffic records electronic data processing program maintains separate and distinct driver and vehicle data systems without an automatic cross-reference that ties the vehicles owned by a driver to his driving record.

The Division has requested \$350,000 for the motorist data base project for fiscal year 1973. This project will produce an integrated common data base that will provide for all the information, filing, storage, and retrieval needs of the Division, including manual and automated processing methods for driver licensing and vehicle licensing and information.

In conjunction with the motorist data base project during fiscal year 1973, the Division will conduct a crash report statistics project to:

- (1) Research and document local law enforcement reporting requirements;

- (2) research and document other state agencies' reporting requirements;
- (3) define expanded data capture requirements;
- (4) define expanded data base requirements; and
- (5) define reports required.

These programs form an integral part of the driver testing and licensing and motor vehicle registration programs outlined under subelements 302 and 305.







HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia		2. TITLEEmergency Medical Services		3. NO. EM-73-181 46-73-11-02		4. DATE 4-1-72		
5. DRAFTED BY St Hellman & W. Howard APPROVED BY J. T. Hanna		1971 FY-2	1972 FY-1	FISCAL YEAR 1973 1st Q 2nd Q 3rd Q 4th Q TOTAL		1974 FY+1	1975 FY+2			
6a. EFFECTIVENESS										
6b. OUTPUT	C									
	V									
7. RESP. Local Political Subdivisions	8. STD. 311	9. TASKS & MILESTONES 4. Procure equipment A. Ambulances \$15,000 B. Crash trucks \$17,500 (light duty) C. Vital signs equipment \$1400 D. Projectors \$500 E. Med. equipment (\$400 per unit) F. First Aid supplies (for ambulances) \$350 each G. Oxygen(\$500 per facility) H. Stretchers \$75 each I. Porta power hydraulic jacks \$350 each J. K-12 saws \$450 each								
		100	108	Bids 100	0	0	0	100	110	115
		3	2	10	0	0	0	10	10	15
		0	0	4	0	0	0	4	5	5
		0	2	13	0	0	0	13	10	10
		100	108	74	0	0	0	74	80	90
		150	200	30	0	0	0	30	50	50
		395	395	400	0	0	0	400	416	426
		50	50	56	0	0	0	56	70	90
		2	2	15	0	0	0	15	8	10
		1	1	12	0	0	0	12	12	12
10. necessary equipment such as crash trucks, oxygen, vital sign equipment, porta-power hydraulic jacks and other needed equipment for the care of accident victims. In order to accomplish this goal we plan to: (1) upgrade training for ambulance and rescue vehicle personnel where needed; (2) develop licensing and related requirements for emergency vehicle personnel and set up the mechanism for these services; (3) continue paramedic training program; (4) establish paramedic training in all community colleges; (5) develop and implement a statewide emergency medical service/emergency health service communication		1,906	2,035	2,019	0	0	0	2,019	2,193	2,374
11. COST BY TASK \$(000) 4. Procure equipment										
12. TOTAL COST \$(000) LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES										

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia		2. TITLE Emergency Medical Services		3. NO. 46-73-11-03 EM-73-181		4. DATE 4-1-72			
5. DRAFTED BY Si Hellman & W. L. Howard APPROVED BY J. T. Hanna		19 71 FY-2		19 72 FY-1		FISCAL YEAR 19 73 1st Q 2nd Q 3rd Q 4th Q		TOTAL 19 74 FY+1 19 75 FY+2			
6a. EFFECTIVENESS											
6b. OUTPUT		C V									
7. RESP. Office of EMS and Local Political Subdivision	8. STD. 311	9. TASKS & MILESTONES 4. Equipment continued K. Rescue extrication equipment (\$850 per unit) L. Aspirators (Rico) \$110 each M. Sirens, lights \$350 per set N. Back boards \$50 each O. Telemetry \$25,000 5. Communications A. Base stations \$2500 each B. Mobile \$1100 each C. Hospital \$1750 each D. Portable \$375 each		10 50 100 200	10 50 108 225	Bids 24 32 76 33 1	0 0 0 0 0	0 0 0 0 0	24 32 76 33 1	30 40 80 40 1	35 45 85 50 1
	311			10 100 5 25	10 108 5 25	12 113 13 41	0 0 0 0	0 0 0 0	12 113 13 41	14 100 5 50	16 100 5 50
system; (6) seek mutual support and creation of a hospital to hospital communications system, local-regional-state; (7) develop standardized uniform reporting form; (8) introduce the necessary procedures for amending: (a) ambulance laws, (b) rules-regulations procedures; (9) extend requirements to include helicopter ambulance; (10) initiate instructor trainee programs; (11) upgrade and expand equipment, communications and training; (12) develop data system; (13) train as many lay persons as possible in standard and advanced first aid; (14) training all public services personnel, police and fire, etc. in first aid; (15) continue the hospital service sign program.		11. COST BY TASK \$(000)		186	198	278	0	0	278	234	239
		5. Communications									
		12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES									



HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE	Emergency Medical Services				3. NO.	EM-73-181	4. DATE	4-1-72
5. DRAFTED BY Si Hellman & W. L. Howard APPROVED BY J. T. Hanna											
6a. EFFECTIVENESS											
6b. OUTPUT											
7. RESP.											
8. STD.											
9. TASKS & MILESTONES											
Local											
Political											
Subdivisions											
5. Communications Continued											
E. Alerting Systems \$150 each											
F. Remotes \$240											
G. Encoders \$400											
H. Proposed for implementation of EMS communication systems into a statewide communications network											
1. Inventory											
The State Emergency Medical Services program will be implemented by the Supervisor of the Office of Emergency Medical Services of the State Health Department.											
An evaluation of Emergency Medical Services in Virginia starting with Phase 1 - Program Definition and Study Design will get under way during fiscal year 1972. The study will attempt to answer two fundamental questions: (1) What are the characteristics of the system and how well does it function? (2) Does Virginia have a model EMS system or are there gaps and deficiencies?											
11. COST BY TASK \$(000)											
H. Implementation											
Inventory											
Total cost of communications shown on p. 46-73-11-03											
12. TOTAL COST \$(000)											
LOCAL SHARE											
STATE SHARE											
FEDERAL SHARE											
TO LOCALITIES											



HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE Emergency Medical Services		3. NO. 46-73-11-06	EM-73-181	4. DATE 4-1-72
5. DRAFTED BY Si Hellman & W. L. Howard APPROVED BY J. T. Hanna		19 71 FY-2	19 72 FY-1	FISCAL YEAR 19 73 1st Q 2nd Q 3rd Q 4th Q TOTAL		19 74 FY+1	19 75 FY+2
6a. EFFECTIVENESS							
6b. OUTPUT		C					
		V					
7. RESP.	8. STD.	9. TASKS & MILESTONES					
		Training continued					
		C. Paramedic training (no. certified)					
		1. EMS personnel					
		2. Retrain					
		7. Legislative proposals					
Office of EMS	311	432	1,000	Imple.	Imple		2,000
	310	4,693	Intro. Imple.	Intro.	Imple		5,000
ISD	311	Study	Study Phase 1	Study Report	Study Phase II	Study Data Collection & Processing	Intro. Devel. Phase IV
		* Includes certification for the operation of communications equipment.					
11. COST BY TASK \$(000)							
9. Evaluation							
A. Personnel		15.975					
B. Contractual services		.750					
C. Office supplies		.4					
D. Other direct costs		3.15					
E. Indirect costs		5.07					
TOTAL		25.345					
12. TOTAL COST \$(000)							
LOCAL SHARE							
STATE SHARE							
FEDERAL SHARE							
TO LOCALITIES							

HIGHWAY SAFETY PROGRAM SUBELEMENT SUPPLEMENT		1. State of Virginia		2. TITLE Medical Services		Emergency		EM-73-181 3. No. 46-73-11-07		4. DATE 4-1-72	
		TOTAL		TASKS							
		1	2	3	4	5	6	7	8	9	10
13.	D Standard: 311										
I	Total \$(000)	0	0	77	2,019	298	0	0	0	60	
S	Federal	0	0	38.5	552	149	0	0	0	30	
T	To Localities	0	0	0	552	149	0	0	0	0	
R	Prev. Obligations										
	New Obligations	0	0	38.5	552	149	0	0	0	30	
I	Standard:										
B	Total										
U	Federal										
T	To Localities										
I	Prev. Obligations										
O	New Obligations										
N	Standard:										
	Total										
B	Federal										
Y	To Localities										
	Prev. Obligations										
	New Obligations										
S	Standard:										
T	Total										
A	Federal										
N	To Localities										
D	Prev. Obligations										
	New Obligations										
A	Total										
R	Federal										
D	To Localities										
	Prev. Obligations										
14.	Local Costs by Object										
	Salaries										
	Per Diem and Travel										
	Contracts										
	Equipment										
	Supplies										
	Maintenance and Operations										
	Total										

EFFECTIVENESS SUPPLEMENT  
TO THE SUBELEMENT

Title and No. <u>EM-73-181</u> 46-73-11-08 Emergency Medical Services	Date 4-1-72	19 71 FY-2	19 72 FY-1	Fiscal Year 73					19 74 FY+1	19 75 FY+2
				1st Qt.	2nd Qt.	3rd Qt.	4th Qt.	Total		
6a. EFFECTIVENESS										
* Average response time from unit dispatched to the actual arrival.		20 Min.	20 Min.					18 Min.	15 Min.	10 Min.
1.										
* Number of road miles within 20 minutes response time										
2.										
* Number of people within 20 minutes response time of an EMS facility.										
3.										
4.										
5.										
* Additional effectiveness measures will be available upon completion of traffic records system.										
6.										

## EMERGENCY MEDICAL SERVICES

Prior to the action of the 1968 General Assembly, the Commonwealth of Virginia did not have laws governing the operation of emergency medical services vehicles (ambulance services) nor were there any requirements for medical supplies and equipment. Prior to 1968, paramedical personnel directly or indirectly involved in handling victims of motor vehicle accidents or sudden illness were not required to have specialized training. The possession of a valid American Red Cross advanced first aid card or a United States Bureau of Mines card was sufficient.

The ambulance situation prior to 1968 was of little concern to most localities. If an ambulance was needed, contact was made with the funeral home, fire company, private establishments or the rescue squad. Most of these services were inadequate. They were generally used only as transportation for the sick, injured, helpless or incapacitated. Emergency care at the scene or enroute to a medical facility was practically nonexistent. The services rendered were very inadequate and the special emergency care equipment aboard the ambulance, if existing, could not be used by the attendants with confidence.

In 1968, the General Assembly enacted Chapter 16.1, Ambulances in Title 32 of the Code, creating an Advisory Committee on Emergency Services authorized to establish standards, rules, and regulations for ambulances, their drivers, and attendants. In 1968 the Governor created by executive order the Office of Emergency Medical Services within the Department of Health. A study was made of all the emergency medical service agencies in Virginia. This 1968 study revealed that approximately 18% of the ambulance attendants used standard first aid or no first aid on the injured; that only 64% of the 814 ambulances had two-way radios; that seven of the 96 Virginia counties were without emergency medical service based

within their boundaries; that 27 counties had inadequate ambulance coverage and 10 counties were in the process of establishing 13 emergency medical agencies. Local agencies and civic clubs were approached with a suggested plan to organize an operational local emergency medical service agency. Progress has been made since 1968 in overcoming the deficiencies mentioned above. Today, in Virginia there are 193 volunteer rescue or life saving squads and another 93 fire companies maintaining ambulance services. In addition, there are 82 funeral homes offering ambulance transportation. The total number of emergency medical service agencies is 396, but there continues to be a void or lack of an emergency medical service agency within the confines of several political subdivisions. Three counties lack emergency medical service, and the citizenry depend on neighboring jurisdictions for any and all ambulance service. This results in an increase in response time. Two counties with a city within the area boundaries have service provided by the city, with an increased response time. One city bordering another city is lacking an emergency medical service base of operation. The maximum response time should be 20 minutes, and most of the 135 political subdivisions are within this time period.

#### Communications

A recent study of existing emergency medical service two-way radio communications installations showed that only 78% of the agencies had voice contact with their base of operations. Only 8% of the present 396 individual base agencies have voice contact with definitive medical facilities of the 839 ambulances and two-way radio contact with the medical facility is possessed by only 9.6% of the agencies.

The emergency medical services now has a priority program to expand communications in ambulances and health care facilities. Funds have been requested for fiscal years 1973-74-75 to initiate a statewide emergency health/medical service communications

system. This statewide system will require cooperative work and support from other state agencies -- the Virginia Hospital Association, Regional Medical Program, and Comprehensive Health Planning.

Communications facilities are essential for the mobilization of rescue squads and equipment is needed for the establishment of an "on-site" center whereby law enforcement personnel, emergency ambulance crews, and highway and utility authorities are immediately advised of existing circumstances and anticipated future action. This will enable all personnel involved to: (a) provide emergency care and transportation for all injured; (b) prevent any additional mishaps at the scene; and (c) restore movement of traffic and repair utilities as soon as possible.

The communications control center can advise medical facilities of the number and types of injuries while ambulances are enroute and can re-route ambulances to another medical facility when the assigned facility is overcrowded. Improved communications can provide for adequate physician and nursing teams in the emergency room to receive the injured and thereby reduce "waiting" time. Communications control can also locate life-saving medical supplies and drugs at facilities within the state or in neighboring states.

Constant voice to voice radio communications between the ambulance, the emergency room and other medical centers may be instrumental in saving lives. This may gain additional meaning in times of disaster. A feasibility study committee will meet to recommend a course of action for the implementation of the proposed statewide emergency health and emergency medical services communications system. Representatives from the following state agencies will be present on this committee:

(1) The Virginia Hospital Association, (2) the Medical Society of Virginia, (3) the Virginia Highway Safety Division, (4) the Virginia State Police, (5) the Virginia State



Fireman's Association, (6) the Virginia Association of Volunteer Rescue Squads, (7) the Virginia Municipal League, (8) the League of Virginia Counties, and (9) Civil Defense.

### Comprehensive Health Planning

The Commonwealth has developed a master Comprehensive Health Planning Program. Twenty-two regional comprehensive Health Planning Districts will make in-depth studies of the needs of their respective cities and counties. Present and projected needs of emergency medical and emergency health services will be categorized. Assistance to local Emergency Medical Services Advisory Committees in seeking federal funds will be granted.

### Training

Training has been categorized as a priority item along with improved communications. In 1968, 80.7% of the ambulance attendants were trained in advanced first aid. In 1970, this percentage climbed to 90%, and as of October 1971, 98% of the attendants had advanced first aid training.

The Emergency Medical Technician Training Program begun during 1971 will expose all persons registered as medical technicians in the Office of Emergency Medical Services to advanced first aid. A 71-hour paramedic training program has been adopted as the advance course of instruction for all potential emergency medical technicians. The training program was recently endorsed by the Medical Society of Virginia and the Virginia Association of Volunteer Rescue Squads.

During the present fiscal year and each subsequent year through 1974, the Office of Emergency Medical Services will graduate a minimum of 1,000 emergency medical technicians each year. There will be a 20-hour refresher course during 1973 and each year thereafter.

The American Academy of Orthopedic Surgeons has developed guidelines for the refresher course. The Emergency Medical Service plans to recommend to the State Advisory Committee on Emergency Medical Services a minimum 20-hour refresher course to be offered in concert with the basic training program every two years.

In summary, the Emergency Medical Services has made significant gains since the enactment of the 1968 Chapter 16.1 of the Virginia Code concerning ambulances. New rules and regulations have been established concerning emergency medical care. Advanced first aid training under the Emergency Medical Technician Training Program has been implemented as a standard for all attendants. Funds have been requested for initiation of a statewide emergency health/medical services communications system. Improvement in these areas should enable the Emergency Medical Services to continue with an effective program.



HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	Highway Design, Construction 2. TITLE and Maintenance (Cities)		3. NO. HD-73-361 NO. 46-73-12-02	4. DATE 4-1-72	
5. DRAFTED BY W. L. Howard APPROVED BY J. T. Hanna		19 71 FY-2	19 72 FY-1	FISCAL YEAR 19 73 1st Q 2nd Q 3rd Q 4th Q		19 74 FY+1	19 75 FY+2
6a. EFFECTIVENESS							
6b. OUTPUT		C					
		V					
7. RESP.	8. STD.	9. TASKS & MILESTONES					
Cities, VDH	312	D. Program to improve hazardous railroad grade crossings					
"	312	E. Program to improve maintenance procedures to provide greater safety					
"	312	F. Program for installing guardrails at hazardous locations					
"	312	G. Update guardrails					
<p>Goals established by these 61 political subdivisions to provide safe streets and highways include the following: Assume that existing streets and highways are maintained in a condition that promotes safety; assure that capital improvements either to modernize roads or to provide new facilities meet approved safety standards; assure that appropriate precautions are taken to protect passing motorists as well as highway workers from accident involvement at highway construction sites; reduce accidents with emphasis on overhead and sight distance restrictions.</p> <p>In order to accomplish these goals the cities throughout Virginia plan to develop and</p>		<p>11. COST BY TASK D-G Cost included in total cost of task No. 3</p>					
		<p>12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES</p>					

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia		2. TITLE		Highway Design, Construction and Maintenance (Cities)		3. NO. 46-73-12-03		HD-73-361		4. DATE		4-1-72							
5. DRAFTED BY W. L. Howard APPROVED BY J. T. Hanna		1971 FY-2		1972 FY-1		FISCAL YEAR 19__73		1st Q		2nd Q		3rd Q		4th Q		TOTAL		1974 FY+1		1975 FY+2	
6a. EFFECTIVENESS																					
6b. OUTPUT		C		V																	
7. RESP. VDH - HSD Cities - HSD		8. STD. 312 312		9. TASKS & MILESTONES 4. Review design criteria 5. Bridge inspection program on all city bridges not under the jurisdiction of the VDH. One full-time bridge engineer		Review Develop		Review Approve Imple.		Review Imple.		Review Imple.		Review Imple.		Review Imple.		Review Imple.		Review Imple.	
Implement the following programs: 1. Establish means of communications with all city agencies, with the immediate task of ac- quiring radio equipment capable of monitoring other city frequencies; 2. Install electronic warning devices near overhead obstructions; 3. Remove sight distance obstructions where accident experience has been great; 4. Rebuild arterial routes into 4 lane streets; 5. Adopt ordinances requiring commercial entrances to meet state highway standards; 6. Construct parking garages to eliminate on street parking; 7. Establish needs; 8. Improve street lighting and street paving in locations where the pave- ment is slick; 9. Develop proper procedures for roadway and roadside maintenance; 10. Con- struct already planned loops and roadways;		11. COST BY TASK 4. Review design criteria 5. Bridge inspection program for city bridges. Hire consultant.		0 0		0 0		.75 3.75		.75 3.75		.75 3.75		.75 3.75		3 15		6 16		6 17	
12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES																					

1423

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. Highway Design, Construction Title and Maintenance (Cities)	3. NO. HD-73-361 46-73-12-04	4. DATE 4-1-72
5. DRAFTED BY W. L. Howard APPROVED BY J. T. Hanna		1971 FY-2	1972 FY-1	FISCAL YEAR 1973 1st Q 2nd Q 3rd Q 4th Q TOTAL	1974 FY+1 1975 FY+2
6a. EFFECTIVENESS					
6b. OUTPUT	C				
	V				
7. RESP.	8. STD.	9. TASKS & MILESTONES			
Cities	312	6. Electronic warning devices near overhead obstructions All state funds	Install	Install	Install
Dept. of Public Works	312	7. Remove sight distance obstructions where accident ex- perience has been great. No 402 funding	Survey Study	Recom. Rebuild	Recom. Rebuild
Dept. of Public Works	312	8. Rebuild arterial routes into 4 lane streets. No 402 funds			
Cities	312	9. Adopt ordinances requiring commercial entrances to meet state highway standards. No cost	Study	Adopt	Imple.
11. Survey railroad grade crossings and rec- omend safety features; 12. Study hazardous locations and establish priorities where guard- rails are needed; 13. Hire personnel and pro- vide proper training and equipment; 14. Employ competent structural engineers to make in- spections of all bridges not under the juris- diction of the VDH; 15. Install signs, at free- way interchanges, directing motorists to hospitals having emergency care capabilities. In addition work continues on a data system that will enable the cities to evaluate their programs more effectively.		11. COST BY TASK 6-9 Cost shown with design, con- struction and maintenance figures. Cost will not include 402 funding.	Costs Not Available		
12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES					

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN			1. State of Virginia		2. TITLE		Highway Design, Construction and Maintenance (Cities)				3. NO		HD-73-361 46-73-12-05		4. DATE		4-1-72							
5. DRAFTED BY W. L. Howard APPROVED BY J. T. Hanna			1971 FY-2		1972 FY-1		FISCAL YEAR 1973				1st Q		2nd Q		3rd Q		4th Q		TOTAL		1974 FY+1		1975 FY+2	
6a. EFFECTIVENESS			C																					
6b. OUTPUT			V																					
7. RESP.			8. STD.		9. TASKS & MILESTONES																			
Cities	312		10. Construct parking garages (cities)																					
Cities	312		11. Communications network																					
Cities	312		12. Build loops and roadways																					
HSD	312		13. Traffic Engineering Seminars - 313																					
									</															





HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia		Highway Design, Construction 2. TITLE and Maintenance (Cities)		HD-73-361 3. NO. 46-73-12-07		4. DATE 4-1-72	
5. DRAFTED BY W. L. Howard APPROVED BY J. T. Hanna		1971 FY-2		1972 FY-1		FISCAL YEAR 1973 1st Q 2nd Q 3rd Q 4th Q		TOTAL	
6a. EFFECTIVENESS									
6b. OUTPUT		C		V					
7. RESP.	8. STD.	9. TASKS & MILESTONES							
City Government	312	14. G. Civil engineers 10% of H. Draftsman J. Traffic director 1/5 time K. Secretaries \$1200 + a year (time spent)	20 30 30 61	20 35 30 61	25 40 30 61	25 40 30 61	25 40 30 61	25 40 30 61	35 55 45 61
		11. COST BY TASK \$(000)	28 180 90 73.2	28 210 90 76.2	8.75 60 22.5 20	8.75 60 22.5 20	8.75 60 22.5 20	35 240 90 80	42 300 120 85
		12. TOTAL COST \$(000)							
		LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES							

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN			1. State of Virginia		Highway Design, Construction 2. TITLE and Maintenance (Cities)		HD-73-361 3. NO. 46-73-12-08		4. DATE 4-1-72		
6a. EFFECTIVENESS			5. DRAFTED BY W. L. Howard APPROVED BY J. T. Hanna				FISCAL YEAR 1973				
					1971 FY-2		1972 FY-1		1973 4th Q		
6b. OUTPUT											
7. RESP. Local Political Subdivision			8. STD. 312		9. TASKS & MILESTONES 15. Procure equipment A. Communication network (console) \$30,000 B. Portable radios (two-way) \$1,200 each C. Revolving lights \$50 each D. Traffic cones \$3 each E. Barricades with flashers \$50 each F. Station wagons \$3,500 each G. Two man platform truck \$8,500 each H. Senior portable vehicle traffic counter \$600 each I. Portable radar speed measuring device \$1,200 J. Plane table surveying equip. set \$1,200 K. Office equipment and supplies L. Paint marking machines \$3,000 each		0 50 60 1,000 50 10 3 10 5 4	0 60 80 2,900 80 20 8 15 10 8	Bids " " " " " " " " " "	3 240 120 3,000 180 30 10 30 20 20	2 50 120 3,000 100 20 10 15 25 15
10. DESCRIPTION			11. COST BY TASK \$(000) 15. Procure equipment A-L		298.3		441.6		Bids 840		0 0 840 547 509
			12. TOTAL COST \$(000) LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES								

HIGHWAY SAFETY PROGRAM SUBELEMENT SUPPLEMENT		1. State of Virginia		2. TITLE and Maintenance (Cities) 3. No. 4-1-72 4. DATE 4-1-72										Highway Design, Construction HD-50-361	
		TOTAL		TASKS											
		1	2	3	4	5	6	7	8	9	10				
13.	D Standard: 312														
I	Total \$(000)	5	5	100	3	15					300				
S	Federal	5	5	100	3	15					0				
T	To Localities	5	5	100	3	15					0				
R	Prev. Obligations	0	0	0	0	0					0				
	New Obligations	128	5	100	3	15					0				
I	Standard:														
B	Total														
U	Federal														
T	To Localities														
I	Prev. Obligations														
O	New Obligations														
N	Standard:														
	Total														
B	Federal														
Y	To Localities														
	Prev. Obligations														
	New Obligations														
S	Standard:														
T	Total														
A	Federal														
N	To Localities														
D	Prev. Obligations														
	New Obligations														
A	Total														
R	Federal														
D	To Localities														
	Prev. Obligations														
14.	Local Costs by Object														
	Salaries														
	Per Diem and Travel														
	Contracts														
	Equipment														
	Supplies														
	Maintenance and Operations														
	Total														

HIGHWAY SAFETY PROGRAM SUBELEMENT SUPPLEMENT		1. State of Virginia		2. TITLE		Highway Design, Con- struction and Maintenance		3, No. 46-73-12-10		4. DATE: 4-1-72	
		TOTAL		TASKS							
13.	D Standard: 312										
	I Total \$(000)										
	S Federal		33,295	840							
	T To Localities										
	R Prev. Obligations			0							
	New Obligations										
	I Standard:										
	B Total										
	U Federal										
	T To Localities										
	I Prev. Obligations										
	O New Obligations										
	N Standard:										
	Total										
	B Federal										
	Y To Localities										
	Prev. Obligations										
	New Obligations										
	S Standard:										
	Total										
	A Federal										
	N To Localities										
	D Prev. Obligations										
	New Obligations										
	A Total										
	R Federal										
	D To Localities										
	Prev. Obligations										
14.	Local Costs by Object										
	Salaries										
	Per Diem and Travel										
	Contracts										
	Equipment										
	Supplies										
	Maintenance and Operations										
	Total										

EFFECTIVENESS SUPPLEMENT  
TO THE SUBELEMENT

Title and No. <u>HD-73-361</u> 46-73-12-11 Highway Design, Construction and Maintenance	Date 4-1-72	19 67 FY-2	19 68 FY-1	Fiscal Year 69					19 70 FY+1	19 71 FY+2
				1st Qt.	2nd Qt.	3rd Qt.	4th Qt.	Total		
6a. EFFECTIVENESS										
Accidents										
Deaths										
Economic Loss										
Due to roadway design defects										
1.										
Road Defects Accidents										
1. Under repair		860	829					791	1129	
2. Loose material		1324	1458					1572	1619	
3. Holes in road		430	432					533	618	
4. Soft or low shoulders		974	1028					1103	1146	
2.										
Road Defects Fatalities										
1. Under repair		9	11					10	41	
2. Loose material		7	16					11	6	
3. Holes in road		5	1					2	2	
4. Soft or low shoulders		13	11					16	14	
3.										
Alignment of Road Accidents										
1. Level road		20857	22782					25257	26951	
2. Level curve		79	7902					8500	8442	
3. On grade straight		1' 02	12437					13705	14308	
4.										
4. On grade curve		9354	10299					11062	11141	
5. Hillcrest straight		1' 54	1977					2183	2369	
6. Hillcrest curve		833	884					1050	977	
7. Dip straight		535	577					641	680	
8. Dip curve		310	394					435	423	
5.										
Alignment of Road Fatalities										
1. Level road		230	247					256	230	
2. Level road curve		137	141					164	150	
3. On grade straight		161	158					182	164	
4. On grade curve		175	166					196	186	
6.										

EFFECTIVENESS SUPPLEMENT  
TO THE SUBELEMENT

Title and No. <u>HD-73-361</u> <u>46-73-12-12</u> Highway Design, Construction and Maintenance (Continued)	Date 4-1-72	19 67	19 68	Fiscal Year 1969				1970	19 71
		FY-2	FY-1	1st Qt.	2nd Qt.	3rd Qt.	4th Qt.	Total	FY+1
6a. EFFECTIVENESS									
Alignment of Road Fatalities									
5. Hillcrest straight		15	22					29	27
6. Hillcrest curve		13	8					13	12
7. Dip Straight		5	8					5	6
7. 8. Dip curve		2	3					4	2
Character of Location Accidents									
1. Street or highway intersection		14205	16139					17752	18934
2. Alley or driveway intersection		6899	7525					8202	8545
3. At railroad crossing		56	92					67	57
8. 4. Not at intersection		31519	34048					37386	38194
Character of Location Fatalities									
1. Street or highway intersection		79	75					94	87
2. Alley or driveway		36	24					43	46
3. Railroad crossing		7	10					5	7
9. 4. Not at intersection		617	648					712	637
Kind of Locality Accidents									
1. Business or industrial district		8478	9437					10613	11669
2. Residential		9924	11070					12055	13054
3. School or playground zone		501	630					652	688
10. 4. Open country		32908	35641					38882	39241
Kind of Locality Fatalities									
1. Business or industrial district		43	39					31	44
2. Residential		57	45					73	56
3. School or playground zone		3	5					7	2
11. 4. Open county		636	661					735	668



HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	Highway Design, Construction and Maintenance				3. NO. HD-73-362 NO. 46-73-12-02	4. DATE 1-15-72	
		5. DRAFTED BY APPROVED BY	1971 FY-2	1972 FY-1	FISCAL YEAR 1973			1974 FY-1	1975 FY-2
		F. L. Burroughs J. T. Hanna	347	345	1st Q	2nd Q	3rd Q	4th Q	TOTAL
6a. EFFECTIVENESS	Accident Frequency Rate/100 Million Vehicle Miles on State Highway System								
6b. OUTPUT	C Construction; % of Highway System V Construction; Miles		0.87 442	0.72 367					1.38 711.04
7. RESP.	8. STD.	9. TASKS & MILESTONES							
VDH	312	2. Construction (Miles) A. Interstate System B. Primary System C. Secondary System D. Urban System	96.9 154.9 172.2 16.8	33.1 150 165.6 18.5	11.3 37.5 184.2 4.0	11.3 37.5 125.5 4.0	11.4 37.5 135.1 4.0	11.4 37.5 135.1 4.0	45.4 150.0 500.0 16.0
VDH	312	3. Administration A. Interstate System B. Primary System C. Secondary System D. Urban System							60.5 150.0 528.8 16.0
10. DESCRIPTION		11. COST BY TASK					(THOUSANDS)		
		A. -1. Interstate System	127,451	113,700	24,300	26,400	26,800	29,100	106,600
		2. Primary System	81,261	84,500	21,051	21,051	21,051	21,051	84,204
		3. Secondary System	25,386	25,615	16,800	11,400	5,000	12,300	45,500
		4. Urban System	32,889	34,200	6,557	6,557	6,558	6,558	26,230
		B. - 1. Interstate System	12,969	11,531	2,478	2,693	2,733	2,968	10,872
		2. Primary System	8,264	8,604	2,147	2,147	2,147	2,147	8,588
		3. Secondary System	2,693	2,619	1,713	1,169	610	1,264	4,639
		4. Urban System	3,341	3,478	669	669	669	669	2,676
		LOCAL SHARE							
		STATE SHARE							
		FEDERAL SHARE							
		TO LOCALITIES							



HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE	Highway Design, Construc- tion and Maintenance				3. NO. 46-73-12-03	HD-73 362	4. DATE 1-15-72
5. DRAFTED BY C. O. Leigh APPROVED BY J. T. Hanna		1971 FY-2	1972 FY-1	1st Q	2nd Q	3rd Q	4th Q	TOTAL	1974 FY+1	1975 FY+2
6a. EFFECTIVENESS	Accident Frequency Rate/100 Million Vehicular Miles on State Highway System	347	345					343	341	339
6b. OUTPUT	C % of State Highway Serviced V Number of Miles Serviced	100 50,977	100 51,183					100 51,445	100 51,691	100 51,890
7. RESP.	8. STD.	9. TASKS & MILESTONES								
VTM	312	747	793	223	223	224	225	895	991	1,040
		7,780	7,790	1,950	1,950	1,950	1,950	7,900	7,900	7,800
		42,450	42,600	10,687	10,687	10,688	10,688	42,750	42,900	43,050
10. DESCRIPTION		11. COST BY TASK								
		111.								
		7,400	8,300	2,100	2,100	2,200	2,100	8,500	9,200	10,200
		24,138	25,200	6,600	6,600	6,700	6,500	26,500	27,700	29,000
		36,114	37,600	9,700	9,700	10,000	9,700	39,100	41,700	44,300
		12. TOTAL COST								
		LOCAL SHARE								
		STATE SHARE								
		FEDERAL SHARE								
		TO LOCALITIES								

HIGHWAY SAFETY PROGRAM SUBELEMENT SUPPLEMENT		State of Virginia		2. TITLE and Maintenance		HD-73-362 3. No. 46-73-12-04		4. DATE 1-15-72				
		TASKS										
		TOTAL	1	2	3	4	5	6	7	8	9	10
13.	D Standard: 312											
I	Total \$(000)	375,825	12,416	289,309	74,107							
S	Federal											
T	To Localities											
R	Prev. Obligations											
	New Obligations											
I	Standard:											
B	Total											
U	Federal											
T	To Localities											
I	Prev. Obligations											
O	New Obligations											
N	Standard:											
	Total											
B	Federal											
Y	To Localities											
	Prev. Obligations											
	New Obligations											
S	Standard:											
T	Total											
A	Federal											
N	To Localities											
D	Prev. Obligations											
	New Obligations											
A	Total											
R	Federal											
D	To Localities											
	Prev. Obligations											
14.	Local Costs by Object											
	Salaries											
	Per Diem and Travel											
	Contracts											
	Equipment											
	Supplies											
	Maintenance and Operations											
	Total											

## HIGHWAY DESIGN, CONSTRUCTION AND MAINTENANCE

The design, construction and maintenance of highways, streets, and roads in Virginia are currently under the management of two levels of government. The Virginia Department of Highways has jurisdiction over all highways within the 171 municipalities which have populations of less than or equal to 3,500. This amounts to over 50,000 miles of highways. The remaining 10,000 miles of roadways are within the jurisdiction of the cities with populations of over 3,500, which also includes the counties of Arlington and Henrico. There are 50 municipalities and two counties which design, construct, and maintain their own highways. The Department of Highways works with these municipalities in this endeavor.

In Virginia, the cities must meet the design standards of the Virginia Department of Highways if they wish the Department to participate in the maintenance of their roads. Therefore, most of the streets and roads in Virginia comply with Highway Department standards. Even with this restriction placed upon the cities, there are still lacunal areas within the design, construction and maintenance of roads not under the jurisdiction of the Department of Highways. This is evidenced by the fact that last year 51% of the highway accidents occurred on the roads not under the jurisdiction of the Highway Department; yet, city streets constitute only about 11% of the highway system.

In order to eliminate the accident problem within the cities, the Highway Safety Division plans to work with the cities in establishing programs in hazardous areas. Programs in pavement skid resistance, the elimination of hazardous fixed objects, the use of breakaway structures for signs, and signals and lighting will be developed by consulting firms. In addition the state plans to work with consultants in programs to improve hazardous railroad grade crossings and to improve maintenance procedures.



Programs for installing guardrails at hazardous locations and for the updating of guardrails will be developed.

It is anticipated that the state will employ structural engineers for the inspection of all bridges within the cities.

The cities responsible for their own roads have various programs to ensure that existing streets and highways are maintained in a condition that promotes safety and ensures that any capital improvements either to modernize roads or to provide new facilities meet approved safety standards. These cities also are seeking to protect motorists from accident involvement at highway construction sites and are seeking to reduce accidents caused by overhead and sight distance restrictions. To implement these programs, the cities plan to install electronic warning devices near overhead obstructions and to remove sight distance obstructions where accident experience has been great. Steps are also being taken to improve street lighting and street paving in certain locations, and to study hazardous locations. The cities also plan to hire additional personnel and provide proper training and equipment.

In addition, a data system is being developed to enable the cities to evaluate their programs more effectively.





HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia		2. TITLE/Traffic Control Devices		CD-73-361 NO-46-73-13-02				4. DATE 4-1-72	
5. DRAFTED BY W. L. Howard APPROVED BY J. T. Hanna		1971 FY-2		1972 FY-1		FISCAL YEAR 19 73 1st Q 2nd Q 3rd Q 4th Q				TOTAL 19 74 FY+1 19 75 FY+2	
6a. EFFECTIVENESS											
6b. OUTPUT		C V									
7. RESP.	8. STD.	9. TASKS & MILESTONES									
		2. (Continued) C. Study roadway systems to determine where traffic engineering improvements can contribute to safety. D. Development of before and after studies (program by consultants) E. Establishment of a TCD maintenance program for the cities F. Develop program for speed zone studies									
HSD	313	3. Training A. Training session for traffic engineers at VPI (No. trained) B. Traffic engineering seminars		20 0		25 1		0 1		25 0 2	
Will assure the full and proper application of modern traffic engineering principles and uniform standards for traffic control. At the present time many of our municipalities not under the jurisdiction of the Virginia Department of Highways are unable to justify a full-time traffic engineering staff thus leaving a lacuna in the area of traffic engineering services. Programs that will be initiated by the Highway Safety Division will include: 1. The hiring of traffic engineers to work with those jurisdictions unable to justify a full-time traffic engineering staff. 2. Establishment of a training program for upgrading		11. COST BY TASK 3. Training		14		18		5		2.5 2.5 15	
		12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES								20 25	



the skills of practicing engineers, and provision of basic instruction in traffic engineering techniques to subprofessionals and technicians.

3. Establish a program for a complete inventory of all TCD in every city to determine needs and deficiencies.
4. A periodic review of existing traffic control devices, including a systematic upgrading of substandard devices to conform with standards issued or endorsed by the FHWA.
5. Establish a maintenance program to insure proper operations and timely repair of control devices, including daytime and nighttime inspection.
6. Initiate programs utilizing traffic engineering manpower.

Several communities are presently installing Opticom, which should reduce the amount of time required by fire department vehicles and ambulances to reach the emergency situation and at the same time prevent congestion and hazardous conditions at major intersections.

The Traffic Records Committee continues to work on a state comprehensive traffic records system that will enable us to evaluate our programs more effectively.

HIGHWAY SAFETY PROGRAM SUBELEMENT SUPPLEMENT	1. State of Virginia		2. TITLE Traffic Control Devices 3. No46-73-13-04 4. DATE4-1-72									
	TOTAL	TASKS										
		1	2	3	4	5	6	7	8	9	10	
13. D Standard: 313 I Total (000) S Federal T To Localities R Prev. Obligations New Obligations  I Standard: B Total U Federal T To Localities I Prev. Obligations O New Obligations  N Standard: Total Federal To Localities Y Prev. Obligations New Obligations  S Standard: T Total A Federal N To Localities D Prev. Obligations New Obligations  A Total R Federal D To Localities Prev. Obligations	115	100	15									
	115	100	15									
	115	100	15									
	0	0	0									
	115	100	15									
14. Local Costs by Object Salaries Per Diem and Travel Contracts Equipment Supplies Maintenance and Operations Total												

EFFECTIVENESS SUPPLEMENT  
TO THE SUBELEMENT

Title and No. <u>CD-73-361</u> <u>46-73-13-05</u>		Date	19 <u>67</u>	19 <u>68</u>	Fiscal Year 1969				1970	19 <u>71</u>
Traffic Control Devices		4-1-72	FY-2	FY-1	1st Qt.	2nd Qt.	3rd Qt.	4th Qt.	Total	FY+1 FY+2
6a. EFFECTIVENESS										
Number of accidents and deaths at improved traffic signal locations.										
1.										
Number of accidents at traffic control locations										
1.	Traffic lanes marked		18,908	21,248	23,752					24,578
2.	Yield signs		1,142	1,222	1,285					1,451
3.	Automatic stop and go signals		2,985	3,471	4,034					4,458
2.	4. Stop sign or signal		5,379	5,762	6,512					7,505
	5. Slow sign		1,389	1,357	1,416					1,358
	6. Traffic officer		181	165	194					223
	7. No passing lines		2,695	2,778	2,792					2,818
	8. Railroad watchman		6	9	8					7
3.	9. Railroad gates or signals		56	69	87					60
	10. No control present		18,006	19,567	21,052					21,128
	11. One way street		667	680	667					705
4.										
Number of fatalities at traffic control locations										
	1. Traffic lanes marked		417	425	488					439
	2. Yield signs		4	3	4					0
5.	3. Automatic stop and go signals		7	4	8					11
	4. Stop sign or signal		39	36	47					45
	5. Slow sign		33	35	23					30
	6. Traffic officer		1	1	0					2
	7. No passing lines		58	72	61					61
	8. Railroad watchman		0	1	0					0
6.										

EFFECTIVENESS SUPPLEMENT  
TO THE SUBELEMENT

Title and No. <u>CD-73-361</u> <u>46-73-13-06</u> Traffic Control Devices (Continued)	Date 4-1-72	Fiscal Year 1969					19 67	19 68	19 70				19 71
		1st Qt.	2nd Qt.	3rd Qt.	4th Qt.	Total	FY-2	FY-1	FY+1	FY+2			FY+2
6a. EFFECTIVENESS													
1. 9. Railroad gates or signals 10. No control present 11. One way street		8 204 12					3 156 16	0 159 12	2 170 11				
2. Total accidents at traffic control locations						61,799	5,414	56,328	64,291				
3. Total fatalities at traffic control locations						1,111	734	748	771				
4.													
5.													
6.													

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE Traffic Control Devices VDH (FHWA)	3. NO. CD-73-362 46-73-13-01	4. DATE 4-1-72
5. DRAFTED BY Jesse Bullock (WLH) APPROVED BY John T. Hanna		1971 FY-2	1972 FY-1	FISCAL YEAR 1973 1st Q 2nd Q 3rd Q 4th Q TOTAL	1974 FY+1 1975 FY+2
6a. EFFECTIVENESS	No. of accidents at improved traffic signal locations since 1969				
6b. OUTPUT	C % of traffic signal locations improved since 1969 V No. of traffic signal locations improved				
7. RESP.	8. STD.	9. TASKS & MILESTONES			
VDH	313	1. Develop a program to study accident prone locations after improvements have been made			
VDH	313	2. Personnel			
		A. Traffic Eng. "A" (\$12,500)			
		B. Traffic Eng. "C" (\$14,500)			
		C. Clerk Steno "C" (\$6,500)			
		D. Maintenance Personnel			
		E. Pavement Marking (No. of Personnel)			
		F. Traffic Signal Personnel (No.)			
VDH	313	3. Equipment (Procurement)			
		A. Paint Trucks (\$25,000)			
		B. Pickup Trucks \$4,000			
10. DESCRIPTION: Our long-term goal in this standard area is to reduce the number of accidents including fatalities, personal injuries and property damage due to lack of and/or improper control devices throughout the state. We plan to improve our program by continuing to improve and update all traffic control devices as need demands. It is our policy, upon notice of a high accident location, to investigate said location, with the use of specially trained personnel, and make recommendations accordingly. Breakaway signs are now installed at all new sign locations and also where replacements have to be made. The Virginia Department		11. COST BY TASK \$(000)			
		2. Personnel			
		12. TOTAL COST \$(000)			
		LOCAL SHARE			
		STATE SHARE			
		FEDERAL SHARE			
		TO LOCALITIES			
		*Not			
		402 Federal funds.			

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN			1. State of Virginia		2. TITLE		Traffic Control Devices VDH (FHWA)		3. NO. CD-73-362 46-73-13-02		4. DATE 4-1-72					
6a. EFFECTIVENESS			5. DRAFTED BY APPROVED BY		Jesse Bullock (WLH) John T. Hanna		1971 FY-2		1972 FY-1		FISCAL YEAR 1973 1st Q 2nd Q 3rd Q 4th Q TOTAL		1974 FY+1		1975 FY+2	
			6b. OUTPUT		C V											
7. RESP.	8. STD.	9. TASKS & MILESTONES														
VDH	313	3. Equipment C. Electrical Trucks (\$10,000) D. Sign Trucks(\$6,000) E. Pole Trucks (\$35,000) F. Drills (\$500) G. Compressor (105 cfm \$8,000)	4 5 0 3 3	2 6 0 3 3	1 1 0 1 1	0 1 0 1 1	0 2 0 1 1	2 5 0 4 4	2 5 0 4 4	2 5 0 4 4	2 5 0 4 4	2 5 0 4 4	2 5 0 4 4	2 5 0 4 4	2 5 0 4 4	
VDH	313	4. Department Operations A. Supplies (pencils, paper, etc.) B. Rent(No. Months) C. Travel	12	12	3	3	3	3	12	12	12	12	12	12	12	
of Highways has complete control over all traf- fic control devices within its jurisdiction, which includes all but two of Virginia's counties. It has limited authority in the cities. We also plan to work with the Traffic Records Com- mittee to develop a more effective evaluation of our program by keeping records on trafficsignals that have been installed or improved since 1969. We anticipate more effective evaluation of our program upon completion of the state's new traf- fic records data system.			11. COST BY TASK \$(000)		159	209	54.25	54.25	54.25	54.25	54.25	217	250	270		
			3. Equipment 4. Dept. Operation Supplies Rent		2.8 3	2.9 3	.75 .125	.75 .125	.75 .125	.75 .125	3 .500	3.2 .550	3.5 .600			
12. TOTAL COST \$(000) LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES																

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE Devices (WLH)	Traffic Control Devices VDH (FHW)		3. NO. 46-73-13-03	CD-73-362	DATE 4-1-72	
5. DRAFTED BY APPROVED BY		Jesse Bullock (WLH) John T. Hanna		1971 FY-2	1972 FY-1	FISCAL YEAR 1973 1st Q 2nd Q 3rd Q 4th Q	TOTAL	1974 FY+1	1975 FY+2
6a. EFFECTIVENESS									
6b. OUTPUT									
7. RESP.	8. STD.	9. TASKS & MILESTONES							
VDH	313	5. Training (on the job) (no cost)							
		A. Traffic Sign Maintenance (no cost)							
		B. Painters							
		C. Signs (Installation)							
		D. Signals							
		E. Signal Installations							
		6. Installment of Traffic Control Devices							
		A. Primary							
		1. Signs at \$30 each							
		2. Signals at \$7,500 each							
		B. Interstate							
		1. Signs at \$300 each							
		2. Signals at \$1,300 each							
10.		11. COST BY TASK \$(000)							
		6. Install Traffic Control Devices							
		Primary Signs							
		Interstate Signs							
		Signals							
		12. TOTAL COST							
		LOCAL SHARE							
		STATE SHARE							
		FEDERAL SHARE							
		TO LOCALITIES							





HIGHWAY SAFETY PROGRAM SUBELEMENT SUPPLEMENT		1. State of Virginia		(FHWA) 2. TITLE Traffic Control Devices										CD-73-362 3. No. 46-73-13-05		4. DATE 4-1-72	
		TOTAL	1	2	3	4	5	6	7	8	9	10					
13.	D Standard: I Total \$(000) S Federal T To Localities R Prev. Obligations New Obligations	4,622		3,200	217	3.5		1,201.3									
	I Standard: B Total U Federal T To Localities I Prev. Obligations O New Obligations N Standard: Total Federal To Localities Prev. Obligations New Obligations																
	B Y																
	S Standard: T Total A Federal N To Localities D Prev. Obligations New Obligations																
	A Total R Federal D To Localities Prev. Obligations																
14.	Local Costs by Object Salaries Per Diem and Travel Contracts Equipment Supplies Maintenance and Operations Total																

EFFECTIVENESS SUPPLEMENT  
TO THE SUBELEMENT

Title and No. <u>CD-73-362</u> <u>46-73-13-06</u>		Date	19 67	19 68	Fiscal Year 1969				1970	19 71
Traffic Control Devices		4-1-72	FY-2	FY-1	1st Qt.	2nd Qt.	3rd Qt.	4th Qt.	Total	FY+1 FY+2
6a. EFFECTIVENESS										
Number of accidents and deaths at improved traffic signal location.										
1.										
Number of accidents at traffic control locations										
1.	Traffic lanes marked		18,908	21,248	23,752					24,578
2.	Yield Signs		1,142	1,222	1,285					1,451
3.	Automatic stop and go signal		2,985	3,471	4,034					4,458
4.	Stop sign or signal		5,379	5,762	6,512					7,505
5.	Slow sign		1,389	1,357	1,416					1,358
6.	Traffic officer		181	165	194					223
7.	No passing lines		2,695	2,778	2,792					2,818
8.	Railroad watchman		6	9	8					7
9.	Railroad gates or signals		56	69	87					60
10.	No control present		18,006	19,567	21,052					21,128
11.	One way street		667	680	667					705
4.										
Fatalities										
1.	Traffic lanes marked		417	425	488					439
2.	Yield Signs		4	3	4					0
3.	Automatic stop and go signal		7	4	8					11
4.	Stop sign or signal		39	36	47					45
5.	Slow sign		33	35	23					30
6.	Traffic officer		1	1	0					2
7.	No passing lines		58	72	61					61
8.	Railroad watchman		0	1	0					0

EFFECTIVENESS SUPPLEMENT  
TO THE SUBELEMENT

Title and No. <u>CD-73-362 -</u> <u>46-73-13-07</u>	Date <u>4-1-72</u>	1967 FY-2	1968 FY-1	Fiscal Year 1969				1970 FY+1	1971 FY+2
				1st Qt.	2nd Qt.	3rd Qt.	4th Qt.		
6a. EFFECTIVENESS									
Fatalities									
9. Railroad gates or signal		3	0	8				2	
10. No control present		156	159	204				170	
11. One way street		16	12	12				11	
1.									
Total Accident at traffic control locations		5,414	56,328					64,291	
2.									
Total fatalities at traffic control locations		734	748					771	
3.									
4.									
5.									
6.									

## TRAFFIC CONTROL DEVICES

Section 46.1-173 of the Code of Virginia authorizes the State Highway Commission to classify, designate, and mark state highways and provide a uniform system of marking and signing such highways, and provides that such system of marking and signing shall correlate with and so far as possible conform to the system adopted in other states.

Section 46.1-187 of the Virginia Code provides that traffic signs erected on and after January 1, 1959, and traffic signals and markings placed or erected on and after January 1, 1969, by local authorities shall conform in size, design, and color to those erected for the same purpose by the State Highway Department. Also, Section 33-36 of the Virginia Code provides that all markings and traffic signals installed or erected by towns on primary roads maintained by the State Highway Department shall first be approved by the State Highway Commission.

The Virginia Manual of Uniform Traffic Control Devices for Streets and Highways conforms in all major respects to the current manual on Uniform Traffic Control Devices for Streets and Highways (as prepared by the National Joint Committee on Uniform Traffic Control Devices), and applies to all traffic control devices erected on the state highway system.

In Virginia, the major problem with the traffic control devices program lies with the municipalities not under the jurisdiction of the Virginia Department of Highways. Many of the localities lack sufficient funds for the development of a program that would eliminate these problems. There is also a lack of qualified traffic engineers to carry out the necessary programs for uniform traffic control devices.

In order to alleviate this problem, the HSD plans to hire consultants to work with those municipalities unable to justify a full-time traffic engineering staff. Provisions

for upgrading the skills of practicing traffic engineers, and providing basic instruction in traffic engineering techniques to subprofessionals and technicians will also be a part of the highway safety program.

The traffic control devices program at the local level will include:

- (1) An inventory of traffic control devices.
- (2) Periodic review of devices.
- (3) A maintenance schedule adequate to ensure the proper operation and timely repair of control devices, including daytime and nighttime inspections. Additional programs (as funds permit) will be developed by the consultants.

The Virginia Department of Highways is in compliance with the standards as they apply to traffic control devices. Below are statements reflecting this compliance.

Standard I. "The program shall provide, as a minimum, that:

A. There is a method:

1. To identify needs and deficiencies of traffic control devices."

The identification and surveillance phase of PPM21-16 established an identity means of determining locations and necessary improvements for traffic control devices. Locations reflected as needing attention on this program are investigated and corrective action taken through installation or changes to existing control devices. In addition, the Department has traffic engineers assigned to its eight construction districts who are in daily contact with specific locations, and corrections are often initiated prior to problems developing.

2. "To assist in developing current and projected programs for maintaining, upgrading, and installing traffic control devices."

The traffic engineers assigned to the construction districts maintain a record of all traffic control devices which show dates of installation, changes and maintenance data. These field engineers have a comprehensive sign maintenance program which provides records indicating cleansing and clear-coating information including the next scheduled maintenance operation.

Standard I. "B. Existing traffic control devices on all streets and highways are upgraded to conform with standards issued or endorsed by the Federal Highway Administrator."

A program has been under way for a number of years to upgrade all traffic control devices in accordance with the standards issued and endorsed by the FHWA. The upgrading program is well under way in the state, and, of course, will be further implemented to conform with the latest manual on Uniform Traffic Control Devices issued by the Department of Transportation.

Standard I. "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."

As previously stated, all new traffic control devices are installed based on engineering studies of the operational characteristics of the location to afford maximum safety and capacity. All such devices conform to the manual of Uniform Traffic Control Devices.

Standard I. "D. There are programs for preventive maintenance, repair, and daytime and nighttime inspection of all traffic control devices."

The previously stated program of maintaining traffic control devices under Roman Numeral, I., A., 2., under this standard applies to this element. In addition, nighttime inspections are conducted on a scheduled basis of all control devices to determine their effectiveness through reflectorization, etc., under actual operational conditions.

Standard I. "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 regulations."

The establishment of speed zones on all highways in the state of Virginia is controlled by the Va. Code Ann., Section 46.1-193. This section requires that any changes in speed limits as established by law shall be based on a traffic and engineering investigation. This investigation encompasses the use of radar speed samples, engineering review, roadway width, alignment and condition, shoulder width and condition, and roadside development. The State Highway Commissioner reviews and approves each speed zone change and records are maintained in the Central Office of the Highway Department.

The Highway Department also sends its engineers to training schools and participates in traffic engineering seminars.











In accomplishing this goal, the Highway Safety Division of Virginia plans to work with local political subdivisions in developing programs that will help reduce the number of pedestrians killed on our highways.

The first area of concentration will be a public information program for the purpose of educating pedestrians, from preschool age to the elderly, as well as drivers. This program will include television spot announcements, posters, radio spots, motion picture films, exhibit material, billboards, bus and mail truck type cards, coloring books, hot dots, and lite-a-bike kits.

At this time pedestrian safety is taught in Virginia schools beginning in the first grade. Safety patrols are formed to assist school children walking to and from school. In addition, adult school crossing guards are employed and stationed at high traffic volume intersections where children must cross.

It is anticipated that a full-time pedestrian safety education coordinator will be hired to work with the cities and towns in developing good safety programs to improve the pedestrian safety program for the entire state.

We also propose to build safety towns to help teach pedestrian safety to everyone.

We will continue our bicycle safety programs, which include reflectorized lite-a-bike kits that make bicycles visible at night, the purchasing of several bicycle testing machines to test bikes for safety features and thus determine whether they are safe enough to be on the streets and highways, and the procurement of bicycles that include a recording of two bicycles talking to each other about bicycle safety.

The HSD, AAA, State Department of Education and persons at the local levels are working together to provide the state with the very best program possible.

The effective evaluation of the program will be available upon completion of the state's new traffic records system being developed by the Traffic Records Committee.

HIGHWAY SAFETY PROGRAM SUBELEMENT SUPPLEMENT		1. State of Virginia		2. TITLE (NHTSA)		Pedestrian Safety (NHTSA)		3. No. 46-73-14-04		PS-73-161 4. DATE: 4/1/72	
		TOTAL		TASKS							
		1	2	3	4	5	6	7	8	9	10
13.	D Standard: 314										
	I Total \$(000)	50	14	3.9		8.75		16.0			
	S Federal	25	7	0		0		14.35			
	T To Localities	25	7	0		0		14.35			
	R Prev. Obligations			0		0					
	N New Obligations	25	7	0		0		14.35			
	I Standard:										
	B Total										
	U Federal										
	T To Localities										
	I Prev. Obligations										
	O New Obligations										
	N Standard:										
	T Total										
	F Federal										
	T To Localities										
	P Prev. Obligations										
	N New Obligations										
	S Standard:										
	T Total										
	A Federal										
	N To Localities										
	D Prev. Obligations										
	N New Obligations										
	A Total										
	R Federal										
	D To Localities										
	P Prev. Obligations										
	N New Obligations										
	A Total										
14.	R Federal										
	D To Localities										
	P Prev. Obligations										
	N New Obligations										
	A Local Costs by Object										
	S Salaries										
	P Per Diem and Travel										
	C Contracts										
	E Equipment										
	S Supplies										
	M Maintenance and Operations										
	T Total										

EFFECTIVENESS SUPPLEMENT  
TO THE SUBELEMENT

Title and No. <u>PS-73-161</u> 46-73-14-05 Pedestrian Safety	Date 4/1/72	19 <u>67</u> FY-2	19 <u>68</u> FY-1	Fiscal Year 1969				19 <u>70</u> FY+1	19 <u>71</u> FY+2
				1st Qt.	2nd Qt.	3rd Qt.	4th Qt.		
6a. EFFECTIVENESS									
Number of pedestrian-vehicle related injuries									
1.									
Urban		1,774	1,817					1,833	
Rural		740	718					776	
2.									
Number of pedestrian-vehicle related deaths									
Urban		84	95					98	
Rural		133	137					142	
3.									
Number of pedestrian-vehicle related deaths among:									
1. Individuals (0-4 years)		15	20					20	
(5-14 years)		42	46					52	
(15-64 years)		120	119					127	
(65+ years)		40	47					41	
4.									
2. Drinking pedestrians									
Urban		10	14					15	
Rural		44	32					33	
5.									
Bicyclists injured - Age									
1. 0-4 years		3	1					5	
2. 5-9 years		83	85					94	
3. 10-14 years		139	129					103	
6.									
4. 15-19 years		35	31					27	
5. 20-24 years		4	2					4	
6. 25-34 years		7	0					5	
7. 35+ years		5	2					8	

EFFECTIVENESS SUPPLEMENT  
TO THE SUBELEMENT

Title and No. PS-73-161 46-73-14-06		Date	1967	1968	Fiscal Year 1969				1970	1971	1972
Pedestrian Safety		4/1/72	FY-2	FY-1	1st Qt.	2nd Qt.	3rd Qt.	4th Qt.	Total	FY+1	FY+2
Ca. EFFECTIVENESS											
Bicyclists Killed		Total									
Age:											
1. 0-4			8	0					6	9	
2. 5-9			0	0					0	0	
3. 10-14			1	1					0	1	
4. 15-19			5	3					3	4	
5. 20-24			0	0					2	1	
6. 25-34			0	0					0	0	
7. 35 and over			2	2					1	1	
Nighttime pedestrian deaths			77	83					88	92	
Daytime pedestrian deaths			140	149					153	148	
								</			





Pedestrian Safety (FHWA)  $\frac{\text{PS-73-162}}{46-73-14-02}$  DESCRIPTION: (Cont.)

development of a manual on pedestrian crossing markings. This manual will be distributed to all local jurisdictions. Safety towns have proven to be very successful in Virginia. There is presently one completed safety town near Richmond, Virginia. Authorities of the Henrico Police Department, who conduct the course, say that their safety town has been most beneficial in the reduction of pedestrian accidents among the young. Because of the success of the safety town in Henrico the H.S.D. plans to continue funding additional safety towns in other areas of high construction.

A data system is being developed by the traffic records committee which will enable us, upon its completion, to evaluate our pedestrian safety program more effectively.

1467

HIGHWAY SAFETY PROGRAM SUBELEMENT SUPPLEMENT		1. State of Virginia		2. TITLE Pedestrian Safety FHWA		3. No. 46-73-14-03		4. DATE 4-1-72				
		TASKS										
		TOTAL	1	2	3	4	5	6	7	8	9	10
13.	D Standard: 314											
I	Total \$(000)	53.0	10	35	3	5						
S	Federal	35.5	10	17.5	3	5						
T	To Localities	35.5	10	17.5	3	5						
R	Prev. Obligations	0	0	0	0	0						
	New Obligations	35.5	10	17.5	3	5						
I	Standard:											
B	Total											
U	Federal											
T	To Localities											
I	Prev. Obligations											
O	New Obligations											
N	Standard:											
	Total											
B	Federal											
Y	To Localities											
	Prev. Obligations											
	New Obligations											
S	Standard:											
T	Total											
A	Federal											
N	To Localities											
D	Prev. Obligations											
	New Obligations											
A	Total											
R	Federal											
D	To Localities											
	Prev. Obligations											
14.	Local Costs by Object											
	Salaries											
	Per Diem and Travel											
	Contracts											
	Equipment											
	Supplies											
	Maintenance and Operations											
	Total											

EFFECTIVENESS SUPPLEMENT  
TO THE SUBELEMENT

1468

Title and No. 46-73-14-04		Date	19 67	1968	Fiscal Year 1969					19 70	19 71
Pedestrian Safety		1-15-72	FY-2	FY-1	1st Qt.	2nd Qt.	3rd Qt.	4th Qt.	Total	FY+1	FY+2
6a. EFFECTIVENESS											
Number of pedestrian — Vehicle related injuries											
Urban			1,774	1,817					1,751	1,833	
Rural			740	718					749	776	
2.											
Number of pedestrian — Vehicle related deaths											
Urban			84	95					94	98	
Rural			133	137					147	142	
3.											
Number of pedestrian — Vehicle related deaths among											
1. Individuals (0 -4 yrs)			15	20					15	20	
(5-14)			42	46					34	52	
(15-64)			120	119					138	127	
(65 +)			40	47					53	41	
4.											
2. Drinking pedestrians											
Urban			10	14					14	15	
Rural			44	32					40	33	
5.											
Bicyclists injured — Age											
1. 0-4			3	1					2	5	
2. 5-9			83	85					86	94	
3. 10-14			139	129					114	103	
4. 15-19			35	31					21	27	
5. 20-24			4	2					2	4	
6. 25-34			7	0					1	5	
7. 35 Over			5	2					5	8	
6.											

EFFECTIVENESS SUPPLEMENT  
TO THE SUBELEMENT

Title and No. 46-73-14-05	Date 1-15-72	1967	1968	Fiscal Year 1969				1970	1971
		FY-2	FY-1	1st Qt.	2nd Qt.	3rd Qt.	4th Qt.	Total	FY+1
Pedestrian Safety									
Ct. EFFECTIVENESS									
Bicyclists Killed	Total	8	6					6	9
Age:									
1. 0-4		0	0					0	0
2. 5-9		1	1					6	1
3. 10-14		5	3					3	4
4. 15-19		0	0					2	1
5. 20-24		0	0					0	0
6. 25-34		0	0					0	2
7. 35 and over		2	2					1	1
Nighttime pedestrian deaths		77	83					88	92
Daytime pedestrian deaths		140	149					153	148

## PEDESTRIAN SAFETY

Perhaps because the number of pedestrian fatalities has decreased over the last generation, programs to minimize traffic safety hazards to the pedestrian have traditionally been assigned low priority in the states. Nationwide 150,000 people were injured in vehicle-pedestrian accidents in 1970. Virginia in 1970 experienced 2,466 vehicle-pedestrian traffic crashes in which 240 pedestrians were killed. Nearly every pedestrian who is struck sustains an injury. These facts make it imperative that the driver maintain the greatest vigilance to protect pedestrians.

On a national level far more pedestrians are injured in urban areas than in rural areas, probably because of the much greater population density in the urban areas. But, a pedestrian struck in a rural area is more likely to be killed because of the generally greater speeds involved. Virginia, having predominantly a rural highway system, reverses the national figures: in 1970 more accidents occurred in rural rather than in urban areas.

The goal of the Pedestrian Safety Program in Virginia is to permanently reduce the number of vehicle-pedestrian accidents. The reduction of rural pedestrian injuries is the first priority. It is felt the major thrust of the program should be educationally and informationally oriented so as to ease the overwhelming job of protecting the pedestrian; a duty relegated for the most part solely to the driver. Though the education of pedestrians has advanced, efforts to change maladaptive behavior patterns have been less than successful.

### Current Programs

The budget for fiscal year 1972 allocated funds for the improvement of pedestrian safety in three areas: informational, educational, and environmental.

The informational campaign in Virginia will be keynoted in 1972 by a stepped-up emphasis on informing the public as to the scope of the problems of a pedestrian in an automobile-oriented society and exactly what the individual can do to alleviate these problems. It is anticipated that this program will be implemented by widespread dissemination of advertising material and talks given by highway safety personnel to local citizen groups. The program also includes demonstrations, news conferences, news stories and public service announcements on radio and television. A full-time pedestrian safety officer will be needed for these efforts. It seems clear that the success of these efforts will depend more on the individual initiative of persons at the grass roots level than it will on the aggregate total allotment of funds. The Highway Safety Division is particularly intent on showing the disproportionate rural involvement in vehicle-pedestrian accidents in the Commonwealth by using public information techniques.

Organizationally similar to the information dissemination program is the educational campaign designed to improve pedestrian safety. The sub-program could be characterized as merely different in degree from the information program. Basically it seeks to inform the public of the dangers to pedestrians from vehicle traffic, but focuses on those who are already in an educational environment. It also attempts to focus more directly on the task, hopefully it can determine through testing exactly how much the audience learns. Elementary school children throughout the state will be treated to safety magic shows which graphically illustrate what can happen to a pedestrian when he tangles with a moving automobile. It is felt that impressing upon the younger age groups the precautions needed to be taken by a pedestrian will decrease accident involvement in future years. The behavior patterns of youths are also more easily modified by psychological training than rigid habits of middle-aged citizens.

Pedestrian safety films to be distributed to schools and civic organizations throughout the state are designed to accomplish the same end as magic shows but to an older audience. These films will probably be most extensively utilized in driver education classes in the high schools.

A novel idea of the Highway Safety Division of Virginia is the establishment of safety towns for use by elementary age school children. Safety towns are reconstructed simulated street patterns designed to facilitate the presentation of basic pedestrian problems in situations as close to the real world as possible. The Police Department of the surrounding jurisdiction educates the area children between the ages of 4 and 8 years by a program divided into five one-hour sessions on consecutive days. At the end of the weekly period the children participate in written tests and practical problems on the safety town site. 7,000 1st graders in the state have completed a similar two-hour program which emphasizes pedestrian safety, school bus safety, bicycle safety, railroad safety and child molestation. The program also utilizes visual aids in teaching the students about pavement markings and playing safely near streets and intersections. The only fully operational safety town is located in Henrico County. Other safety towns are either in the planning or construction stage in Fairfax County, Chesterfield County and Virginia Beach.

The Commonwealth's pedestrian safety program has a further goal in minimizing environmental hazards to protection of the pedestrian. This task must necessarily begin by identification of high pedestrian accident locations. In cities, where it is easier to identify these high risk areas, spot maps are the technique likely to be used. After the high risk areas are identified it will be easy to use that information to develop a manual on pedestrian safety standards. The manual will include recommendations based on the analysis of accident situations and locations by experts who then decide

on necessary physical changes for the sites. These standards should be applicable throughout the state. The physical characteristics to be standardized include visibility, clearances, traffic regulation devices, shoulders and sidewalks.

The long standing program to structure traffic flow and pedestrian movements (particularly as related to elementary school children) will be continued at an increased participatory level. The school safety guards employed by the local police direct traffic flow during school ingress and egress periods while the school patrols (comprised of upper elementary school students) control student pedestrians approaching and leaving the school area.

A new statewide program is designed to improve the visibility of pedestrians to motorists driving at night. The program utilizes reflective stick-on circles called Hot Dots. These dots are attached to books or clothing by pedestrians to increase their visibility to passing drivers. One million Hot Dots have already been distributed by service stations in the urban areas of Virginia. It is anticipated that the program will spread rapidly to other less accessible areas of the state. Field tests of the Hot Dots have shown that they are visible to motorists at distances greater than 500 feet. An experimental group of school children in Richmond not using the Hot Dots were lost in the darkness at about 200 feet. The impetus for the program was stated recently by John Hanna, Director of the Highway Safety Division of Virginia, "The pedestrian is the most ill-equipped of all persons using the highways. Yet this slow, unprotected road user is the only one allowed on public roads at night without a light or reflectorized material."

A part of the Commonwealth's pedestrian safety program utilizes a series of teaching devices designed to decrease accidents between vehicles and bicycles. Experimental studies showing the probability of accidents between automobiles and



bicycles that cause injury have been rare. The problem is complicated by the lack of a rational nationally accepted code that regulates the operation of bicycles. But it seems clear that a significant percentage of the population has at one time or another been involved in an automobile-bicycle collision. The Department of the Interior has documented an increased interest in bicycling expected to continue over the coming decade. It has concluded that bicycling will enjoy a 32% growth rate from 1965 to 1980 and that bicycling has shown the greatest increase of all outdoor sports since 1965. It seems that the anticipated major growth in the use of bicycles should warrant an added administrative effort toward improving bicycle safety.

Virginia will seek to inform that section of the public most likely to be riding bicycles (school age children between the ages of 6 and 14) of the dangers inherent in operating slow moving unprotected bicycles in an automobile-oriented transportation system. This will be accomplished by animated talking bicycles calculated to be both entertaining and educational to the children. It is hoped that redirecting behavior at such an early age will result in safety gains for years to come. The state also will purchase bicycle testing machines which determine whether a bicycle has any safety hazards such as faulty braking systems, unbalanced wheels or loose construction. After training the bicycle rider to operate his bicycle in a safe manner, it is imperative to remove physical impediments (such as faulty, hazardous bicycles) to the goal of accident-free enjoyable bicycle-riding. A "Hot Dots" program for bicycles in the form of Lite-A-Bike Kits will be distributed by the Highway Safety Division throughout the state. They basically furnish reflectorized material to apply to bicycles to improve their roadside visibility.



HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE Police Traffic Services	3. NO. PT-73-471 46-73-15-01	4. DATE 4-1-72
5. DRAFTED BY W. L. Howard APPROVED BY J. T. Hanna		1971 FY-2	1972 FY-1	FISCAL YEAR 1973 1st Q 2nd Q 3rd Q 4th Q TOTAL	1974 FY+1 1975 FY+2
6a. EFFECTIVENESS	See Effectiveness Supplement to the Subelement				
6b. OUTPUT	C No. of Roadways Within Five Min. of Cruising Patrol Car V No. of Citations Issued For Moving Violations				
7. RESP.	8. STD.	9. TASKS & MILESTONES			
Local Police Depts.	315	1. Training (policemen in all cities and counties) A. In-service training B. New recruits (minimum of 200 hr) C. Refresher D. Supervisors E. Accident Investigation F. Pursuit driving training (1 city) G. IACP convention H. Seminar for law enforcement planning officers I. Principles of police management	3,000 400 2,000 1,000 400 NA NA NA NA	3,500 400 3,000 1,999 500 NA NA NA NA	*3,800 * 500 *3,300 *1,300 * 500 1 100 1 100 1 100 1 100
10. DESCRIPTION The ultimate goal of the cities and counties in Virginia is to reduce the number of accidents including fatalities, personal injury and property damage caused by those individuals violating the traffic laws with particular attention on the repeat violator. The lack of sufficient enforcement at high accident locations as well as the lack of training in handling all aspects of enforcement are additional problems faced by our cities and towns. In accomplishing this goal the cities and towns throughout Virginia plan to develop and implement the following programs: (1) the establishment of a minimum of at least		11. COST BY TASK \$(000) 1. Training * Estimated cost	* 1,385 1,701	486.75 486.75	* 1,947 2,849
12. TOTAL COST \$(000) LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES		22,281 22,213 0 68 68	23,258 22,994 0 263.8 263.8	5714.75 5689.25 0 25 25	23,977.2 23,677.2 0 300 300
					25,841 25,341 0 500 500
					26,967 26,367 0 600 600



HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia		2. TITLE		Police Traffic Services				PT-73-471 NO. 46-73-15-02		4. DATE 4-1-72	
5. DRAFTED BY W. L. Howard APPROVED BY J. T. Hanna						1971 FY-2	1972 FY-1	FISCAL YEAR 1973 1st Q 2nd Q 3rd Q 4th Q		TOTAL		1974 FY+1	1975 FY+2
6a. EFFECTIVENESS													
6b. OUTPUT		C											
		V											
7. RESP. Local Political Subdivisions	8. STD. 315	9. TASKS & MILESTONES				4,500 400 4	4,700 400 8	5,000 500 12	5,000 500 12	5,000 500 12	5,300 600 6	5,800 700 8	
10. DESCRIPTION: 200 hour training for all new recruits; (2) refresher traffic training and in-service training courses will be made available to officers performing traffic duties; (3) additional training for supervisory personnel in the fundamentals of organization and administration training techniques and in the use of records; (4) the development of traffic sections within the police departments; (5) traffic records systems; and (6) additional training in all phases of traffic investigation. To further accomplish this goal the cities and counties in Virginia will be hiring additional personnel, purchasing new equipment, and establishing better communications systems for their police work.		11. COST BY TASK \$(000)				19,983	20,443	5,228	5,228	5,228	20,912	21,394	21,700
		2. Personnel											
		12. TOTAL COST \$(000)											
		LOCAL SHARE											
		STATE SHARE											
		FEDERAL SHARE											
		TO LOCALITIES											

1476



HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia		2. TITLE Police Traffic Services				3. NO. <u>PT-73-471</u> <u>46-73-15-04</u>		4. DATE <u>4-1-72</u>	
5. DRAFTED BY <u>W. L. Howard</u> APPROVED BY <u>J. T. Hanna</u>		1971 FY-2	1972 FY-1	1st Q	2nd Q	3rd Q	4th Q	TOTAL	1974 FY+1	1975 FY+2	
6a. EFFECTIVENESS											
6b. OUTPUT		C									
		V									
7. RESP. Local Political Subdivi- sions	8. STD. 315	9. TASKS & MILESTONES 3. Equipment (Continued) G. Polaroid cameras \$170 H. VHF-FM Radios \$800 I. Battery chargers \$200 each J. Measuring wheels \$80 K. Accident kits \$50 L. Motorcycles \$4,000 each M. Tape recorders \$200									
10. DESCRIPTION		11. COST BY TASK \$(000) G. Cameras H. Radios I. Chargers J. Wheels K. Accident kits L. Motorcycles M. Recorders									
		12. TOTAL COST \$(000) LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES									

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia		2. TITLE Police Traffic Services		3. NO. PT-73-471 46-73-15-05		4. DATE 4-1-72		
5. DRAFTED BY W. L. Howard APPROVED BY J. T. Hanna		19 71 FY-2	19 72 FY-1	1st Q	2nd Q	3rd Q	4th Q	TOTAL	19 74 FY+1	19 75 FY+2
6a. EFFECTIVENESS										
6b. OUTPUT										
7. RESP.	8. STD. 315	9. TASKS & MILESTONES								
Local Political Subdivisions		3. Equipment (Continued)								
		500	500	Bids	700	0	0	700	100	200
		NA	NA	Bids	3	0	0	3	10	10
		1,000	1,000	Bids	1,000	0	0	1,000	1,500	2,000
		1,000	1,500	Bids	1,500	0	0	1,500	500	500
		NA	NA	Bids	1	0	0	1	10	10
		100	100	Bids	20	0	0	20	0	0
10. DESCRIPTION		11. COST BY TASK \$(000)								
		N. Tape measures		Bids	24.5	0	0	24.5	3.5	7
		O. Twin Beacon Rays		Bids	.45	0	0	.45	1.5	1.5
		P. Cones		Bids	5	0	0	5	7.5	10
		Q. Blankets		Bids	3	0	0	3	1	1
		R. Scramblers		Bids	.056	0	0	.056	.56	.56
		S. Cameras		Bids	2.8	0	0	2.8	0	0
12. TOTAL COST LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES										



HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE Police Traffic Services	3. NO. 46-73-15-06	4. DATE 4-1-72
5. DRAFTED BY W. L. Howard APPROVED BY J. T. Hanna		FISCAL YEAR 19 73			
		1971 FY-2	1972 FY-1	1st Q 2nd Q 3rd Q 4th Q TOTAL	1974 FY-1
6a. EFFECTIVENESS					
6b. OUTPUT					
7. RESP.	8. STD.	9. TASKS & MILESTONES			
Local Political Subdivisions	315	4. Communications			
		NA 400 50 25	NA 400 50 30	Bids 500 100 10	3 500 100 10
					10 700 100 10
10. DESCRIPTION		11. COST BY TASK \$(000)			
		4. Communications			
		A. Police communicating consoles			
		B. Walkie-Talkies			
		C. Two-way Radios			
		D. Console Equipment			
		E. Misc. radio equipment			
		80 35 199 50	80 35 239 50	Bids 144 100 70 79.5 75	0 0 0 0 0
		12. TOTAL COST			
		LOCAL SHARE			
		STATE SHARE			
		FEDERAL SHARE			
		TO LOCALITIES			



HIGHWAY SAFETY PROGRAM SUBLEMENT SUPPLEMENT		1. State of Virginia		2. TITLE Police Traffic Services		3. No. 46-73-15-08		4. DATE 4-1-72					
		TASKS											
		TOTAL		1	2	3	4	5	6	7	8	9	10
13.	D Standard: 315												
I	Total \$(000)	23,977.2	1,947	20,912	549.7	568.5							
S	Federal	300	100	0	100	100							
T	To Localities	300	100	0	100	100							
R	Prev. Obligations			0	0	0							
	New Obligations	300	100	0	100	100							
I	Standard:												
B	Total												
U	Federal												
T	To Localities												
I	Prev. Obligations												
O	New Obligations												
N	Standard:												
	Total												
B	Federal												
Y	To Localities												
	Prev. Obligations												
	New Obligations												
S	Standard:												
T	Total												
A	Federal												
N	To Localities												
D	Prev. Obligations												
	New Obligations												
A	Total												
R	Federal												
D	To Localities												
	Prev. Obligations												
14.	Local Costs by Object												
	Salaries												
	Per Diem and Travel												
	Contracts												
	Equipment												
	Supplies												
	Maintenance and Operations												
	Total												

EFFECTIVENESS SUPPLEMENT  
TO THE SUBELEMENT

Title and No. <u>PT-73-471</u> <u>Police Traffic Services</u>		Date 4-1-72	1967	1968	1969					1970	1971
					1st Qt.	2nd Qt.	3rd Qt.	4th Qt.	Total		
6a. EFFECTIVENESS											
1. Violations by Drivers											
(1) Accidents											
A. Urban											
B. Rural											
1.			55,326 47,566	58,702 51,792					65,935 57,667	67,189 58,999	
(2) Fatalities											
A. Urban											
B. Rural											
2.			249 696	246 712					220 795	240 744	
2. % of Fatal Accidents Where Pedestrian Violated Law											
3.			43.2	33.1					35.6	40.1	
3. Speed Violations — All Crashes											
A. Urban											
B. Rural											
4.			5,257 10,661	5,190 11,145					5,514 12,421	5,494 12,385	
Fatal Crashes											
A. Urban											
B. Rural											
5.			99 348	106 365					102 410	115 374	
6.											

HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia		2. TITLE		Police Traffic Services-State		3. NO PT-73-472 46-73-15-01		4. DATE 4-1-72	
5. DRAFTED BY Major J. S. Pearson APPROVED BY J. T. Hanna		1971 FY-2		1972 FY-1		FISCAL YEAR 1973		TOTAL		1974 FY-1 1975 FY-2	
6a. EFFECTIVENESS		Miles of highway per trooper		61.1	60.6	60.7	60.7	60.8	60.8	61.1	52.1
6b. OUTPUT		C Number of troopers		826	846	846	846	846	846	846	996
V Miles of highway under State Police jurisdiction				50,500	51,300	51,300	51,400	51,500	51,500	51,700	51,900
7. RESP. State Police		8. STD. 315		9. TASKS & MILESTONES							
				1	1	1	1	1	1	1	1
				6	6	6	6	6	6	6	6
				12	12	12	12	12	12	12	12
				3	6	6	6	6	6	6	43
				43	43	43	43	43	43	43	93
				826	846	846	846	846	846	846	996
				2	2	2	2	2	2	2	2
				2	2	2	2	2	2	2	2
				4	4	4	4	4	4	4	4
10. DESCRIPTION The State Police in Virginia render many ser- vices in the reduction of motor vehicle crashes involving fatalities, personnel injuries and property damage. Services include: (1) the well-rounded enforcement of traffic laws, (2) the investigation of motor vehicle crashes, (3) the surveillance of highways and traffic for adverse conditions, (4) the directing and controlling of traffic, and (5) the providing of emergency assistance to the motoring public. The immediate goal is to increase the strength of the Department to more adequately carry out these services. Troopers are assigned to counties				11. COST BY TASK \$(000)							
				12,435.9	12,665.5	3,711.4	2,881.9	2,881.9	2,881.9	12,357.1	16,836.8
				415.0	140.0	71.0	23.0	23.0	23.0	140.0	105.0
						16.6				16.6	
				12,850.9	12,805.5	3,799.0	2,904.9	2,904.9	2,904.9	12,513.7	16,941.8
				12,435.9	12,665.5	3,711.4	2,881.9	2,881.9	2,881.9	12,357.1	16,941.8
				415.0	140.0	87.6	23.0	23.0	23.0	156.6	

Police Traffic Services — State  $\frac{PT-73-472}{46-73-15-02}$

DESCRIPTION: (Cont.)

throughout the State according to the basic assignment factors of: (1) traffic volumes, (2) miles of highway, and (3) motor vehicle crashes. Increases in these factors dictate a need for additional manpower.

It is felt that the use of two recently acquired helicopters to supplement existing methods and facilities will materially aid in fulfilling the Department's primary mission of reducing death, injury, and property damage on the highways of Virginia.

According to arrest statistics, 96.5% of the Department's activity is directly related to the highways.

1. State of Virginia		2. TITLE		Police (Traffic Services)										3. No. 46-73-15-03	4. DATE 4-1-72
		TOTAL		1	2	3	4	5	6	7	8	9	10		
		TASKS													
13.	D Standard: 315	12,513.7	12,357.1	140	16.6										
	I Total \$(000)	156.6	0	140	16.6										
	S Federal	0	0	0	0										
	T To Localities	0	0	0	0										
	R Prev. Obligations	0	0	0	0										
	New Obligations	156.6	0	140	16.6										
	I Standard:														
	B Total														
	U Federal														
	T To Localities														
	I Prev. Obligations														
	O New Obligations														
	N Standard:														
	B Total														
	Federal														
	T To Localities														
	Y Prev. Obligations														
	New Obligations														
	S Standard:														
	T Total														
	A Federal														
	N To Localities														
	D Prev. Obligations														
	New Obligations														
	A Total														
	R Federal														
	D To Localities														
	Prev. Obligations														
14.	Local Costs by Object														
	Salaries														
	Per Diem and Travel														
	Contracts														
	Equipment														
	Supplies														
	Maintenance and Operations														
	Total														

## POLICE TRAFFIC SERVICES

Police agencies in the state of Virginia are readily divided into two groupings: local law enforcement agencies of the counties, cities, and towns, and state law enforcement agencies, the largest of which is the State Police Department. Below is a description of the structure of the local law enforcement agencies, an examination of the personnel and budgetary resources of the local law enforcement agencies, a discussion of present training and equipment resources, and a description of the present communication system between the state, county, and local law enforcement agencies.

### Local Law Enforcement Agencies

The enforcement of the law in Virginia is primarily the responsibility of law enforcement officials in the counties, cities, and towns.

For those unfamiliar with the Virginia system of local government, it must be kept in mind that the Virginia city is completely separate from and independent of adjacent counties. However, this separation is not true of the towns, which remain an integral part of the county. Among other things, this means that the county sheriff has no jurisdiction within a city, the major exception being "cities of the second class" (populations of less than 10,000) which share the sheriff with the adjacent county.

### Counties

Each of the 96 counties in the state has a sheriff who is a constitutional officer and, according to the size and population, various numbers of deputy sheriffs working directly under him. The sheriff is elected by the voters of the jurisdiction and he and his deputies and some employees are charged with the responsibility of enforcing all of the criminal laws within the jurisdiction as well as certain other duties such as



serving civil papers and the operation of the jail. The state of Virginia contributes two-thirds of the funds necessary for the operation of the sheriff's office, and the State Police patrol the highways in those counties where there are no organized county police forces.

The sheriffs in the Counties of Prince George, Prince William, Roanoke and York have a special police department whose members enforce the criminal laws. Because of the size and density of population, the counties of Arlington, Chesterfield, Fairfax, and Henrico maintain a police department separate from the sheriff's office.

#### Cities

There are 29 cities of the first class within the Commonwealth which have a constitutional officer called the city sergeant whose duties include that of acting as a jailor and process server, but rarely include actual law enforcement. The nine cities of the second class share the sheriff with the surrounding county. The city sergeant has various numbers of deputy city sergeants and some employees under his command whose authority is the same as that of a deputy sheriff.

There are 38 cities within the state of Virginia which have organized police departments. Their authority for enforcing the criminal laws is Section 15.1-138 of the Code of Virginia and the provisions contained in the special act charters granted to each city by the state legislature.

Each of these police departments is headed by a chief of police who reports to a director of public safety, or a city manager. The police officers in these cities are confined to the enforcement of state law and local ordinances within the boundary of the jurisdiction.

Towns

Of the 195 towns within the Commonwealth there are 154 which maintain either a small organized police department headed by a chief of police or a police officer designated as a town sergeant. The authority for providing law enforcement in these jurisdictions is the same as that for cities. The chiefs of police or town sergeants, whichever applies, report directly to the mayor or town manager. The remaining 41 Virginia towns depend on the county sheriff or county police force for law enforcement.

Resource Inputs to Local Police Agencies

During 1968, cities, towns, and counties in Virginia expended approximately \$44 million on police agencies. These expenditures ranged from a low of \$1,035 for the New Castle Town Police to a high of approximately \$4 million for the Richmond Police Department. During this period there were three counties with a police budget of over \$1 million and a force of over 100 men, and six counties with budgets less than \$10,000 and with three or less men. Eight cities in Virginia had police budgets of more than \$1 million, and 11 cities had a police force of greater than 100 men. During the same period, there were 55 towns with police budgets less than \$10,000 and seventy towns with police forces of exactly one man.

The wide variation in sizes and budgets of local police agencies, and concomitant discrepancies in the quality of training and equipment, make the problem of interaction and cooperation very difficult.

The responsibility for the investigation and disposition of crimes which are not within the capability of any one local law enforcement agency is in general vested in the Department of State Police.

The Police Traffic Services Program in Virginia seeks to reduce the number of accidents, including fatalities, personal injury and property damage, caused by individuals violating traffic laws, with particular attention directed toward the repeat violator. Problem areas include lack of sufficient enforcement at high accident locations as well as lack of training in handling all aspects of enforcement. The police departments are improving officer training and are establishing better communications systems in order to cope with accidents and traffic violators.

To accomplish this goal, the cities and towns throughout Virginia plan to develop and implement the following programs: (1) establishment of a 200-hour minimum training program for all new recruits; (2) refresher and in-service training courses for officers performing traffic duties; (3) setting up additional training for supervisory personnel in the fundamentals of organization and administration training techniques and in the use of records; (4) development of traffic sections within the police departments; (5) establishment of traffic records system; and (6) setting up additional training in all phases of traffic investigation.

The police departments also plan to hire additional personnel, purchase new equipment and establish better communications systems. The Highway Safety Division will provide funding for additional police equipment, communications and training.

The law enforcement officer's training standards commission is presently developing a visual file that will contain information pertaining to all police officers in the state and the amount and type of training they have had. This system will be available for use in the evaluation of the police traffic services program. A data system is also being developed by the Traffic Records Committee that will enable the Highway Safety Division to evaluate the police traffic services more effectively.

State Police

The Department of State Police is a law enforcement agency charged with the powers and duties to enforce all of the criminal laws of the Commonwealth of Virginia (Section 52.8, Code of Virginia) as follows:

The powers and duties of the Department of State Police are to enforce criminal laws and investigate aircraft accidents. The superintendent of State Police, his several assistants, and police officers appointed by him are vested with the powers of a sheriff for the purposes of enforcing all the criminal laws of this state and for investigating any aircraft accident which occurs in the state, and it shall be the duty of the superintendent, his several assistants and police officers appointed by him to use their best efforts to enforce the same.

Nothing in this section shall be construed as relieving any sergeant or sheriff, commissioner of the revenue, police officer or any official now or hereafter invested with police powers and duties, state or local, from the duty of aiding and assisting in the enforcement of such laws within the scope of his authority and duty.

The Department was established with the functions of patrolling highways, operating police schools, operating the State Police radio and communications system, supervising inspection stations and inspectors of motor vehicles, promoting highway safety, adopting standards for motor vehicle appliances and safety devices, and registering machine guns. Other statutory functions are a State Police teletype system and a joint state and local radio and teletype system operated for the benefit of the state and local police agencies throughout the state.

In accordance with the description stated above in Section 52.8 of the Code, the Department of State Police is also authorized to enforce all criminal laws of the state and to stand ready to assist any and all local law enforcement agencies in carrying out their responsibilities with manpower and other resources such as armored cars, polygraphs, scuba divers, airplanes, training facilities, and many investigative aids.

Officers of the State Police have concurrent jurisdiction in all of the localities of the state. The State Police, however, do not routinely patrol the streets of cities and towns in the Commonwealth where there are duly organized police departments, but instead, are confined to rural areas. In case of riots or other disturbances, the State Police, when requested by local authorities, are sent to troubled areas and assume concurrent jurisdiction with the local officers.

As in all other branches of law enforcement, expenditures of this Department are increasing due to increased numbers of rural highways, increased motor vehicle registrations, increased numbers of motor vehicle crashes, extension of mileage of interstate highway systems, and increased crime both statewide and in rural Virginia. According to projections of this Department, the Department of Highways, and the Division of Motor Vehicles, rural miles traveled, motor vehicle registrations, and motor vehicle crashes will increase 5% annually. These increases will demand more and more efficient services from this Department. Such services, of course, will demand a greater expenditure of funds. The fact that the Department of State Police is basically a service organization is best seen in the maintenance and operation budget request for 1970-71, which shows that salaries are 63.89% of the total.

An added obligation of the State Police has been brought about by the continuing increase in serious crimes, and habeas corpus proceedings brought about by recent United States Supreme Court decisions. Investigations of habeas corpus proceedings, although a function of the Attorney General's office, must be handled by the Department of State Police since the Attorney General has no investigative force and must rely on the State Police for assistance upon request of city, town, and county police departments in investigations, as well as handling the investigation of matters brought directly to their attention.

The State Police also render many services in a continuing effort to reduce motor vehicle crashes involving fatalities, personal injuries and property damage. These services include: (1) complete enforcement of traffic laws, (2) investigation of motor vehicle crashes, (3) surveillance of highways and traffic for adverse conditions, (4) directing and controlling traffic, and (5) providing emergency assistance to the motoring public.

An immediate concern of the Department is the need for additional manpower, due to an increase in traffic volume, highway mileage and the number of motor vehicle accidents. More troopers are required to enable the State Police to continue to provide traffic services which will result in a reduction of motor vehicle crashes. According to arrest statistics, 96.57% of State Police activity is directly related to the highways. An increase in manpower is necessary for State Police to continue its vital function of highway patrol.

To supplement traditional methods in fulfilling the Department's primary mission of reducing death, injury and property damage on Virginia highways, State Police have recently acquired two helicopters. These helicopters will enable State Police to further reduce reaction time in responding to accident calls and will also provide a method of response for calls from inaccessible areas. The helicopters will supplement existing methods of monitoring traffic flow and will aid in determining traffic volume.







HIGHWAY SAFETY PROGRAM ANNUAL SUBELEMENT PLAN		1. State of Virginia	2. TITLE		3. NO.		4. DATE	
			DC-73-281		46-73-16-03		4-1-72	
		5. DRAFTED BY APPROVED BY	FISCAL YEAR 1973		FISCAL YEAR 1973		FISCAL YEAR 1973	
		W. L. Howard J. T. Hanna	1st Q	2nd Q	3rd Q	4th Q	TOTAL	1974 FY+1
			1971 FY-2	1972 FY-1				1975 FY+2
6a. EFFECTIVENESS								
6b. OUTPUT								
7. RESP.	8. STD.	9. TASKS & MILESTONES						
Local Political Subdivisions	316	4. Communications A. Radio base stations (\$1,000 each) B. Radio consoles (\$800) C. Highway emergency alarms and vehicle status equipment, so that direct communications may be had from one console, \$25,000 per unit) D. Two-way radios (\$400 each)	NA NA	NA NA	10 5	0 0	10 5	10 10 10
10. DESCRIPTION	handling and disposition of hazardous materials as well as encouraging a uniform procedure for accident cleanup. Work continues on the development of a state traffic records system that after completed will enable us to evaluate our accident cleanup programs more effectively.	11. COST BY TASK \$(000) 4. Communications A. Base stations B. Consoles C. Alarms D. Two-way radios	0 0 0	0 0 0	10 4 250 20	0 0 0 0	10 4 250 20	10 8 250 40
		12. TOTAL COST \$(000) LOCAL SHARE STATE SHARE FEDERAL SHARE TO LOCALITIES						

HIGHWAY SAFETY PROGRAM SUBELEMENT SUPPLEMENT		1. State of Virginia	2. TITLE Accident Cleanup										3. No. 46-73-16-04	DC-73-281	4. DATE 4/1/72
		TOTAL	1	2	3	4	5	6	7	8	9	10			
13. D Standard: 316															
I	Total (\$000)	600	0	30	286	284									
S	Federal	55	0	30	25	0									
T	To Localities	55	0	30	25	0									
R	Prev. Obligations														
	New Obligations	55	0	30	25	0									
I Standard:															
B	Total														
U	Federal														
T	To Localities														
I	Prev. Obligations														
O	New Obligations														
N Standard:															
	Total														
B	Federal														
Y	To Localities														
	Prev. Obligations														
	New Obligations														
S Standard:															
T	Total														
A	Federal														
N	To Localities														
D	Prev. Obligations														
	New Obligations														
A	Total														
R	Federal														
D	To Localities														
	Prev. Obligations														
14. Local Costs by Object															
	Salaries														
	Per Diem and Travel														
	Contracts														
	Equipment														
	Supplies														
	Maintenance and Operations														
	Total														

EFFECTIVENESS SUPPLEMENT  
TO THE SUBELEMENT

Title and No.	DC-73-281 46-73-16-05	Date 4-1-72	1970 FY-2	1971 FY-1	Fiscal Year 72					1973 FY+1	1974 FY+2
					1st Qt.	2nd Qt.	3rd Qt.	4th Qt.	Total		
6a. EFFECTIVENESS											
Crashes Involving Previous Crash Debris or Blockage			75	80					85	90	100
1.											
2.											
3.											
4.											
5.											
6.											

## ACCIDENT CLEANUP

Each local political subdivision, in cooperation with the state, is developing a program which provides for the rapid, orderly and safe removal from the roadway of wreckage, spillage and debris resulting from motor vehicle accidents. Rapid cleanup should reduce the likelihood of secondary and chain-reaction collisions, and conditions hazardous to the public health and safety. A study has been completed of the accident cleanup program in Virginia to help eliminate automobile crashes by providing for a rapid and safe removal of accident debris from the highways. The study, conducted by Wilbur Smith and Associates, Consulting Engineers of Richmond, involved highway safety incidents and a determination and evaluation of the existing methods utilized to control debris caused by accidents. The study resulted in a manual of recommended procedures and operational guidelines to restore an accident scene to its original condition. It identifies the important state government resources and personal contacts which may be used for assistance.

The procedure manual is indexed and categorized and is designed for use by local and state officials including police, medical services personnel, civil defense units, traffic engineers, rescue squads and other appropriate groups. All known resources and capabilities for restoring the accident sites to safe conditions are listed with administrative officials who need to be notified for site restoration.

An important result of the study is the familiarization of each governmental agency and contributory group with its responsibility in the area of debris hazard control and cleanup. Various organizations, such as police, medical engineers, and others, including citizens, are apprised of their areas of functional responsibility. Hopefully, this manual and follow-up meetings between agencies will increase the level of coordination and will assure a more thorough understanding by public officials of the importance of debris control and cleanup.

The debris control and cleanup project initiated last year has identified all available resources and capabilities (private, local and state) which can be utilized. The deficiencies in the program have been pointed out. The new operational procedure manual provides for:

- (a) Enabling rescue and salvage equipment personnel to get to the scene of accidents rapidly and to operate effectively upon arrival;
- (b) extricating trapped persons from wreckage with reasonable care;
- (c) warning approaching drivers and detouring them with reasonable care past hazardous wreckage or spillage;
- (d) safe handling of spillage or potential spillage;
- (e) removing wreckage or spillage from roadways so as to facilitate the resumption of safe, orderly traffic flow.

In short, efforts have been made to ensure a uniform and effective statewide program of debris hazard control and cleanup.

At present, wrecker services in most cities and counties throughout the state are required to cleanup all accident sites. The Virginia Department of Highways also has available special crews for debris cleanup in emergency situations as well as continuous cleanup of dead animals and trash from the highways.

Four regional training courses are proposed which would train appropriate local officials in the handling and disposition of hazardous materials as well as encouraging a uniform procedure for accident cleanup.

Work continues on the development of a state traffic records system which should enable the Highway Safety Division to evaluate the accident cleanup programs more effectively.



## PART V

AGREEMENT PROVISIONS

RESPONSIBILITY FOR WORK. The State, through its Governor, will implement the attached Annual Work Program for fiscal year and will perform, or by formal agreement with appropriate officials of a political subdivision or State agency, cause to be performed under its supervision the work covered by such Program in accordance with the detailed plans and specifications annexed thereto and made a part hereof by reference.

BASE YEAR CRITERIA. The State will maintain the aggregate expenditure of funds of the State and political subdivisions thereof, exclusive of Federal funds, for highway safety programs at a level which does not fall below the average level of such expenditures for its last two full fiscal years preceding the date of enactment of the Highway Safety Act of 1966 (September 9, 1966).

MAINTENANCE.

1. National Highway Traffic Safety Administration. Facilities and equipment acquired under this agreement for use in highway safety standard areas administered by the National Highway Traffic Safety Administration shall be used and kept in operation for highway safety purposes by the State, or the State, by formal agreement with appropriate officials of a political subdivision or State agency, shall cause such facilities and equipment to be used and kept in operation for highway safety purposes. Costs incurred under the terms of this agreement for necessary maintenance, repair, or upkeep of the facilities and equipment which neither add to the permanent value of the facility or equipment nor appreciably prolong its intended life, shall be eligible for reimbursement of the Federal share payable. Where facilities or equipment acquired in connection with a task subject to this agreement are not used and kept in operation for highway safety purposes, the Secretary shall withhold further reimbursement under 23 USC 116(c). When a task is subject to an agreement between the State and a political subdivision, or a State agency, the sanction shall apply only to such political subdivision or State agency.

2. Federal Highway Administration. The State will use and maintain, or by formal agreement between the State and appropriate officials of a political subdivision or State agency, cause to be used and maintained, for highway safety purposes, any facilities and equipment acquired in connection with this agreement for use in highway safety standards administered by the Federal Highway Administration. Costs incurred for necessary maintenance, repair, or upkeep of such facilities and equipment are not eligible for reimbursement of the Federal share payable. It is understood that the sanctions prescribed in 23 USC 116(c) shall apply separately to each task of the agreement. Where facilities and equipment are acquired in connection with a task subject to an agreement between the State and a political subdivision or State agency, as referred to above, the Secretary's withholding of further reimbursement under 23 USC 116(c) shall apply only to such political subdivision or State agency.

NONDISCRIMINATION PROVISION. The State agrees that, as a condition to receiving any Federal financial assistance under this agreement, it will comply with all applicable laws, regulations, executive orders, policies, and procedures relative to the assurance of equal opportunity without regard to race, religion, color, sex or national origin.

The State hereby agrees that it will incorporate or cause to be incorporated into any contract for construction work, or modification thereof, as defined in the rules and regulations of the Secretary of Labor at 41 CFR Chapter 60, which is paid for in whole or in part with funds obtained from the Federal Government or borrowed on the credit of the Federal Government pursuant to a grant, contract, loan, insurance or guarantee, or undertaken pursuant to any Federal program involving such grant, contract, loan, insurance or guarantee, the following equal opportunity clause:

"During the performance of this contract, the contractor agrees as follows:

1. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising; layoffs or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the State setting forth the provisions of this nondiscrimination clause.
2. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.
3. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided by the State advising the said labor union or workers' representative of the contractor's commitments under this equal employment opportunity clause and shall post copies of the notice on conspicuous places available to employees and applicants for employment.
4. The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations and relevant orders of the Secretary of Labor.
5. The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records and accounts by the State, the National Highway Traffic Safety Administration, the Federal Highway Administration, and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations or orders.
6. In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations or orders, this contract may be canceled, terminated or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or Federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246



of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation or order of the Secretary of Labor, or as otherwise provided by law.

7. The contractor will include the provisions of this equal employment opportunity clause in every subcontract or purchase order unless exempted by rules, regulations or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the State or the National Highway Traffic Safety Administration and the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance: Provided however, that in the event a subcontractor becomes involved in, or is threatened with litigation with a subcontractor or vendor as a result of such direction by the Administrations, the contractor may request the United States to enter into such litigation to protect the interests of the United States, and, in addition, the contractor may request the State to enter into such litigation to protect the interest of the State".

The State further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work; However, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of the State which does not participate in work on or under the contract.

The State also agrees:

(1) To assist and cooperate actively with the Administrations and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor.

(2) To furnish the Administrations and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the Administration in the discharge of the Administration's primary responsibility for securing compliance.

(3) To refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order.

(4) To carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the Administrations or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order.

In addition, the State agrees that if it fails or refuses to comply with these undertakings, the Administrations may take any or all of the following actions:

- (a) Cancel, terminate, or suspend this agreement in whole or in part;
- (b) Refrain from extending any further assistance to the State under the program with respect to which the failure and refusal occurred until satisfactory assurance of future compliance has been received from the State;
- (c) Refer the case to the Department of Justice for appropriate legal proceedings.

#### ADDITIONAL PROVISIONS

U.S. DEPARTMENT OF TRANSPORTATION  
National Highway Traffic Safety Administration  
Federal Highway Administration

FEDERAL-AID ANNUAL WORK PROGRAM AGREEMENT  
(Volume 103)

The State, through its Governor, having complied, or hereby agreeing to comply, with the terms and conditions set forth in Chapter 4 of Title 23, United States Code, the provisions of Office of Management and Budget (OMB) Circular No. A-87, issued May 9, 1968, and the regulations, rules, policies and procedures issued pursuant thereto as well as all other applicable Federal laws and requirements, and the National Highway Traffic Safety Administration and the Federal Highway Administration having authorized certain work to proceed as evidenced by the date entered opposite the specific part of the program, Federal funds are obligated not to exceed the amounts applicable to the National Highway Traffic Safety Administration part of the program and the Federal Highway Administration part of the program shown herein, the balance of the estimated total cost being an obligation of the State. Such obligation of Federal funds extends only to those costs incurred by the State after authorization has been given to proceed with the particular part of the program involving such costs. The Federal funds obligated shall be subject to availability of Federal obligational authority and any other limitations as may be prescribed by statute, administrative action, or conditions of approval.

Program	Effective date of authorization	Estimated total cost of program	Federal Funds	
			FY	FY
National Highway Traffic Safety Administration	August 5, 1971*	\$ 72,000,000		1,378,415
Federal Highway Administration	August 5, 1971*	423,000,000		122,500
Total		\$495,000,000		1,500,915

\* P&A and continuing projects authorized as of July 1, 1971

The State further stipulates that pursuant to said Title 23, regulations, and policies and procedures, and as a condition to payment of the Federal funds obligated, it accepts and will comply with the provisions set forth on the reverse side hereof.

State of VIRGINIA

By

*John T. Hanna*  
(Name of Official Authorized by the Governor)

Director, Virginia Highway Safety Division  
(Title)

DATE September 10, 1971

National Highway Traffic Safety Administration

By

*Charles L. Albright*  
Acting Regional Administrator, Region III  
(Title)

Date 10-1-71

Federal Highway Administration

By

*Reginald V. Vester*  
Regional Highway Administrator  
(Title)

Date 10-1-71

1506

U.S. DEPARTMENT OF TRANSPORTATION  
National Highway Traffic Safety Administration  
Federal Highway Administration  
MODIFICATION OF  
FEDERAL-AID ANNUAL WORK PROGRAM AGREEMENT  
(Volume 103)

The Annual Work Program Agreement entered into between the undersigned parties and executed on October 1, 1971, is hereby modified as follows:

Program	Effective date of authorization	Estimated total cost of program	Federal Funds	
			FY 1972	FY 1971
National Highway Traffic Safety Administration				
Former Amount	8-5-71	\$72,000,000	\$1,378,415	
Revised Amount	10-14-71	72,000,000	1,476,244	\$10,835
Federal Highway Administration				
Former Amount	8-5-71	423,000,000	122,500	
Revised Amount	10-14-71	423,000,000	131,300	
Total				
Former Amount	8-5-71	495,000,000	1,500,915	
Revised Amount	10-14-71	495,000,000	1,607,544	10,835

This modification is made for the following reasons: Additional funds available for obligation.

All other terms and conditions of the Annual Work Program Agreement will remain in full force and effect.

This modification is effective as of the 14th day of October 1971.

State of Virginia

By Signature JTK 2/14/72  
(Name of Official Authorized by the Governor)

(Title)

Date \_\_\_\_\_

National Highway Traffic Safety Administration

By \_\_\_\_\_

Regional Administrator, Region III  
(Title)

Date \_\_\_\_\_

Federal Highway Administration

By \_\_\_\_\_

Federal Highway Administrator, Region 3  
(Title)

Date \_\_\_\_\_

# ANALYSIS OF COSTS

## ANNUAL WORK PROGRAM - FISCAL YEAR 1972

### STATE OF Virginia (42)

#### Part A - NHTSA

SEP Number	Total Costs	State Share	Federal Share	Federal Share to Localities
PA72-001	477,825	290,450	187,375	
VR72-101	368,000	368,000	-0-	
VR72-201	8,018,000	8,018,000	-0-	
MS72-301	20,000	10,000	10,000	10,000
DE72-401	12,312,100	12,042,365	269,735*	238,500
DE72-417	156,200	91,600	64,600	
DL72-501	4,054,500	3,877,000	177,500	
CL72-601	23,000	10,000	13,000	13,000
TC72-701	1,747,883	1,716,600	31,283	31,283
AL72-801	43,000	2,000	41,000	41,000
TR72-001	50,000	-0-	50,000	
TR72-007	930,000	930,000	-0-	
EM72-101	1,298,995	1,071,442	227,553	164,383
PS72-401	54,400	27,200	27,200*	27,200
PT72-501	23,924,000	23,660,160	263,840	263,840
PT72-507	12,789,493	12,665,500	123,993	
DC72-601	-0-	-0-	-0-	
Totals (per AWP Agreement)	\$66,267,396	\$64,780,317	\$1,487,079	\$789,206 (53%)

\* Funds transferred in the amounts of \$6,835 and \$4,000, respectively, from last year's projects.

# ANALYSIS OF COSTS

ANNUAL WORK PROGRAM — FISCAL YEAR 1972

STATE OF Virginia (42)

Part B — FHWA

SEP Number	Total Costs	State Share	Federal Share	Federal Share to Localities
IS72-609	43,436	21,718	21,718	21,718
HD72-201	42,976,650	42,951,825	24,825	24,825
CD72-301	7,476,136	7,449,488	26,648	4,200
PS72-401	116,218	58,109	58,109	58,109
Totals (per AWP Agreement)	\$50,612,440	\$50,481,140	\$131,300	\$108,852 (82.9%)