HOW TO MAKE SELECTIVE ENFORCEMENT WORK: Lessons from Completed Evaluations

by

JACK D. JERNIGAN
Assistant Research Scientist

VIRGINIA HIGHWAY & TRANSPORTATION RESEARCH COUNCIL

Form R-396 (7-85)

121812

Standard Title Page -- Report on State Project

Report No.	Report Date	No. Pages	Type Report: Final	Project No. : N/A
VHTRC 87-R15	December 1986	17	Period Covered: N/A	Contract No.: N/A

Title and Subtitle

How to Make Selective Enforcement Work: Lessons From Completed Evaluations

Key Words

Traffic Enforcement
STEP
Selective Enforcement

Author(s)

Jack D. Jernigan

Performing Organization Name and Address

Virginia Highway and Transportation Research Council
Box 3817, University Station
Charlottesville, Virginia 22903-0817

Sponsoring Agencies' Names and Addresses

Va. Dept. of Highways & Transp.
1221 E. Broad Street
Richmond, Virginia 23219

University of Virginia
Charlottesville
Virginia 22903

Supplementary Notes

Abstract

Selective enforcement, the practice of targeting specific traffic offenses which figure prominently in the crash problems experienced by a community, is an integral part of practically every traffic safety program. These enforcement projects are highly visible, and, if run properly, can be effective in reducing the number and severity of crashes.

Past experiences have provided valuable examples of ways to, and ways not to, plan, fund, and implement selective enforcement projects. The purpose of this report is to summarize the findings of several evaluations of selective enforcement projects and to propose a series of steps which, if followed, may help implement successful selective enforcement projects in the future.

HOW TO MAKE SELECTIVE ENFORCEMENT WORK:

Lessons from Completed Evaluations

by

Jack D. Jernigan
Assistant Research Scientist

(The opinions, findings, and conclusions expressed in this report are those of the author and not necessarily those of the sponsoring agencies.)

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

Charlottesville, Virginia

December 1986
VHTRC 87-R15

SAFETY RESEARCH ADVISORY COMMITTEE

W. E. DOUGLAS, Chairman, Director, Planning & Programs Development, Department of Motor Vehicles

V. M. BURGESS, Transportation Safety Administrator, Department of Motor Vehicles

J. T. HANNA, Deputy Commissioner, Department of Motor Vehicles

C. P. HEITZLER, JR., Program Manager, Department of Information Technology

T. A. JENNINGS, Safety/Technology Transfer Coordinator, FHWA

B. G. JOHNSON, Supervisor, Driver Education, Department of Education

F. W. JOHNSTONE, Chief of Police, Albemarle County Police Department

C. W. LYNN, Reseach Scientist, VTRC

R. M. MCDONALD, Project Director, Transportation Safety Training Center, Virginia Commonwealth University

J. T. PHIPPS, Director, Roanoke Valley Alcohol Safety Action Project

C. M. ROBINSON, Field Supervisor, Department of State Police

ANDREW SISSON, Director, Substance & Abuse Services, Blacksburg, Virginia

F. F. SMALL, Highway Engineering Program Supervisor, VDOT

J. A. SPENCER, Assistant Attorney General, Office of the Attorney General

C. W. THACKER, Director, Office of Substance Abuse Services, Department of Mental Health and Mental Retardation

E. W. TIMMONS, Director of Public Affairs, Tidewater AAA of Virginia, Norfolk, Virginia

TABLE OF CONTENTS

FIVE KEYS TO SUCCESSFUL SELECTIVE ENFORCEMENT

1. State and local enforcement officials should work in cooperation with the Transportation Safety Administration to identify the times, days, sites, and offenses which present the most pronounced crash problems, and to establish an enforcement plan to target these problems. Periodic checks by project management may be required to guarantee that activities are proceeding as planned.

2. Realistic and measurable immediate, intermediate, and ultimate objectives should be established as a part of the enforcement plan. These objectives require periodic review and follow-up. Experience may dictate a redirection of objectives.

3. A locality should be required to document a pre-existing crash problem before a selective enforcement grant is awarded. The success of a program is almost completely dependent upon there being a crash problem of sufficient magnitude that enforcement can affect it.

4. Grants should be awarded for more than one year and they should be proportionate to the size of the locality and its problem. One year is usually too short a time span to allow for measurable project impact. Also, the commitment of resources to the job must be commensurate with the job to be done. If time and funds are inadequate to the task, effort is better spent elsewhere.

5. State and local enforcement officials should collect data on citation and enforcement activities, and local police should collect site-specific and time-specific crash data. These data are indispensable for a determination of the project's effectiveness.

How to Make Selective Enforcement Work: Lessons from Completed Evaluations

by

Jack D. Jernigan
Assistant Research Scientist

INTRODUCTION

Since the passage of the Highway Safety Act of 1966, a great deal of attention has been focused on improving highway safety. Unquestionably, the citizens of Virginia have benefited from improvements made over the years; for instance, the average number of persons killed annually in traffic crashes was down more than 18% from 1,183 between 1965 and 1969 to 970 between 1980 and 1984 (Virginia Department of State Police [VSP], 1985). Moreover, because there are more vehicles and drivers today logging more miles than during the 1960's, the average annual death rate per 100 million vehicle miles of travel has been cut more than 50% from 5.02 during the latter 1960's to 2.45 during the early 1980's (VSP, 1985).

Clearly, no single factor can be credited with bringing about this improvement. Rather, much is the result of a comprehensive effort to improve traffic safety. This effort has included improving the design of roads and motor vehicles, requiring the installation and increasing the use of safety belts, improving emergency medical services, coordinating and improving the quality of driver licensing- and accident-reporting data, focusing on alcohol-related and speed-related crash problems, and enhancing police traffic services.

The involvement of law enforcement officials in this comprehensive system is certainly one of the more visible aspects of efforts to improve traffic safety. In fact, many people feel that increased enforcement of existing traffic laws is needed to improve traffic safety. Those who are actively involved in promoting traffic safety also rely heavily on the services of state and local police. Thus, the rest of the traffic safety system must be willing to support enforcement officials in carrying out an effective enforcement program.

Planning for selective enforcement is one particular area in which past experiences can, and should, be used to guide enforcement activities. Previous selective enforcement evaluation studies have shown that selective enforcement projects are not always planned and implemented properly. Consequently, they are not always effective.

The term "selective enforcement" means that police officers select certain times and sites for which specific traffic laws are to be stringently enforced (Sharkey, 1986; Sharkey & Stoke, 1985; Stoke, Atkins, & Caudell, 1985); for example, radar units may be set up to enforce the speed limit at a given time and location, or checkpoints may be used to detect drivers under the influence of alcohol or other drugs. Ideally, when planning a project of this nature, crash data are reviewed to determine the offenses, times, and sites which are overrepresented among a locality's crash problems. In practice, this sort of detailed problem identification is seldom performed.

Recent events dictate that the inadequacies in selective enforcement projects be overcome. Between January and December of 1986, the number of fatalities in the Commonwealth of Virginia was up approximately 15% over the same period for the preceding year. Further, transportation safety monies are limited, and it is critical that they be targeted where they will have the greatest potential impact. Thus, if selective enforcement is to be effective, those traffic offenses shown to be directly connected with crashes must be targeted.

PURPOSE

The ultimate objective of this report is to uncover what makes a selective enforcement project effective. Also, this report seeks to discover common elements among projects which were not effective, or for which data were inadequate to determine their effectiveness.

A further intent is to review the literature on the topic of selective enforcement and to recommend a rational basis for the planning, funding, and implementation of future selective enforcement projects. Previous reports have outlined recommendations, but implementation of these recommendations is only slowly evolving. Thus, another reason for writing this report is to promote implementation of those recommendations.

ANALYSIS

One surprising problem with many of the selective enforcement projects which were evaluated was that money was spent where there was no documented problem. For instance, alcohol selective enforcement projects in six of thirteen localities funded for the fiscal year 1982 actually had no documented pre-existing alcohol-related crash problem (Lynn, 1985). Likewise, many speed selective enforcement programs were funded for localities which had no documented speed-related crash

problem (Sharkey, 1986; Sharkey & Stoke, 1985; Stoke, Atkins, & Caudell, 1985). Obviously, if localities which have only marginal alcohol-related or speed-related crash problems are being funded for selective enforcement projects for these offenses, monies are not being targeted where they can have the greatest potential impact.*

The second problem with selective enforcement projects which have been run in Virginia is that there has been a general failure to target problems within a locality (Lynn, 1985; Sharkey, 1986; Sharkey & Stoke, 1985; Stoke, Atkins, & Caudell, 1985). Problematic times and sites generally have not been identified within a particular locality. Without site-specific and time-specific data, even in localities where there is a documented problem, there is no way to determine whether the problem is being addressed. If the crash problem were only on the south side of town, how could patrols on the north side of town have an impact? If crashes were most pronounced on Friday night, how could selective enforcement patrols on Monday morning help reduce the problem?

Related to this problem is the failure of the State Police and a majority of local police forces to collect data adequate to identify problems or to evaluate the effectiveness of selective enforcement projects. In counties this is primarily a problem which the state needs to address, because roadways in most counties are state maintained. In incorporated areas the obligation for providing adequate data is shared by the city and the state; because if the state is to be responsible for deciding on which selective enforcement projects receive funding, then the state should be responsible for ensuring that these projects are properly focused.

A fourth problem is that the State Police and many localities failed to identify realistic and measurable immediate, intermediate, and ultimate objectives. These objectives should fit the type of project which is being run in a particular locality. That is, it may be unrealistic to expect that 600 hours of speed selective enforcement activity will reduce a community's total crash problem by 15%. However, it would be realistic to expect that citations would be issued more frequently in that locality and that, eventually, the speed-related crash problem might decrease on patrolled routes by a measurable amount. The ultimate objective of any selective enforcement project is to reduce the number and severity of crashes; but identifying realistic and measurable immediate and intermediate objectives is equally important.

---

* Because of recent changes at the Transportation Safety Administration of the Department of Motor Vehicles, a locality must now document a pre-existing crash problem prior to receiving a project grant.

In contrast with the common problems cited in these evaluation reports, one study found that projects which had been funded for more than one year tended to be more effective (Sharkey, 1986). Consequently, it may be unrealistic to expect a project to affect a crash problem during its first year.

Perhaps one reason for the aforementioned finding is that it takes some time for the presence of the project to be felt within a community. Though the evaluation of alcohol selective enforcement projects did not find multi-year funding to be correlated with effectiveness, the author concluded that a problem with some projects was the public's lack of awareness of increased enforcement efforts (Lynn, 1985). Publications on selective enforcement indicate that the optimal selective enforcement project would enhance the public perception that violations of the law have a high probability of being detected by the police (National Highway Traffic Safety Administration [NHTSA], 1972; Ross, 1981). This can only be achieved through publicity and a reputation developed over time (NHTSA, 1972).

A second element found among some of the more successful projects was that many received more funds per registered vehicle than other localities (Sharkey, 1986). Hence, it may be that the size of a grant relative to the size of locality and the size of the problem is more important than its absolute size. However, the evaluation of alcohol selective enforcement projects indicates that projects must be properly planned and implemented in addition to receiving adequate funding.

Finally, projects which were evaluated as being effective tended to target specific roads for project activities (Lynn, 1985; Sharkey, 1986; Sharkey & Stoke, 1985; Stoke, Atkins, & Caudell, 1985). Other writings document that site-specific projects are more effective than projects which do not target specific locations (Griffin & Hatfield, 1981; NHTSA, 1972). Yet targeting specific roadways is only one step toward eliminating the serious crash problems of a locality. It is also desirable that well-chosen times be targeted for selective enforcement projects. Figure 1, which displays the frequency of personal injury crashes for 1985 for each of the 168 hours of the week, shows that crashes are not evenly distributed throughout the week (Virginia Department of Motor Vehicles, 1986). Rather, there are certain days and times at which crashes seem to occur more frequently. Trends such as these should be reviewed when considering any potential selective enforcement project.

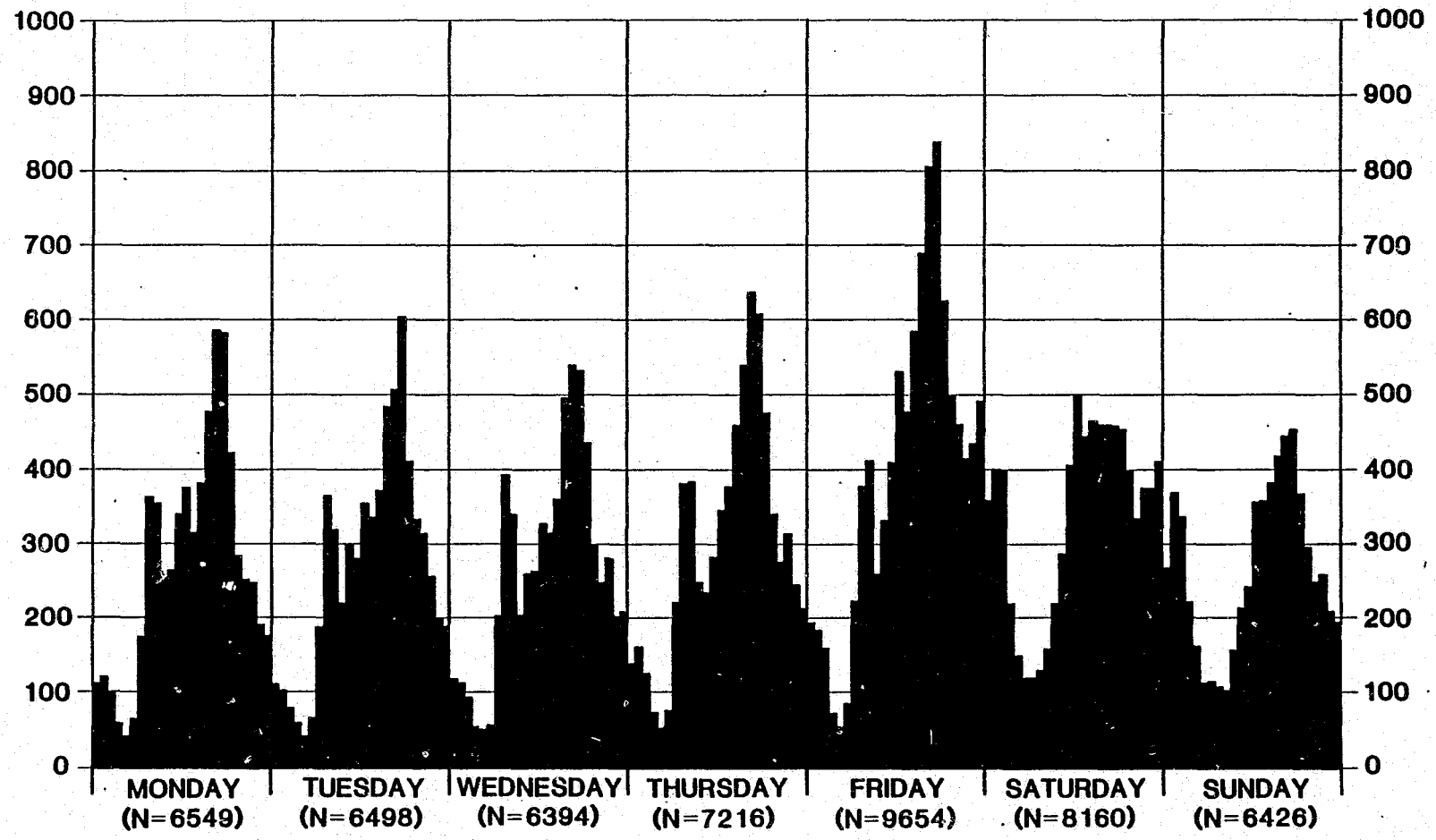

Figure 1: Hourly Distribution of All Virginia Personal Injury Crashes, 1985

CONCLUSIONS

The evaluation of previous selective enforcement projects makes it quite clear that the current system needs to be changed. This report has sought to find ways of changing the selective enforcement planning and implementation process so that those concerned with traffic safety will be better able to have an impact on reducing crash problems.

From reviewing previous evaluations, the author concludes that Figure 2 outlines the proper process of planning, funding, and implementing selective enforcement projects. Perhaps in years past there was enough money to make detailed planning unnecessary. However, since monies are now scarce, targeting them to combat the most pronounced problems has become of paramount importance. This can only be accomplished through proper planning. Data are available to determine which localities have the most pronounced crash problems; however, these data must be used. Reasonable objectives need to be set. A well-thought-out implementation plan needs to be developed through a cooperative effort of state and local officials. Finally, adequate site-specific and time-specific crash and activity data must be collected in order to determine whether a selective enforcement project has had an impact.

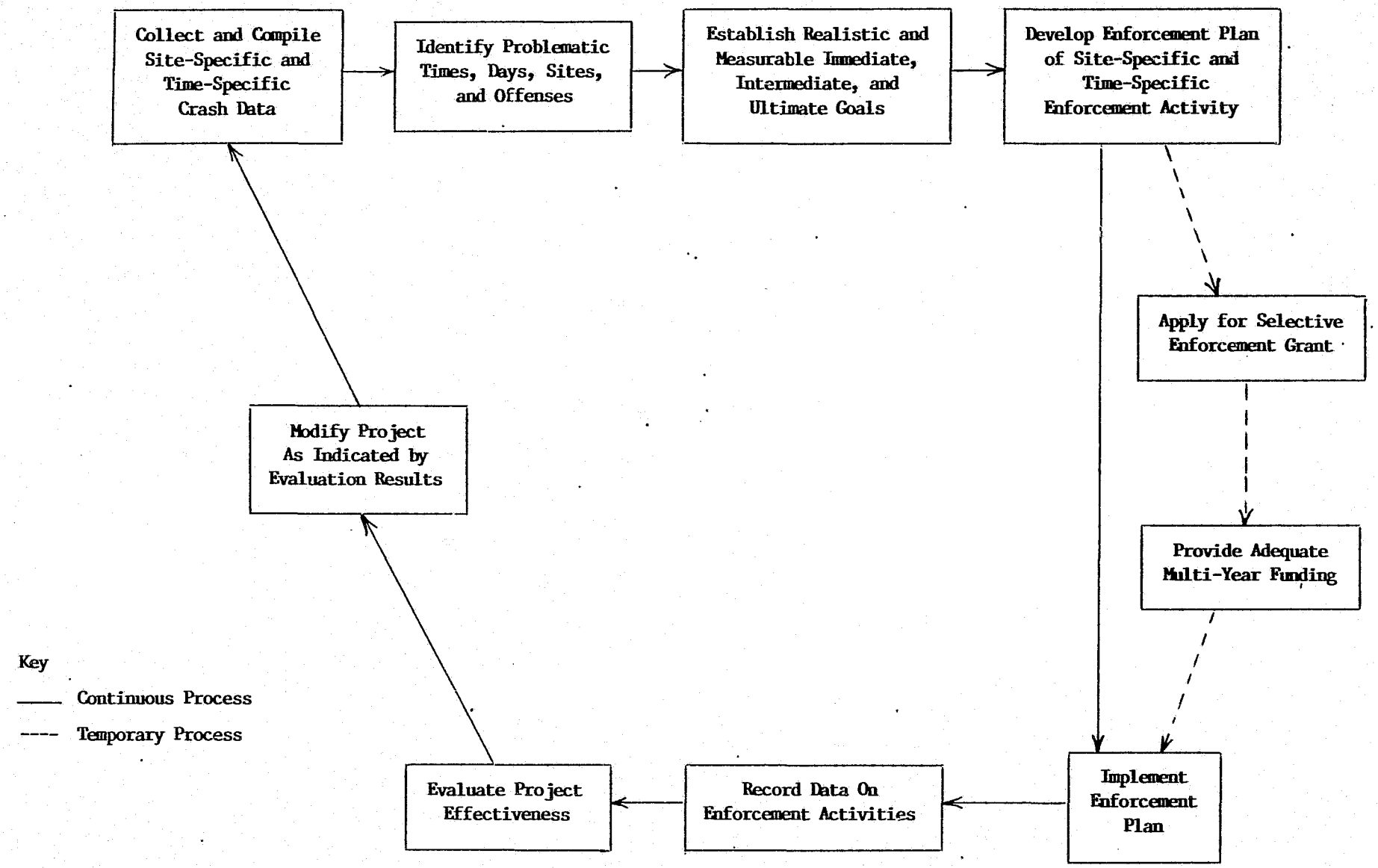

Figure 2: The Proper Process of Planning, Funding and Implementing Selective Enforcement Projects

REFERENCES

Griffin, L.I., III, & Hatfield, N.J. (1981). Evaluation of a Selective Traffic Enforcement Program (STEP) in Tyler, Texas (Report No. TARE-41). College Station, TX: Texas Transportation Institute.

Lynn, C.W. (1985). An Evaluation of Thirteen Local Selective Enforcement Projects Designed to Reduce Drunken Driving in Virginia (Report No. VHTRC 86-R14). Charlottesville, VA: Virginia Highway and Transportation Research Council.

National Highway Traffic Safety Administration. (1972). Selective Traffic Enforcement Manual (Report No. DOT/HS-800 701). Washington, DC.

Ross, H.L. (1981). Deterring the Drinking Driver. Lexington, MA: Lexington Books.

Sharkey, S.M. (1986). Evaluation of the 1984 Selective Speed Enforcement Projects in Virginia (Report No. VHTRC 87-R13). Charlottesville, VA: Virginia Highway and Transportation Research Council.

Sharkey, S.M., & Stoke, C.B. (1985). Evaluation of 1983 Selective Speed Enforcement Projects in Virginia (Report No. VHTRC 86-R19). Charlottesville, VA: Virginia Highway and Transportation Research Council.

Stoke, C.B., Atkins, A.L., & Caudell, A.K. (1985). Evaluation of 1982 Selective Speed Enforcement Projects in Virginia (Report No. VHTRC 85-R22). Charlottesville, VA: Virginia Highway and Transportation Research Council.

Virginia Department of Motor Vehicles. (1986). 1985 Virginia Traffic Crash Facts. Richmond, VA.

Virginia Department of State Police. (1985). Virginia Traffic Crash Facts: 1984. Richmond, VA.

ACKNOWLEDGEMENTS

The author expresses appreciation to all of the persons whose efforts contributed to the completion of this report. Particularly, the author acknowledges the efforts of Wayne Ferguson and Charlie Stoke, who provided much guidance for this report; Jeanne Roberts, who worked diligently to prepare this report; Roger Howe and the Report Section, who readied this report for publication; Chris Quan, who prepared the graphics; the State Police, Lewis Woodson, and Ed Deasy, who are responsible for the cover; and Margie Jernigan, whose support and confidence serve to encourage the author daily.