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APPLYING STRATEGIC PLANNING TO STATE HIGHWAY SAFETY PROGRAMS

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Summary of 1985 TRB Conference
at
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INTRODUCTION

Experience has shown that highway safety can be improved through better management. Carefully targeted spot highway improvements based on a systematic review of computerized accident records have a proven record in cost effectiveness and accident reduction. Recently, grassroots efforts in the areas of drunk driving, child safety seats, and safety belts have mobilized public opinion, produced legislative action, and saved lives.

The development of a comprehensive strategic plan for highway safety, through which we try to identify both the needs and the solutions, should result in programs which achieve significant reductions in the number and severity of traffic accidents.

During the past decade, we have witnessed impressive reductions in traffic related deaths. These gains have been realized through improved highway and vehicle design and through programs such as the 55 mph national maximum speed limit, the drunk driving countermeasures, and safety belt use laws. It is interesting to note that each of these programs had their impetus outside the professional highway safety community, and profound additional benefits above and beyond our first goals. We have learned that to improve safety on the nation's highways, the community must be integrated into the highway safety planning process. As federal, state, and local officials move toward the 1990s, a new approach to safety planning and management is needed.

The Transportation Research Board Committee on Planning and Administration of Transportation Safety conducted a workshop in August of 1985, with the objective to develop a process format for a comprehensive strategic plan for highway safety.

The workshop brought together traffic safety representatives to explore issues associated with the new and changing environment, and to identify the steps that need to be taken in the development of a realistic, results-oriented, strategic plan for highway traffic safety management.

STRATEGIC PLANNING

Mr. Kenneth E. Boulding has observed that "...the world moves into the future as a result of decisions, not as a result of plans. Plans are significant only in so far as they affect decisions. Planning may be defined in such a way that it is part of the total decision-making process; but if it is not part of the decision-making process, it is a bag of wind, a piece of paper, and worthless diagrams." (1)

(1)

Kenneth E. Boulding, Reflection on Planning the Values of Uncertainty, Technology Review, October/November, 1974 (P.8.)

THE PROCESS

To be effective, safety managers must be capable of modifying operations to exploit the changing environment. How do they do this?

The process of planning for "now" requires that the managers continually ask themselves what services should be offered, and to whom.

At one extreme, we have highway safety professionals arguing for the existing 18 federal motor vehicle safety standards. At the other extreme we have one-issue citizen activists with revolutionary results to their credit.

One must recognize that focus is critical to the successful implementation of any program. Strategic planning offers a systematic way for the highway safety manager to anticipate and manage change. In its most generic form, it is a decision-making process for identifying and accomplishing the most important actions and evaluating the program's strengths and weaknesses, threats, and opportunities. It also:

- Explicitly considers resources that are available.
- Considers major events and changes occurring outside of the organization and/or jurisdiction.
- Is action-oriented, with a strong emphasis on practical results.

Strategic planning is a technique for improving an agency's competitive position for scarce resources. It is not a panacea. It requires an investment of money and effort, and its benefits are not always obvious, but it is a positive alternative to crisis management. Strategic planning attempts to integrate the goals of the organization, emphasize its competence, and identify the opportunities and risks in the environment. It is appropriate that the highway safety environment make use of this approach in identifying directions for the state highway safety programs.

THE FORMAT

The following is a typical strategic planning format. The format process is a continuous loop; therefore, the process can be started at any step. In many instances it may be more advantageous to begin at a step other than the "Scan" step.

Scan the Environment and Select Key Issues. The purpose of the environmental scan is to identify a handful of issues that are critical to the future success of the highway safety program. The scan should have a macro-analytic scope and place emphasis on external forces impacting the program. This step is a scan, not an exhaustive examination. The same information will be more rigorously analyzed in a later step. The scan identifies the critical issues that will make a difference in the future direction of the highway safety program. Indeed, strategic planning focuses on a few critical problems so that the manager will find it easier to obtain a commitment by the organization and public for implementing the ultimate strategies.

Develop Mission Statements. The setting of a mission statement defines in a general way the objectives for the organization. Most important at this point is the involvement of all those in an organization that control the allocation of resources.

Environmental Assessment-External and Internal Analysis. Once the strategic issues have been identified and the mission established, further analysis is necessary to more precisely develop the strategic options. This analysis includes:

- External analysis, which pinpoints key threats and opportunities posed by the external environment, and
- Internal analysis, which is an organizational analysis of strengths and weaknesses of the agency with respect to each issue.

It is critical to develop a realistic basis for such an analysis. To merely update the existing rationale for the highway safety program based on the assumption that the future will be an extrapolation of the past, will disregard impending changes both within and outside the organization.

Situational Analysis. The situational analysis integrates the external and the internal analysis of the organization. It consolidates the information obtained through the environmental assessment. Through the analysis, a common understanding of where the highway safety program is in terms of the external and internal environmental setting can be derived. It serves as a basic reference for the objectives-setting phase. It should answer questions relating to any comparative advantages that exist while identifying the distinctive competence of the organization to achieve the desired programs.

This process includes an analysis of strengths and weaknesses of the organization and the staff. It also looks at organizational history and culture. One of the most difficult tasks for many organizations is to gain an appropriate evaluation of its own strengths and weaknesses. Many areas viewed as strengths currently or in the recent past may no longer be relevant due to changes in the program or environment. Formerly successful processes may not be successful in the future.

Strategic Objectives. Given the mission, policies, strengths, and weaknesses of the program, the next step is to develop the plausible future scenarios in which the highway safety programs may operate. In light of these possible futures, what basic alternative strategies must be developed?

Strategies. Once objectives have been established, the task of developing strategies begins. Strategies are the action plans that spell out how the objectives are to be achieved. Strategic management is making choices. Each alternative choice requires consideration of its cost, personnel requirements, agency involvement, time frames, legal and/or legislative implications, and other impacts. While available resources have a large influence on strategy selection, decisions in the public sector may more often be measured by their political acceptance.

Implementation. Strategic planning must be directly tied to the allocation

of scarce resources. Selecting a set of strategic programs also requires the dedication of the necessary resources for these programs, often for several years into the future. Budgets are instruments for spelling out the detail of strategic decisions.

Monitor, Update. Successful strategic planning requires continual review of actual accomplishments in comparison to the plan. Besides progress on each strategy versus the scheduled progress, the monitoring system tracks time and other resources expended versus the budget allocation for each program.

Strategic plans are not fixed and must be updated when major changes occur. The monitoring system should incorporate a periodic review to ensure timely and comprehensive plan updates. In this way the strategic planning process is a continuous loop.

STRATEGIC PLANNING FOR HIGHWAY SAFETY

One of the major problems of transportation systems is the injuries and fatal accidents that occur on them. In our efforts to provide personal mobility and the movement of goods, there is a cost in human life. Highway traffic accidents are one of the nation's leading public health problems. Only cancer, heart disease, and strokes claim more lives each year. Viewed in terms of years of potential life lost, motor vehicle injuries account for as many lost years as either cancer or heart disease. Society has marshalled enormous resources to combat these other health hazards. Traffic accidents must be attacked with the same vigor.

The External Environment

In order to get the views on the most significant elements of the external environment affecting traffic safety, the workshop invited speakers from Congress, a state legislature, the news media, the judiciary, a citizen-activist group, and the public relations industry to make presentations. Six major points were emphasized. Speakers said that the external environment for traffic safety programs is favorable and that the public is more receptive to potentially successful accident countermeasures. Citizen-activist groups have proven that the Congress and state legislatures will respond to public pressure for tougher laws and increased enforcement. Business-financed lobby groups have shown that countermeasures like mandatory safety belt use laws can win legislative support, and the media has shown a willingness to place, and keep, these issues before the public if it can get the material needed to work with.

The second major viewpoint expressed by the speakers was that the initiatives for highway safety programs and countermeasures have been generated by the "experts" without a proper regard for the desires of the public. The ill-fated auto safety-belt/ignition interlock system is perhaps the best example of this phenomenon. The speakers said that the highway safety program must stop being expert driven and become market driven and that safety programs must be responsive to public opinion.

The third major point, expressed by a public relations executive, stressed

the use of public opinion polling and sampling to identify and assess targets of opportunity as well as the problem areas of concern to the public. He pointed out that when conducting public opinion polls on highway safety: first, there is usually greater than anticipated public support for stronger highway safety efforts (e.g.: tougher laws on drunk driving, seat-belt mandatory use laws, etc.), but such support is often felt to be "soft" and not really to be believed by legislators and decision makers. He also stressed that momentum seems to be key in getting or failing to get acceptance of traffic safety countermeasures. Public opinion polling, he said, can help to gauge such movements in public sentiment and to indicate when the moment seems to be right for certain actions.

The fourth major point was that it is necessary to enlist the aid of the education community to get the safety message across to the public. It is hoped that early school training will lead to a better-informed society and to a change in attitudes. One of the changes in attitude which should be sought is the realization on the part of individuals that they must accept responsibility for their own actions.

The judge who addressed the workshop spoke plaintively about the traffic safety problem as it appears from his seat on the bench. The present preoccupation with booze, belts, and speed, he said, can in the long run have only a limited impact on the traffic safety problem. He sees in his courtroom, day in and day out, people whose values, habits, and mores reflect a complete lack of regard for social responsibility. Greater social consciousness and responsibility is more important than punitive actions in long-term improvement in highway safety.

The fifth major point made was that in focusing the attention of the public on safety, the involvement of the media is crucial. Media coverage is the sine qua non of the galvanization of public opinion. To gain media interest, it is essential for safety information to be packaged in an accurate, yet interesting and intriguing manner.

The media spokesman said that we have failed to get our message across, and the public has come to accept our present level of human and economic losses from highway accidents, because they assume that the situation can't really be much improved.

Sixth, the speakers said that citizen activist groups should be encouraged and their actions supported by appropriate means.

Internal Environment

There is systematic and pervasive factionalization among the various governmental units within the traffic safety network. This results in the formation of incompatible policies and the issuance of conflicting regulations and requirements.

Over the years, the national highway safety program has gone from a prescriptive approach, utilizing 18 specific standards for the accomplishment of program goals and objectives to today's process approach, permitting states and localities to define their own goals and objectives, so long as they fall within approved program area and utilize a sanctioned process for defining the problem. There have been repeated attempts to sharpen the focus toward the

most effective as well as most cost effective solutions. These efforts have resulted in numerous catchy-slogan programs -- "13 must items," "the dirty dozen," "the Super 8," "the Six-Pack," etc. Today's highly touted approach is termed "Comprehensive Community-Based Programs."

The traffic safety network as a whole has excelled in its task of identifying many of the problems on our highways. However, some elements of the transportation safety community have become fixated on analysis to the exclusion of remedial action.

Citizen activist groups like MADD, SADD, RID and other independent groups outside the formal highway safety programs suggest the successes which may be possible where flexibility and creativity can be combined with action oriented local initiative.

Highway Safety Trends

There are a number of trends in highway safety. These can be summarized as follows:

The highway environment continues to present major problems. Over 44,000 persons were killed on our nation's highways in 1985 at a societal cost in excess of \$60 billion.

Economic and political trends in the United States signal a desire to reduce investment in federal government programs. We can anticipate greater pressure to make highway safety programs financially self-supporting and move the responsibility to state and local governments.

Highway safety is becoming more controversial as certain measures, like minimum drinking ages, limitations on alcohol sales or advertising, mandatory safety belt use laws and other measures are proposed by an increasingly determined public.

More organizations are becoming interested in highway safety, providing more opportunities for cooperation, as well as competition.

As trucks get larger and passenger cars become smaller, the increasing disparity in size contributes to increases in the severity of accidents. Although accidents involving trucks represented less than 4 percent of all accidents in 1984, nearly 11 percent of all fatalities involved a large truck.

PROGRAM ASSESSMENT

A critical element in the strategic planning process is the assessment of strengths and weaknesses of a program or organization. A general assessment of the strengths and weaknesses of the Highway Safety Program indicate:

Strengths. There currently exists:

1. An established highway safety community;

2. An established networks among federal, state, and local governments, private citizens and academics;
3. Professional competence;
4. A general support for programs to resolve safety programs; and
5. Organized citizen action groups.

Weaknesses. There currently exists:

1. A high degree of reliance on federal funding for state and local highway safety programs, resulting in a strong federal direction over the program;
2. Duplicative and/or uncoordinated or conflicting activities dissipating limited resources;
3. Continuing deficiencies such as: problem identification, definition of the State Highway Safety Agency as a lead agency; and
4. A lack of understanding of how to change or influence driver behavior.

CRITICAL PROGRAM AREAS

In an effort to focus the workshop on developing a strategic planning process for state highway safety programs, the workshop was divided into eight program areas. These eight program areas were:

1. Driver Safety Programs

The qualification of today's licensed driver, especially those operating heavy trucks, is a growing concern. More successful driver examination and driver improvement programs are needed in today's complex traffic environment.

2. Alcohol Countermeasures

Alcohol abuse continues to be a highway safety problem in this country. Alcohol is involved in over 50% of all traffic fatalities. Effective countermeasures, therefore, will have significant impacts on the aggregate safety environment.

3. Occupant Restraints

Failure to use the safety belts that are in nearly every passenger car on the road today results in more fatalities and injuries than would occur otherwise. It is estimated that fatalities in passenger cars could be reduced by 50% if everyone used safety belts.

4. Traffic Records

Despite improvements in this area, problems remain. Some of the continuing problems are: data are not nationally

uniform; inaccuracies exist in the analysis of accidents and in recording of data; data are often incomplete; certain data categories (e.g. alcohol and drug involvement data) may be missing entirely; and data which are available are not analyzed adequately to support effective program decision-making.

5. Police Traffic Services

Virtually every traffic safety program involves law enforcement to some degree. Police traffic safety activities and programs have a direct influence on efforts to promote and maintain safe driving practices. Critical issues such as alcohol countermeasures, 55 mph compliance, safety belt use laws, motor carrier and driver safety depend on police selective enforcement for their overall success.

6. Highway Spot Improvements

Effective highway facility safety improvements must be provided within the constraints of limited financial resources. The condition of the nation's highway system has deteriorated during the past decade as bridges and pavements constructed in the post-World War II building boom have passed the limits of their design life. In order to enhance safety with limited resources, we need to identify the most cost-effective safety improvements that can be implemented under both new construction and as part of projects undertaken to resurface, rehabilitate, and restore existing roadways.

7. Commercial Motor Carrier Safety

Commercial vehicle traffic is increasing. Many highways are not well suited to accommodate this increased traffic. Further, commercial vehicles are getting larger while passenger cars are getting smaller. Recent deregulation has created an environment of intense competition. There is a concern that maintenance and safety criteria have suffered because of the severe financial situation in the industry.

8. Driver Education

Driver education programs, the mainstay of past highway safety activity, have been under constant scrutiny and criticism. Many school districts are under pressure to hold the line on cost and have reduced the resource commitment to driver education.

Summary

The purpose of the workshop discussions was to help the participants to become familiar with the strategic planning process by applying it to the eight issues described above. It was not an attempt to define these issues as the critical issues facing highway safety or to advocate a national program emphasis. That is the appropriate function of the states themselves.

Strategic highway safety plans may be developed by a state. They begin at the point after the agency has:

1. completed the environmental scan and selected the key issues,
2. analyzed the agency's current position, its history, its cultural environment, and its strength and weaknesses,
3. developed an integrated view of the internal and external environments,
4. developed a vision of the future, defined its of mission, and set goals and objectives, and
5. identified strategic issues and critical factors for success.

After the above has been developed by the agency, the eight specified program areas may then be evaluated. The next steps would be to take the eight program areas and integrate them into a strategic plan for the agency. Such a strategic plan would include an analysis of impacts of the plan, a direct tie into the budget and resource allocation process, and a process for achieving the change. It would also include a method for measuring success and effectiveness of the programs. The failure to measure program performance has been one of the major shortcomings of the current state highway safety programs.

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