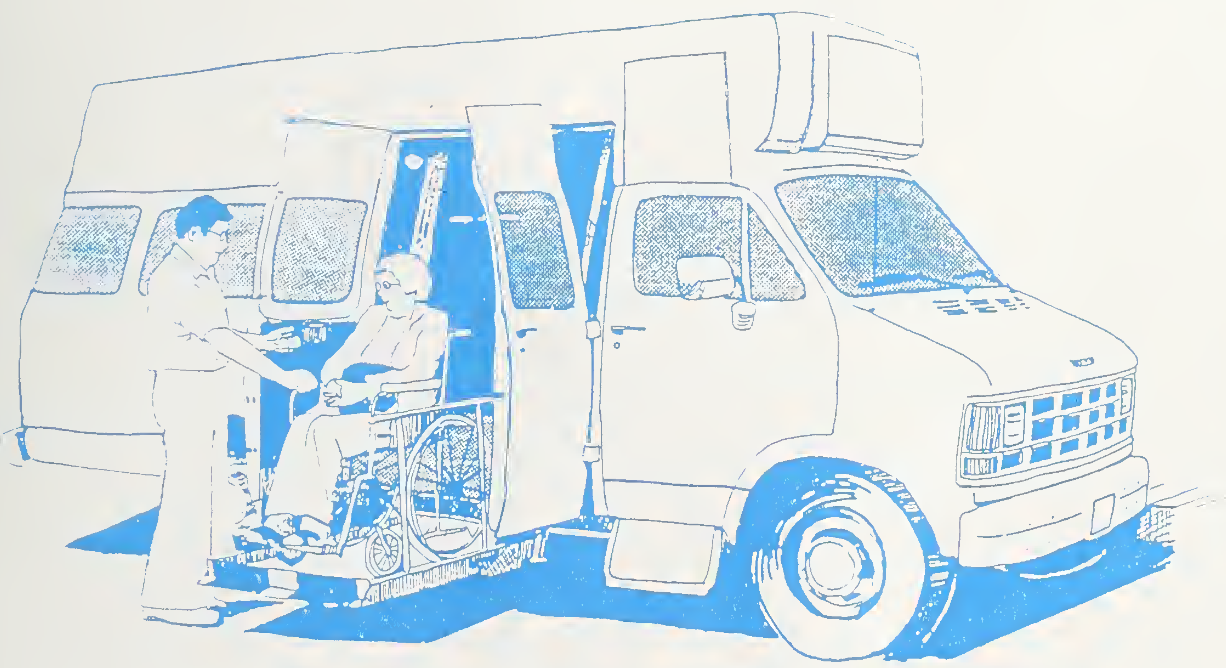
U.S. Department of Transportation

Rural and Small Urban Transit Manager's Workshop
Student Workbook

July 1989



UMTA Technical Assistance Program

Rural and Small Urban Transit Manager's Workshop
Student Workbook

Student Workbook
July 1989

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PREFACE

The Rural and Small Urban Transit Manager's Workshop Program was initially developed by EG&G Dynatrend in 1980 under sponsorship of the Federal Highway Administration (FHWA). Over the subsequent three years, EG&G Dynatrend conducted 45 workshops in 40 states, providing training for over 900 transit managers and operators. More recently, EG&G Dynatrend has been under contract to the Urban Mass Transportation Administration (UMTA) to update the workshop program and to develop a new detailed curriculum.

The updated workshop program is oriented to more mature transit providers than the initial program with the presumption that those in attendance will have at least a moderate degree of transit management experience. Thus, topics related to system management and operations are emphasized over planning aspects. Reflecting this orientation, the workshop is subtitled: "Managing the Present and Preparing for the Future." Recognizing the diverse training needs of transit managers, the workshop consists of six core topics to which the participants at all workshops will be exposed and twelve optional topics from which a number can be selected by the attendees. The updated workshop is characterized by a strong participatory emphasis which proved effective throughout the original workshop program.

Workshop documentation includes three distinct elements: **Student Workbook**, **Instructor's Manual**, and **Workshop Viewgraphs**. This portion is the **Student Workbook** which consists of an introduction which describes the organization and content of the workshop and 18 topical presentations to reinforce the workshop technical sessions. The format for each topic consists of a concise presentation of objectives, issues, approaches, considerations, exercises and references. The **Instructor's Manual** provides detailed guidance for the trainers who will be facilitating the workshops. The **Workshop Viewgraphs** are a set of originals from which transparencies can be made for use during the workshop.

These materials are the result of the review of a broad cross section of people actively involved in various aspects of rural and small urban transit system funding, management, operations and oversight. A pilot workshop was held in Columbia, Missouri attended by rural transit practitioners representing both local operators and state transportation agencies, several of whom have been actively involved in the Rural Transit Assistance Program (RTAP) National Advisory Board. Subsequent to the pilot workshop, all draft materials were reviewed by UMTA and a committee of the RTAP Advisory Board.

The dedication of many people contributed to the development, review and production of the workshop program and materials. Roger Tate of UMTA's Office of Technical Assistance and Safety was the technical monitor for the updated workshop program. Norman Paulhus of the U.S. DOT Technology Sharing Office provided guidance related to documentation format and reproduction. Tom Luglio was the EG&G Dynatrend Project Manager assisted by several independent consultants -- Peter Schauer was the Principal Investigator responsible for the technical structure and content of the workshop; Patricia Weaver and Michael Audino, in addition to Peter, developed workshop topics and instructional

guidance and facilitated the related sessions at the pilot workshop; and Ruth Potter provided background research. The attendees at the pilot workshop were instrumental in the refinement of the updated workshop and included (with state):

Don Alexander (IA)	Dorothy Bartels (NE)
Jo Anna Cartwright (AR)	Jesse Dunn (IL)
Ann Ellis (MO)	Gloria Frutiger (IL)
Tom Hobson (IL)	Tom Hood (MO)
Betsy Kachmar (IN)	Mike Murphy (OR)
Marty Pliske (MO)	Joni Reid (OR)
John Rice (MO)	Pat Saindon (MT)
Larry Sims (MO)	Linda Steppenoff (MO)
Pam Ward (IA)	Jack Wheat, II (AR)
Troy Wilburn (IL)	Linda Yeager (MO)

Additional review of workshop documentation was provided by the RTAP Advisory Board. Larry Harman, Chairman and Carol Everett, National Project Director, coordinated the review by Advisory Board members who included:

Richard Curran (TN)	Lee Deter (CA)
Betty Green (IL)	William Henderson (WA)
David King (NC)	William Luckerson (AL)
Patricia Saindon (MT)	Pam Ward (IA)

Final EG&G Dynatrend document preparation was coordinated by Carol Schweiger with production assistance from Nell Russo.

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INTRODUCTION

The "Small Urban and Rural Transit Manager's Workshop: Managing the Present and Preparing for the Future" organizes the subject matter of fifteen functional transportation areas into four major workshop elements. The major workshop elements are:

- Organizational Development, Management Reviews and Strategic Planning
- Administration and Management
- Operations and Service Provision
- Service Planning and Marketing

The arrangement of these major workshop elements and functional areas is illustrated in Table 1.

Table 1. Major Workshop Elements and Functional Areas

- Administration and Management
  - Organization and Governing Body
  - General
  - Budget
  - Reporting Procedures
  - Revenue Management
  - Procurement Practices
  - Expenditures
  - Disbursements
  - Facilities and Property Management
  - Personnel
- Operations and Service Provision
  - Service Provision
  - Fleet Characteristics
  - Maintenance
  - Safety
- Service Planning and Marketing
  - Service Planning
  - Public Involvement
  - Marketing

The major workshop elements have been organized into six core topics and twelve optional topics. The six core topics and three of the optional topics are designed so they can be presented in a three-day period (per Table 2).

Table 2. Rural and Small Urban Transit Systems Manager's Workshop

Day 1

9:00 - 10:00	Introduction and Workshop Philosophy
10:00 - 10:15	Break
10:15 - 12:00	Organizational Development, Performance Review, and Strategic Planning
12:00 - 1:15	Lunch
1:15 - 3:00	Organizational Development, etc., continued
3:15 - 5:00	Risk Management and Insurance
Evening	Group Dinner and Activity

Day 2

8:30 - 10:00	Substance Abuse
10:00 - 10:15	Break
10:15 - 12:00	Safety and Emergency Procedures
1:15 - 3:00	Safety, etc., continued
3:15 - 5:00	Productivity Improvements

Day 3

8:30 - 10:00	Contracting and Coordination
10:00 - 10:30	Break and Checkout
10:30 - 12:00	Option I
1:15 - 3:00	Option II
3:15 - 4:00	Option III
4:00 - 4:30	Evaluation and Question and Answers

CORE TOPICS

TOPIC I: Organization Development, Strategic Planning and Management Reviews

This topic presents information about how organizations develop, change, improve or fail. Information about performance evaluation and monitoring is also presented to help participants review their own organization. Finally, this course concludes with information about strategic planning and how to make changes brought about by the performance evaluation process in a systematic way.

TOPIC II: Risk Management and Insurance

Principals of Insurance and risk management are presented. Participants are instructed in how to develop their own risk management program with consistent administrative and operating policies and procedures.

TOPIC III: Substance Abuse

Issues concerning substance abuse are presented along with possible policies and procedures to help reduce or control substance abuse.

TOPIC IV: Safety and Emergency Procedures

Instruction and exercises to help participants recognize the need for a safety program and ways to develop a safety and emergency procedure program are presented in this topic.

TOPIC V: Contracting and Privatization

Participants are instructed in ways to increase service or reduce costs through contracting. A process beginning with planning for contracting through actual contracting is presented.

TOPIC VI: Productivity Improvements

This session, which focuses on sharing productivity "tips" among participants, introduces participants to ideas for helping them make improvements. Additionally, recognized productivity enhancement techniques and information about them is presented.

OPTIONAL TOPICS

Participants are surveyed prior to the workshop to determine which topics will be presented in the "optional" portions of the program. The workbook contains material on each option regardless of whether it is selected by participants for presentation. Optional topics are:

- o Administration
    - Optional Topics:

-- Board Development and Training
-- Personnel Management
-- Communications Skills
-- Cost Control
-- Facilities and Property Management, including inventory control
-- Micro Computers

o Operations and Service Provision

- Optional Topics:

-- Coordination
-- Fleet Characteristics and Selection
-- Maintenance Management

o Service Planning and Marketing

- Optional Topics:

-- Pricing
-- Marketing
-- Enhancing Public Involvement

APPROACH TO INSTRUCTION

Strong Participatory Aspect. The workshop is designed to establish an academic setting conducive to a high level of involvement of attendees in the educational process. Activities are used which emphasize the practical knowledge and skills necessary for managing transportation systems in rural areas.

Prior to presenting the workshop, all registered attendees are surveyed to determine their level of experience and interest areas. The level of experience data is used to divide the attendees into teams, or working groups, according to criteria which promote a variety of experience and geographic diversity within the group. Each team organizes itself by designating certain roles to team members (e.g., team leader, secretary), in order to fulfill the team's responsibilities during class exercises. Teams will stay intact for the duration of the workshop and will respond to exercises as a unit. Presentation assignments will be rotated and active participation for all attendees is stimulated throughout the workshop.

Interest area data is used to determine the content of portions of the workshop. Three segments of the workshop are designated "optional". The optional instruction content will be determined by the attendees themselves prior to the actual workshop. This is being done because it is believed that while there are certain core subjects that all managers will benefit from, each geographic area or group of managers may have different needs and should be allowed to select instruction according to those needs.

Use of Case Studies. In order to achieve a local focus for a national audience of potential attendees, the workbook has been developed which makes use of "neutral" case studies. The case study approach provides the opportunity to use actual data and real world circumstances in illustrations and class exercises that fulfill the educational objectives of the workshop. The design of the workshop is to facilitate the interaction of attendees with a breadth of experience, and secure their active participation in the educational process through formal class exercises and scheduled discussion opportunities.

WORKSHOP MATERIALS

Participants are supplied with a workbook and key materials for further study. Sufficient materials are supplies so note taking is minimized and course interaction is maximized through questions and answers, and participant exercises.

The workbook covers each topic area with a general discussion of issues and summary information along with a bibliograph for follow-up.

ORGANIZATION DEVELOPMENT, PERFORMANCE REVIEW AND STRATEGIC PLANNING

OBJECTIVES

The training objectives of this session are:

1. To bring a recognition and understanding of the field of Organization Development;

2. To present principle techniques of recognizing an organization's strengths and weaknesses through the performance review process;

3. To explore and apply process of setting Goals, Objectives, Targets, Measures and Activities, and show the relationship with the performance review process;

4. To develop an awareness of issues associated with bringing change to an organization brought about by the organization development process; and

5. To begin to build skills to be successful change agents.

ISSUES

Sooner or later every transit service large and small wonders how they "measure"? Or, the service is asked to explain their funding level, service level or some other aspect of their organization. Few transit managers or boards can successfully respond to these types of inquiries unless they have established some process to monitor their service and make changes for improved efficiency and effectiveness. Yet, despite the current emphasis on monitoring for improved performance, most systems have not developed a monitoring and change process for their organization. Gordon "Pete" Fielding in A Strategic Approach to Transit Management writes:

> Both managers and transit directors have become so involved in day-to-day operating decisions that they do not have time to assess the strategic health of their agencies. They are not able to monitor constituency and community expectations or to spend sufficient time with employees determining how these expectations might be met with funds from different sources. Federal agencies have exacerbated the problem by accepting incomplete plans and fiscal programs.(1)

Fielding makes the point that few transit services have a strong strategic approach to their service based on a clear goal or mission statement, and that Federal Agencies have not been forceful enough in requiring them. Yet, without a clear goal or mission statement, it is not possible to establish objectives and targets that can be measured. Without objectives and targets, supporting tasks and activities become diffused, fragmented and all too often misdirected. (These are also characteristic of the "brush fire" approach to management of which so many managers state they are tired of conducting.)

The purpose of this chapter is to make managers aware of techniques for improving their organizations in a systematic manner. This chapter focuses on organization development, strategic planning and bringing change to the organization.

Fielding's "Steps in Strategic Management" (Figure I-1), are a specific application of a broad theory of organization change called "Lewin's Change Model." Lewin's "change model" consists of three steps (Figure I-2).

Fielding's "Possibilities", "Expectations", "Capabilities" and "Assessment" steps correspond to Lewin's Unfreezing. Fielding's development and assignment steps correspond to Lewin's Changing and, finally, the measurement of performance corresponds to Lewin's Refreezing step.

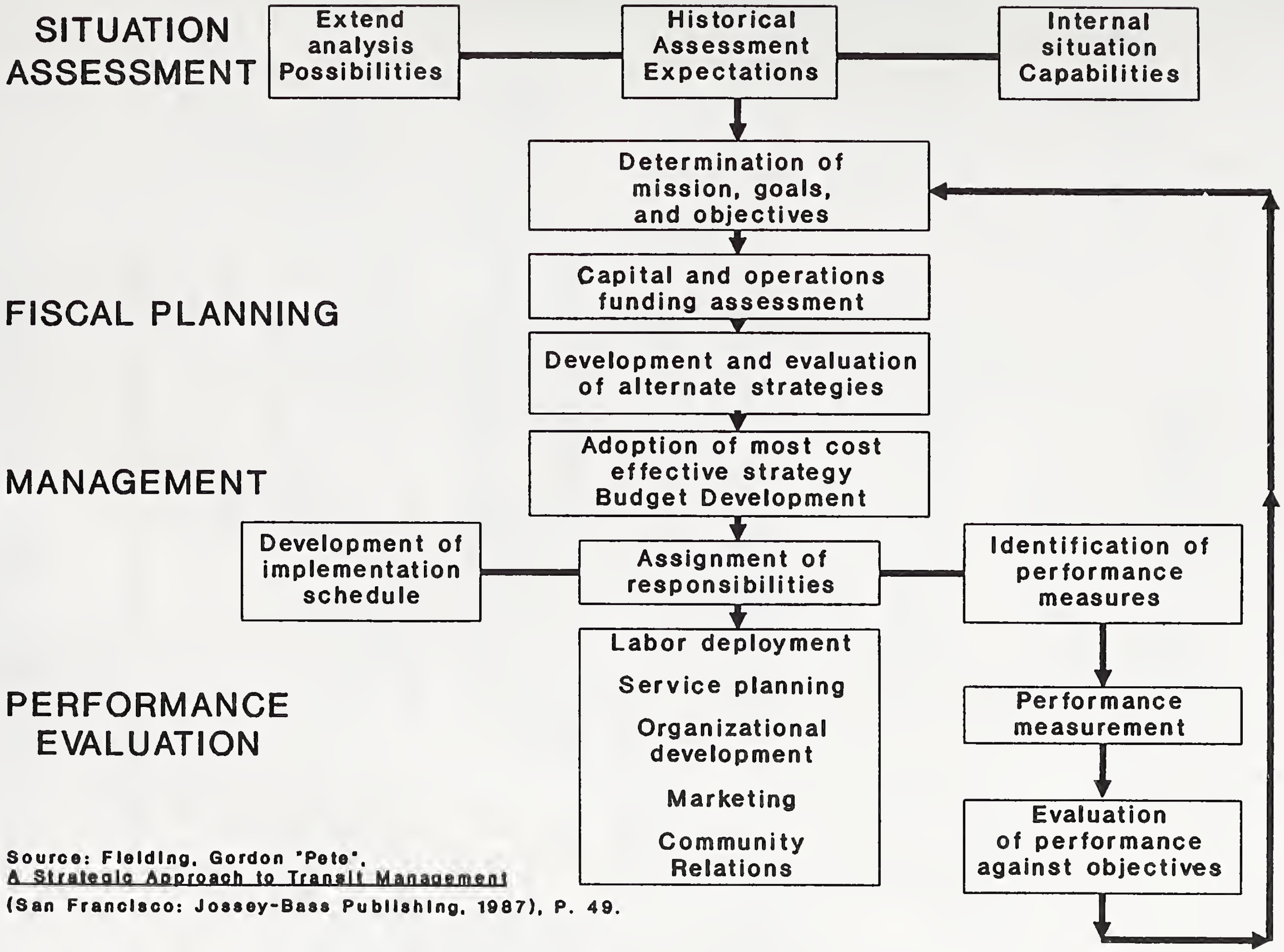
Lewin's model of change is at the core of all organization change. There must be some unfreezing on separation from the status quo and a movement towards a new "refrozen" existence for change to occur.

Lewin's model is also at the core of a body of knowledge called "Organization Development." Huse and Cummings in their text, Organization Development and Change define organization development (OD) as:

> ...an evolving mixture of science and art. It is both a professional field of social action and an area of scientific inquiry. The practice of OD covers a wide diversity of activities, with seemingly endless variations upon them. Team building with top management, structural change in a municipality, and job enrichment in a manufacturing firm are all aspects of OD. Similarly, the study of OD addresses a broad range of topics, including the effects of change, the methods of organizational change, and the factors influencing OD success..
>
> Although a number of conceptions of OD exist, with considerable overlap among them, the following concept incorporates the most current views and is used in this book: a systemwide application of behavioral organizational strategies, structures, and processes for improving an organization's effectiveness.(3)

Organization development examines what French and Bell have referred to as the "formal (overt)" aspects and the "informal (covert)" aspects of an organization's culture.(4)

Organization development further examines the relationship of the organization to its environment. These two concepts are shown in Figure I-3 which adapts French and Bell's organizational Iceberg to reflect the influences of the organization's environment. Central to the Figure I-3 "Iceberg and Environment" is the notion that while the environment is never static, the organization may have a tendency towards the status quo (the tip of the iceberg always points up) or the organization flatly may not be able to or want to change as the environment changes. Worst of all, the organization may not recognize a need to change to adapt to its environment. The key concept of performance evaluation can help an organization adapt and know when to change. And, as previously noted, performance evaluation is a part of the unfreezing process.



Source: Fielding, Gordon "Pete", <u>A Strategic Approach to Transit Management</u> (San Francisco: Jossey-Bass Publishing, 1987), P. 49.

Figure I-1. Steps in Strategic Management

UNFREEZING

↓

MOVING

↓

REFREEZING

1. Unfreezing. This step usually involves reducing those forces maintaining the organization's behavior at its present level. Unfreezing is sometimes accomplished by introducing information that shows discrepancies between behaviors desired by organizational members and those behaviors they currently exhibit.

2. Moving. This step shifts the behavior of the organization or department to a new level. It involves developing new behaviors, values, and attitudes through changes in organizational structures and processes.

3. Refreezing. This step stabilizes the organization at a new state of equilibrium. It is frequently accomplished through the use of supporting mechanisms that reinforce the new organizational state, such as organizational culture, norms, policies, and structures.

Figure I-2. Lewin's Change Model

Source: K. Lewin, Field Theory in Social Science, (New York: Harper and Row, 1951) quoted in E. Huse and T. Cummings, Organization Development and Change (St. Paul: West Publishing, 1980), pp. 19-20.

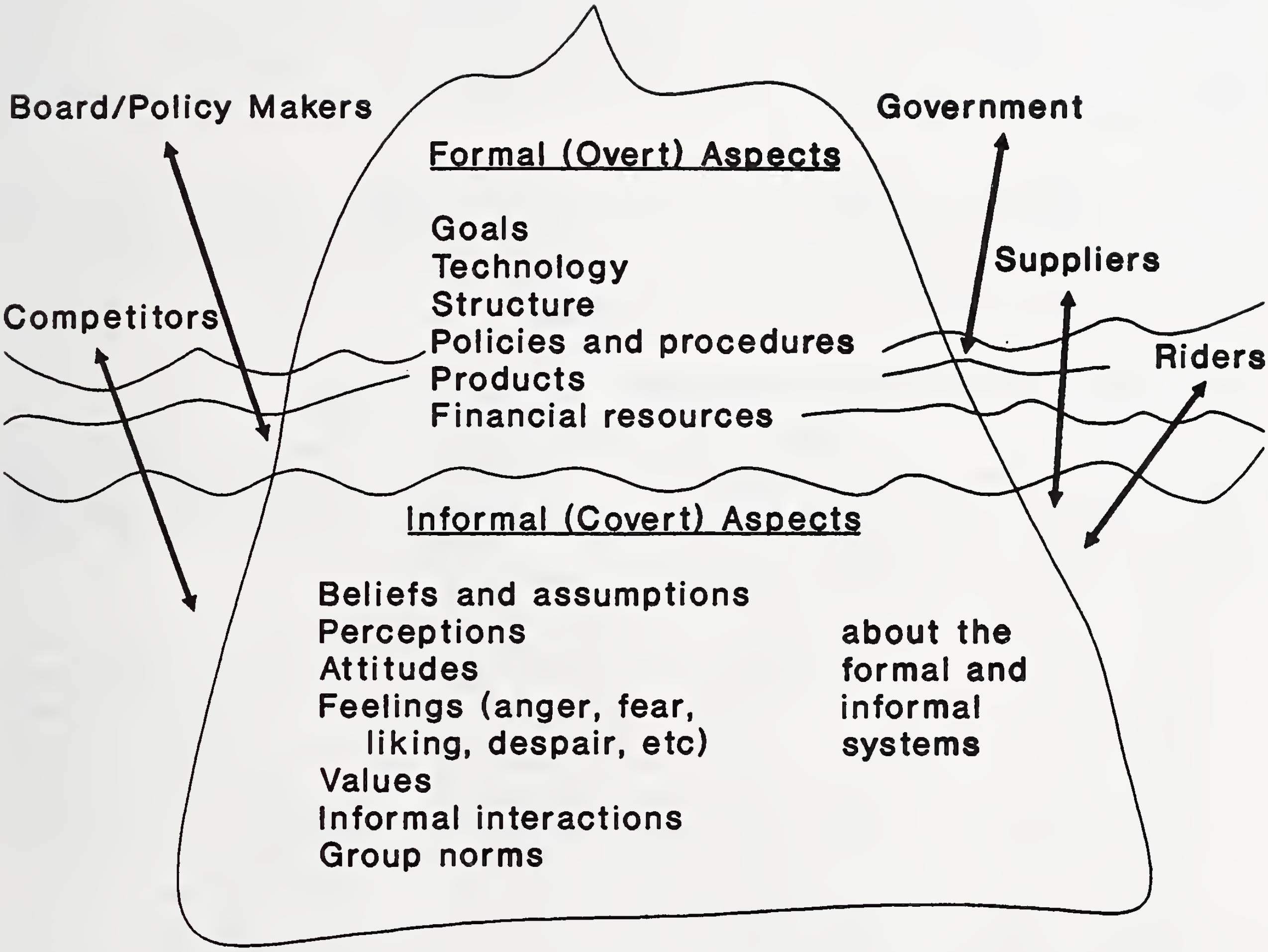


Figure I-3. Organization Iceberg and the Environment

Source: Adapted from W. French and C. Bell, Jr., Organization Development (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1984) page 18 and D. Harvey and D. Brown, An Experiential Approach to Organization Development (Englewood Cliffs, New Jersey: Prentice-Hall, Inc. 1988), p. 2.

Two types of performance evaluations are important when used in an organization review conducted during the unfreezing process: 1) Quantitative analysis based on available data (such as cost per mile for last 12 months) and 2) systems analysis based on detailed program review of accepted industry practices.

Quantitative analysis of data, such as cost per passenger, for a sufficient time period, will allow trend analysis of the system. Trend analysis used in this way measures the service's performance against itself. The performance data can also be used to judge a system's performance against industry standards (or peer groups in the absence of industry standards). Peer groups and industry standards are used to create an "average performance." (The theory being that at least all services seek to be average or better.) Inaccurate average performance suggests that the service may have management system problems.

Quantitative analysis will usually lead to a systems review of accepted practices (Figure I-4, Sample Accepted Practices Questions) in an attempt to discover why a particular aspect of an agency is deteriorating or improving. Good or accepted management systems will at least generate enough raw data to be evaluated and start the process over again.

Mission, Goals, Objectives, Targets, Measures, and Activities

The review process will undoubtedly reveal areas that need improvement or modification. The skilled manager will attempt to categorize and fit the needed modifications into targets and objectives that are consistent with the goals and capabilities of the organization. This process is similar to a practice known as management by objectives (MBO).

> "In a typical use of management by objectives each administrative officer of an institution formulates a series of specific behavioral objectives for himself and his department for the coming year. These objectives need not all be new tasks or projects, but might simply be a continuation of activities in operation prior to the adoption of MBO. The objectives are formulated to be compatible with the overall institutional goals and objectives stated usually by the president with the advice of a faculty or administrative planning committee or both. Each administrative officer works with the individual to whom he reports to reach agreement on the specific goals and objectives to be accomplished within the year. Also agreed upon are the priorities assigned to the objectives: the time schedule for their accomplishment; the resources needed to implement them; and the behavioral criteria for the objectives so an observer can determine whether or when the objectives are accomplished."(5)

There are numerous descriptions of the process of providing organization direction besides MBO. The key to all is the fact that all describe some big activity in the form of mission or goal statement and move to accomplish the mission through smaller objectives, targets and tasks (Figure I-5).

Provider maintains the basic books of accounting:		
(a) General Ledger	yes	no
(b) Accounts Receivable/Cash Receipt Journal	yes	no
(c) Accounts Payable, Cash Disbursement Journal	yes	no

There is a current chart of accounts.	yes	no

There are written procedures for:		
(a) The retention of records	yes	no
(b) Reporting requirements, including a schedule or report deadlines	yes	no
(c) Requirements and schedules for audits	yes	no

Figure I-4. Sample Accepted Practices Questions

Source: Handbook for Transportation Management Review, Montana Department of Commerce, Passenger Transit Bureau, October 1986, USDOT, Technology Sharing, DOT-I-87-18.

Mission — The mission of our organization is to improve the mobility of the residents of our county through the use of public transit.

↓

Goal — In order that our service is easy to use walking to the bus should be minimized.

↓

Objective — No person over the age of 80 should be required to walk more than 1/8 mile to a bus.

↓

Target — By March 3, 1998, all bus routes will pass within 1/8 mile of 75% of the population of persons over the age of 80.

↓

Task — Identify where all persons over the age of 80 live by December 24, 1989.

Measure — Percent of persons over age 80 within 1/8 mile of a bus route. (Did we meet our target of 75% by March 3, 1998?)

Figure I-5. Relationship of Mission, Goals, Objectives Target, Tasks and Measures

Mission statements are usually not set by management. The founders of the organization or policy makers usually set the mission. Therefore management's first input is into goals or the interpretation of the mission. Goals are more specific than mission statements but are not as specific as objectives. Objectives are specific statements which can be achieved. Targets indicate a quantitative or qualitative statement of some part of an objective.

The next step in the process of providing the organization with direction is the establishment of measures. Measures allow an observer to determine if a standard has been met.

A description of tasks or activities to meet the target is the final step in providing specific direction to the organization. It is often a step overlooked merely assumed to exist and consequently, it is often the greatest problem area. Tasks and activities should be directed towards the achievement of a target and should be dated and specific.

Figure I-5 summarizes the process of specifying organizational direction and provides an example of its use.

Bringing Change to an Organization

The Organization Development process and establishment of goals, objectives and targets will generally indicate the need for some behavioral and operational changes in the organization. Change is sometimes difficult to bring about in individuals and organizations, yet change is necessary to adapt to the dynamics of the environment. Because of its difficulty and necessity, change has been studied widely by psychologists, sociologists, economists, and others. Much has therefore been written about change. The following list summarizes some of the principle ideas about change and is from Cooperative Communications-Forces Yielding Change, University of Wisconsin Extension.(6)

Some Reasons for Resistance to Change:

1. The force of custom and tradition: there is a tendency for people to accept "what has been" as normal and right.

2. Perceived risk: proposed changes often seem to involve risk, or people are uncertain about how much risk is involved, with the result that change may be resisted as a means of reducing risk and uncertainty.

3. Added costs: change may be resisted because it will cost something extra in money, time, and other resources.

4. Threatened positions: people may resist the proposed change because it threatens their security in their position, their prestige, appears to be a rejection of earlier programs they have been identified with, etc.

5. Misunderstanding the motives of promoters: people may resist a proposed change because they misunderstand or do not trust the motives of the persons promoting the change.

Principles of Individual Motivation:

1. The need for change must be seen as real.

    a. Evidence should be provided to show how the economic or competitive position of the organization will be strengthened.

    b. Evidence should demonstrate how the proposed change will affect the situation of the riders.

2. The proposed change should complement traditional programs.

    a. People must be helped to distinguish clearly between the goals of the organization and the means (programs and services) to achieve those goals.

    b. Effected persons need to understand whether the proposed change will complement, or will compete with, the traditional programs and services.

    c. If the change complements traditional programs and services, people must understand what the added costs will be in relation to the added benefits.

    d. If the change replaces traditional programs and services, evidence must be presented to show that the new programs and services will be more valuable than were the old ones, and will in fact improve the chances of achieving the goals of the organization.

3. Immediate and lasting benefits more likely will be accepted.

    a. Effected persons must know when they will receive the new or additional benefits, and whether the benefits will begin in a relatively short time.

    b. Effected persons need assurance that they will not be asked to support additional changes to resolve the same problem in the near future.

4. Risk must be understood in terms of benefits.

    a. Effected persons must understand the degree to which risks are involved in proposed changes in the organization.

    b. Effected persons are more likely to accept small risks, but will accept moderate risks if the benefits to be gained are believed to be extremely valuable.

5. Persons go through the decision-making process at different speeds.

    a. Sufficient time must be allowed for the majority of the people effected to make a rational decision regarding change.

b. The organization may have to take special steps to provide information to some people who are behind the majority in the decision-making process.

c The organization may have to take steps to slow down a few individuals who are far advanced in the decision-making process, in order to allow others to catch up.

6. The time necessary to make a decision varies according to the type of change being proposed.

   a. The time schedule for making decisions must be varied according to the complexity of the proposed change.

7. Different kinds of communicative influences are appropriate for each stage of the decision-making process.

   a. A variety of communication techniques should be used to inform and motivate effected persons.

   b. Formal communication techniques are more appropriate for building awareness, interest, and re-evaluation of change.

   c. Informal communication techniques are more influential in the evaluations and decisions concerning change.

8. Different kinds of communicative influences are appropriate for different types of changes.

   a. For each type of change being proposed, appropriate methods must be found to communicate the necessary information to individual members during the evaluation and decision phases of his decision-making process.

Group Processes and Motivation

9. Leaders can influence others to the extent that all are committed to the goals.

   a. Leaders and others whose commitment to the organization has been proven over time will be more effective in motivating other committed persons.

   b. Relatively uncommitted people can be motivated by taking into account their special needs and interests.

10. The greater the prestige of a person or leader, the greater will be his ability to motivate others.

    a. Prestigious opinion leaders in the organization should be identifies.

    b. Opinion leaders should be involved in the study of problems and their possible solutions.

c. Opinion leaders will be most effective in motivating and influencing others who have socio-economic characteristics similar to those of the leaders.

11. All people in the organization who will be affected by a change should share information about the change.

    a. Decide what subgroups in the organization will be affected by the proposed change.

    b. Decide on methods whereby information regarding the change can be channeled to all members of these groups.

    c. Provide for feedback from these groups.

12. Individuals and subgroups within the organization should develop jointly the belief in the need for change.

    a. The recommendation for change should evolve from within the organization, rather than be imposed from the outside, or forced by only one or two subgroups.

    b. Motivation for change can be strengthened by arranging for all subgroups to be represented in the decision-making process.

    c. The subgroup representatives should be provided the opportunity for joint study of the organization's problems.

13. Changes in any one part of the organization will likely affect other parts, causing strain.

    a. Information must be presented regarding how the proposed change will affect all subgroups of the organization.

    b. New relationships, responsibilities, or obligations between subgroups of the organization must be clearly specified and understood by all people in the various parts of the system.

    c. The importance of each subgroup to the success of the total organization must be emphasized, minimizing the feelings of threat and loss of prestige to be caused by the proposed change.

<u>Characteristics of a Successful Change Agent</u>

Whether change is being brought to the organization by an outside change agent or the manager is helping an employee change, consider what it takes to ask for help in making a change:

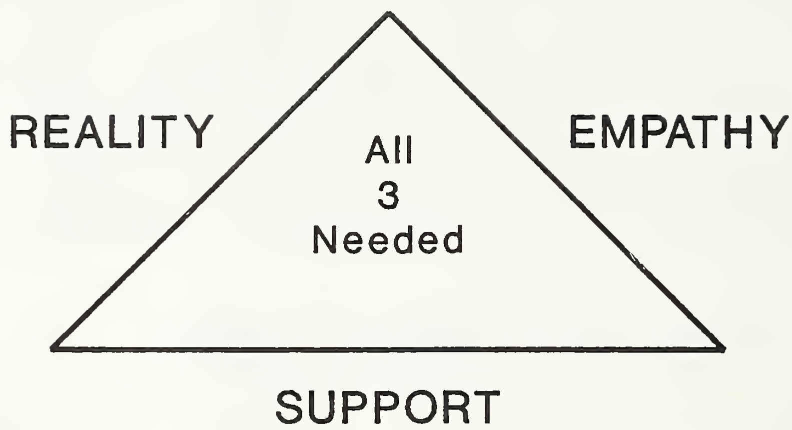
a. An admission of failure or defeat
b. A willingness to expose one's weakness
c. A willingness to be advised and accept power over one's life
d. A willingness to risk the unknown -- to give up the present, however bad, for something that may be worse(7)

With these issues associated with asking for help in making a change is it any wonder why most organizational change comes through the process of organization development? (That is, some organized assessment -- an audit or review-- which shows an organization where it needs help or improvement.) Ultimately, all help and change should be centered on the interests of the organization and be based on reality and immediate needs as revealed through some formal assessment.

Successful helping or changing can only be brought about if it is based on the "Trinity of Helping": Reality, Empathy, and Support (see Figure I-6). Any part of helping is ineffective without the other two parts: <u>Reality</u> means recognizing the true situation as revealed through the organization development process. It should not involve false reassurances or overprotection. <u>Empathy</u> Is feeling with an for a person, not <u>like</u> him. Empathy means you accept or respect the person yet may not agree with what he does or how he lives. <u>Support</u> offers material help and boosts the spirits. A person's spirits can be boosted when they sense a "helping feeling." A "helping feeling" between two people exists when:

1. Each sincerely wants to understand the other
2. Each is sensitive to the other's attitudes
3. A warm, friendly interest exists without emotional overinvolvement(8)

Attitudes speak more loudly than words. Even so, a change agent's intentions may be misinterpreted. In the long run, it's what the organization or individual <u>thinks</u> is intended that counts and you can only effect what the organization or individual thinks by carefully attending to the "Trinity of Helping."



1. (Reality) "This is it."

2. (Empathy) "I know it is difficult."

3. (Support) "I am here to work with you if you want me and can use me."

Figure I-6. Trinity of Helping

Source: B. Rice and J. Priester, Training Home Economics Program Assistants to Work with Low Income Families , Washington, DC: USDA Federal Extension Service, November 1965), p. 54.

EXERCISES

EXERCISE 1

Using Figure I-3, "Organization and the Environment" as a guide, discuss with your group how each item listed in the figure is at work in your organization and related to some issue in your organization.

After 15 minutes, each group will be asked to share an example from one of their systems to illustrate the concepts of the iceberg and the environment.

EXERCISE 2

Using Figure I-5, "Relationship of Mission, Goals, Objectives, Target, Tasks and Measures" as a guide, each group should develop a mission statement for a general public and a specialized transportation provider. With each of the mission statements, develop a goal, objective, target, tasks, and measures for the general goal areas of service reliability and service convenience.

EXERCISE 3

To help understand the process of bringing change to an organization:

a. Share with members of your group how you applied or violated the "principles of Change" during an actual effort at bringing change to your organization.

b. Describe and present how you would implement a necessary fare or donation increase which is also coupled with a new data collection system (punched card). First identify what groups would be effected by the change. Next, describe how you would apply the "Principles of Change."

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RISK MANAGEMENT AND INSURANCE

OBJECTIVES

The training objectives of this session are:

1. To examine the relationship of risk management and insurance to personnel issues;

2. To examine the relationship of risk management and insurance to community relations; and

3. To discuss insurance alternatives.

ISSUES

The rural transit community has come to recognize over the past fifteen years the volatile nature of the insurance industry and the effects of that volatility on the monetary stability of the agency. The interest in containing the premium dollar in the rural transit agency's budget has focused new attention on principles of risk management and the potential for risk management to improve service. A comprehensive risk management program is recognized as a key strategy in reducing losses, improving system safety, improving passenger and community relations, and in some cases improving availability of coverage.

Risk management is defined as a program which "outlines positive daily Actions which, if taken, either will avoid a future accident or will control the adverse effects of a future accident if it does occur."[1] The risk management program is based on a set of agency-specific objectives developed which target greatest areas of risk for the agency. Critical risk management objectives for rural transit agencies include minimizing losses to the passenger (medical expenses or other injury-related expenses), minimizing financial losses to the agency, increasing agency service efficiency, or improving public relations.

APPROACHES TO RISK MANAGEMENT

There are three basic approaches to risk management for a rural transit agency: eliminate the risk, assume the risk, or transfer the risk. Avoiding all risks requires that the rural transit agency not provide any services. Of course, abandoning service is not a desirable option. However, there may be options for eliminating risk by selective elimination of special hazards or by initiating policies which in practice eliminate the risk.

For example, the risk incurred by hiring drivers who are very likely to have an accident due to speeding. Elimination of that risk requires conducting MVR checks on new drivers and periodically on current drivers, initiating

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1 Davis, Frank W., William W. Dotterweich, David A. Burchalter, and Tim Cleary. <u>Training Manual for Human Service Risk Managers. Final Reports</u>. Washington, DC: Technology Sharing Program, 1980. The materials in this section draw heavily on the risk management reference materials presented in this volume.

termination policies for moving violations incurred while on the job, and road checks of driver performance. This strategy utilizes a concept associated with risk avoidance, loss control. Loss control refers to partial avoidance through reduced frequency or severity of a loss. Another example of elimination is risks associated with a maintenance facility (on-the-job injuries to maintenance staff, liability for negligence) eliminated by contracting out the service to a private maintenance facility.

Risk assumption occurs when the risk cannot be avoided or controlled, and may be either active assumption or passive assumption. Any risk not transferred or eliminated is assumed; however, active assumption occurs only when the agency has evaluated the risk and determined that the best alternative is to assume the risk. Passive assumption of risk, on the other hand, are those risks that were not identified or ignored and for which no preparation has been made.

In addition to active or passive characteristics, assumption of the risk may be identified as complete or partial, and must be evaluated for its feasibility for assumption. An example of partial assumption is deductible levels set on automobile collision. The higher the deductible limits, the higher the assumption of risk. An agency must be able to clearly identify its capacity to assume the risk of a higher deductible since inability to repair a vehicle might mean discontinuance of a portion of the agency's service. However, the assumption of risk through increased deductibles also results in reduced insurance premiums to absorb potential loss.

Transfer of risk implies a transfer of risk to a third party. Commonly, that third party is an insurance company. Examples of transferred risks include insurance deductibles, contracts and agreements which hold the agency harmless, or risk pools, or legislative transfers. Legislative transfers refer to transferred risk such as no-fault legislation or governmental immunity statutes. Risk can be transferred to another operator by contracting with another service or private company that has insurance.

Measurement of each risk area is essential to determine the most appropriate approach for each risk identified. Calculating potential loss provides guidance in development of a risk management program. Typically, a rural transit agency will develop a plan which incorporates multiple strategies. Generally, containing loss through a vigorous driver screening and training program and a comprehensive vehicle maintenance program is one of the most effective strategies. In addition, evaluating the appropriate level of insurance deductibles and assuming smaller risks will enable the agency to contain the overall loss and achieve risk management objectives.

Steps to Develop a Risk Management Program

1. Establish Risk Management Objectives

Based on the specific characteristics of the rural transit agency, risk management objectives should be developed. These objectives should be observable, measurable, and achievable. Each objective should have action steps attached which describe how the risk management objective will be achieved. For example, rather than stating an objective as "reducing financial losses," the objective should be specific: reduce financial loss of the agency by 10 percent of current losses in the next fiscal year.

In addition to specific, measurable objectives, specific deadlines should be prescribed and should identify the specific staff member responsible for overseeing accomplishment of the objective. Like objectives in any other aspect of agency management, constant monitoring and evaluation of progress is essential if losses are to be minimized.

2. Identify Risk Areas

Three of the most exposure areas include non-passengers, passengers on the vehicle, and passengers entering or leaving the vehicle. Factors which affect these exposure areas include vehicle and equipment factors, human factors, and environmental factors. The matrix in Figure II-1 illustrates the major exposure areas for a transit agency.

Identifying risks requires a comprehensive record-keeping system to identify both exposure areas and factors affecting exposure areas. Common records utilized to identify risk areas include driver records, vehicle maintenance records, passenger records (when appropriate), and contracts. Informal procedures may also contribute to identification of risks; e.g., interviews with drivers and other staff may help to identify particular risks.

In addition, discussions with peer agencies at statewide or national meetings concerning risk exposure may help identify risks not previously considered. Identification is the first step in eliminating or transferring the risk.

3. Measure Risk

Risk is measured according to four criteria: frequency, severity, expected losses, and variability. Frequency refers to the predicted number of incidences within a given time period; e.g., frequency per one million miles of operation. Severity refers to the average loss per loss occurrence. Your risk management program evaluation should maintain records over several years, and compare the current year's severity and frequency against previous years. The Highway Loss Data Institute provides national severity and frequency figures.

Expected total losses are computed by multiplying the frequency of losses by the severity. Variability refers to the statistical variance in the frequency and severity.

4. Procure Insurance

- Insurance specifications
- Agency profile
- Driver profile
- Volunteer profile
- Vehicle profile
- Passenger profile
- Safety program profile
- Risk management supervision

5. Evaluate the Risk Management Program

Establishing procedures to continuously monitor and evaluate the risk management program is important to insure that the program is responsive to the changing environment. The objective of the evaluation program to determine

RISK FACTORS

	Equipment	Human	Environmental
Passengers on the vehicle			
Passengers getting on or off			
Non-passengers			

Figure II-1. Major Exposure Areas

current exposures, minimize loss in those areas, and revise risk management objectives as appropriate.

The evaluation program should include a record-keeping system which tracks insurance premiums, losses, changes in service, changes in contractual agreements, overall financial costs of agency operations, and expenditures of safety and educational programs. The evaluation program should also include procedures to periodically review the insurance market to determine whether coverage is appropriate, whether the cost is competitive, and whether the current levels of risk transfer are appropriate to the agency's current financial situation.

INSURANCE AND RISK MANAGEMENT DEFINITIONS

Risks - variations in outcomes that may occur over a specific period of time for a given situation.

Speculative risk - possibilities of both loss or gain.

Pure risk - chance of loss but no chance of gain.

Unmanageable risk - acts of nature or pure chance.

Manageable risk - outcomes and events which may result in financial loss and which can be avoided or minimized if appropriate management action is taken.

Peril - actual cause of the loss.

Chance of loss - the probability that perils will occur which may result in situations leading to loss.

Hazard - a condition or situation that creates a potential loss or increases the likelihood of a loss occurring from a particular peril. Include physical, moral, or morale hazards.

Uncertainty - personal doubt concerning one's ability to predict outcomes.

EXERCISE 1

The term "risk management" in transit is sometimes a little difficult to understand because there are so many factors to consider and some of the terminology can be confusing. One of the best ways to understand a difficult concept is to break it down to its simplest parts and relate it to something in our own realm of experience. This warm-up exercise is designed to do that.

Most of you probably had breakfast this morning. You probably didn't think about it, but there were lots of risks involved in that hazardous experience. Just as in transit, these risks were related to human, equipment, or environmental factors. Those at risk included those in our group who ate breakfast, breakfast eaters on their way to and from breakfast, and non-breakfast eaters in our group. An example of a risk to the breakfast eaters due to human factors might be that of overeating, or eating improperly prepared foods and getting sick. One example of hazards to non-breakfast eaters might be the cook preparing our breakfast, the waitress serving it, and late sleepers.

(1) Select one of the groups at risk, and identify some of the risks they are likely to face with breakfast.

(2) Identify whether each of the hazards are due to human (H), equipment (EQ), or environmental (EN) factors.

(3) Identify whether you consider the hazard to be manageable or unmanageable.

(4) Identify the risk(s) involved due to the hazard.

(5) Identify the management strategy to reduce the risk (assume, eliminate, or transfer).

RISK MANAGEMENT WARM-UP WORKSHEET

HAZARD: BREAKFAST

RISKS	FACTOR (Human, Equipment, Environmental)	MANAGEABLE?	MANAGEMENT STRATEGY (Assume,Eliminate Transfer)
Breakfast Eater			
Breakfast Eater To & From			
Non-breakfast Eater			
Cook			
Waitress			
Late Sleeper			

EXERCISE 2

Now that you have identified risks in breakfast, you're ready to tackle transit. The principles are the same.

Midland Transit Agency is a rural public transit authority operating eighteen vehicles, five of which are lift-equipped.

1. Divide into four groups, with each group selecting one risk area to discuss: (1) passengers on the vehicle; (2) passengers not on the vehicle; (3) drivers; and (4) other non-passengers.

2. Complete a risk management worksheet for your risk area.

3. Share your ideas with the rest of the groups.

RISK MANAGEMENT WORKSHEET

HAZARD: TRANSIT SERVICE

RISKS	FACTOR (Human, Equipment, Environmental)	MANAGEABLE?	MANAGEMENT STRATEGY (Assume,Eliminate Transfer)

CASE STUDY

The Midland Transit Service (MTS) is a three-county fixed route and demand-response rural transportation service operating eighteen 22-passenger body-on-chassis vehicles serving an area of 1,500 square miles. Total population in the three counties is 120,000 people; population is dropping at a rate of 1 percent per year due to out-migration of the younger age groups to find jobs. The proportion of persons over sixty years of age is currently at fifteen percent, with that ratio expected to rise in approximately twenty percent by the year 2000. Average yearly income is $11,000.

MTS has been in operation since 1980 as a rural transit authority and employs twelve full-time drivers, and ten part-time drivers. Two vehicles are used as back-up vehicles. MTS is currently the only transportation provider in the area with the exception of a taxi-cab service operating in Centerville, the largest town in the three county area with a population of 30,000. The part-time drivers also serve as back-up drivers. Average driver time with the agency is five years, with approximately one-third of the drivers hired at the initiation of service in 1980. Seven of the drivers are between the age of 55 and 68. Three drivers are between the age of 50 and 54, and the remainder are under 50. Average driver wage is $4.75 per hour. A full-time driver works 35 hours per week; part-time drivers work an average of 15 hours per week.

Employee loyalty to provision of service to their riders is very high; passengers remember driver birthdays and consider the drivers their personal friends. Staff morale has been a little low lately due to extremely limited funds over the past two years. No raises have been available for two years. In addition, while drivers once were allowed to drive their vehicles home at the end of the day, the Vintage Insurance Company (MTS' current insurance carrier) has asked the director to discontinue this practice to limit exposure to risk during non-service times.

MTS switched to Vintage as an insurance carrier in 1986 when their previous carrier, Mecca Insurance, provided a thirty-day notice of discontinuance of service. While MTS accidents had been limited to two minor non-injury accidents in the previous year which cost a total of $1,500 ($500 total cost to the agency to cover deductibles), the carrier planned to discontinue transit coverage. An emergency board meeting was called to determine whether service would be discontinued. However, Jonathan Harris, the board president, and Irene Locken, executive director of MTS, were able to secure a policy with Vintage before service was discontinued. The policy was written by a local agent with long-time ties to the area, and a personal friend of the board president. Rates rose from an average of $650 per vehicle to $1,000 per vehicle, raising vehicle insurance from $11,700 to $18,000, an unanticipated 54 percent increase. The deductible remained at $250 per incident. The insurance increase wiped out funds intended for employee raises in 1987 and 1988.

Budget planning has begun for FY 1989. Irene has been reviewing the FY88 summary performance report to develop budget estimates. Initial estimates of revenue, due to reductions in Section 18, county tax valuations, and elimination of revenue sharing show an overall budget reduction of 20 percent or a loss of approximately $40,000. Options available to MTS being examined by the board include elimination of two routes serving one of the counties, and elimination of long-distance medical transportation service out of the service area, which requires laying-off two full-time drivers and a part-time driver.

At the same time, Irene distributed a request for quote to several insurance companies. One quote received from Acme Insurance reduces average vehicle insurance coverage cost to $450 per vehicle; however, it places a number of requirements on MTS for risk management. Changes in personnel policies require that no driver over the age of 55 be allowed to operate MTS vehicles, and that a drug testing program be initiated which tests all drivers when hired and randomly tested thereafter. Deductibles will be set at $1,000. In addition, an enhanced maintenance program which includes oil analysis must be initiated which is estimated to cost an additional $3,000 per year. Irene also realizes that purchasing the insurance will mean that the insurance business goes to an out-of-state agent, at the expense of an in-town agent, a close friend of Jonathan's.

MTS Performance Summary Report FY88

Total expenses	$220,000
Fares	$ 37,000
Total miles	400,000
Total passengers	147,000

MTS Safety Program

Driver Training

1. All new drivers must have basic first aid training.

2. All drivers will be provided with an orientation to the vehicle and its operation through a two-day orientation period in which the new driver travels on the bus with an experienced driver.

3. No driver may have more than three moving violations in the past two years.

4. Any driver involved in a preventable accident will be dismissed immediately.

Vehicle Maintenance

1. All vehicles will go through a preventive maintenance inspection once every thirty days.

2. All repairs requests will receive action immediately.

3. A log of maintenance and repair on each vehicle will be maintained in its folder.

4. All vehicles will be removed from service immediately should they present any safety hazards to the passenger.

Emergency Planning

1. All vehicles are equipped with two-way radios to provide access to immediate assistance.

2. All vehicles are equipped with a fire extinguisher and first aid kit, and all drivers will be oriented to this equipment.

Safety Management

1. Irene Locken has responsibility for accident investigation and review and will maintain a file of all accidents in which agency employees are involved.

Insurance and Risk Management
Group Exercise

1. What options are available to MTS to meet the FY 1989 budget? What are the advantages and disadvantages of each and what are the estimated costs (or savings) of each?

2. What are the implications of discontinuing routes compared with the implications in cuts in other areas such as risk management?

3. What are the implications of accepting the bid from the new insurance company? (Discuss cost implications, personnel implications, community relations implications.)

4. Are there other options for insurance coverage that could be considered? If so, what are they, and how should Irene proceed to investigate them?

5. What would you advise Irene to do? Prepare a justification for the recommendation for Irene to take to the Board. Be sure to include short-range FY89 and long-range 90-95) recommendations).

6. What are the strengths and weaknesses of the safety program? Are there changes you would recommend to improve agency operations? To improve insurability?

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SUBSTANCE ABUSE

OBJECTIVES

The training objectives of this session are:

1. To provide an overall understanding of the nature of substance abuse;
2. To explore ways of identifying substance abuse problems in the workplace;
3. To provide guidelines and ideas for assisting substance abusers; and
4. To review the impact of substance abuse on transit operations.

ISSUES

According to Dr. Joseph Pursch, medical director of Comp Care Corp., the nation's largest provider of substance abuse programs, substance abuse in the workplace is the number one public health problem facing society today.(1) This problem relates not only to substances consumed while working but also to substance abuse which occurs off the job.

At least four million workers in the United States are abusing drugs to the point that they have been referred for treatment. The loss in productivity of these workers is estimated to cost businesses an average of $4,250 per worker, per year.(2) Unfortunately, a 1982 report issued by the United States Public Health Service stated that 85% of people with substance abuse problems aren't getting any help.

In order to understand the significance of substance abuse it is important to first understand that substance abuse is a disease -- a chronic, progressive, incurable disease that is characterized by loss of control over alcohol and other addictive drugs. Once an individual becomes addicted to either alcohol or other drugs. Once an individual becomes addicted to either alcohol or other drugs, that person is always dependent. The substance abuser can become emotionally, psychologically, spiritually and physically addicted to either alcohol or drugs.(3)

The purpose of this section is to make the rural transit manager more aware of the substance abuse problem, discuss the impacts of substance abuse on individual employees as well as the organization and identify ways to assist the rural transit manager in managing this critical problem.

UNDERSTANDING THE PROBLEM

Substance abuse exists when an individual experiences frequent problems in any area of his/her life as a direct result of consuming alcohol or taking legal or illegal drugs. Each aspect of substance abuse is further discussed as follows:

Alcohol

While almost 90% of the adult population in this country consumes alcohol, most have no problem with its use.(4) The reasons for an individual becoming an alcoholic are varied, but three major causal arenas have surfaced over the years -- biomedical conditions present at birth or developing later in an individual's life, psychological or emotional conditions and/or an individual's social environment. Traditionally, alcohol abuse has been more prevalent in older males, but the disease is becoming more and more age and sex neutral.

Understanding that alcohol abuse is a disease is difficult for most people because the alcoholic displays none of the traditional symptoms of a sick person. Quite to the contrary, the alcohol abuser usually appears to function quite normally and may be demanding, resentful, uncooperative and extremely difficult to help.

Drug Abuse

Among the more common drugs which are associated with drug abuse are marijuana, cocaine, barbiturates and amphetamines. What is sometimes overlooked, however, is the increase in abuse of prescribed drugs.

Use of drugs may be characterized as experimental, regular or abuse/dependent and applies to both legal and illegal drugs. Although these classifications will vary with the nature of the drug and the condition of the user, they are helpful in understanding that a significant percentage of this country's population uses chemicals without causing problems either in their own lives or the lives of others. The issue of substance abuse in the workplace focuses on those instances where problems exist with either the drug abuser or persons with whom he/she affects.

IMPACTS OF SUBSTANCE ABUSE

Substance abuse has long-lasting impacts not only on the diseased individual's personal life but on the individual's professional life and the organization or business for whom that individual works. The following provides a discussion of the impacts of substance abuse on each of these areas.

Personal Development

The chemically dependent person is almost always the last to realize or, more importantly, admit that he/she has a disease. However, spouses, friends and family members who are close to the diseased individual often are slow to identify the problem in the hope that the "problem" will go away. It is only when substance abuse is recognized as a disease that progress can be made in assisting the individual.

Because substance abuse is a disease, there are several precepts that govern it.(5) First, the disease can be described. Second, the course of the disease is predictable and progressive. Third, the disease is primary and is not just a symptom of some other underlying disease. Fourth, the disease is permanent. Fifth, the disease is terminal and, if left untreated, will result in premature death. Substance abuse is no different than any other disease in terms of how it affects personal development. The life of a substance abuser is impacted by:

- A growing preoccupation with the substance;
- An increased rigidity in lifestyle;
- A growing tolerance to the substance; and
- An increasing loss of control.

The substance abuser is much more prone to marital, financial, legal and social problems. Without assistance, the substance abuser will continue an existence of self-destruction.

<u>Professional Development</u>

Because substance abuse affects both physical and social behavior, the substance abuser tends to miss more work due to sickness and/or hospitalization and finds relationships with co-workers more and more difficult to maintain. Professional development is therefore stunted or halted. A substance abuser may be able to disguise the impact of his/her disease at the workplace for while, but the disease always has negative influences on an individual's professional performance. These negative influences result in increased absenteeism, lost promotions due to poor job performance and, eventually, the loss of a job.

<u>Organizational Development</u>

From an employer's point of view, any employee who is a substance abuser has the potential for causing great harm to the organization. Not only in terms of diminished job performance and, therefore, reduced productivity, but also in terms of internal and external perceptions of the organization.

For organizations such as rural public transit systems which deal so significantly with the general population, the issue of substance abuse must be viewed within the context of how does (will) the existence of the disease impact the day to day operation of the system and what perceptions does society have of the organization. The implications here range from a bus driver who is addicted to cocaine being arrested off the job to a secretary stealing money from the organization to support her alcohol addiction. Non-substance abusers whose workloads are increased as a result of diminished productivity on the part of the diseased individual is always negatively effected. Any employee whose substance abuse problem goes undiagnosed has the potential of causing significant problems to the transit system.

IDENTIFICATION OF SUBSTANCE ABUSE PROBLEMS

The initial step in addressing the substance abuser is identifying the problem. Because one of the major characteristics of substance abuse is self-denial, it is critical that managers of rural transit systems be knowledgeable of the substance abuse warning signs in order to assist not only the diseased individual but the transit system. Rural transit managers are not expected to be experts on the issue of substance abuse nor are they responsible for determining which employees may have substance abuse problems and which ones do not. However, rural transit managers should become skilled in observing and correcting job performance problems. The rural transit manager has two critical responsibilities if an employee is diagnosed as a substance abuser. First, is to assist the individual in obtaining treatment. Second, is to maintain professional confidentiality.

When any employee shows signs of decreased professional performance or significant, continuing changes in work patterns, it indicates that some significant event has occurred, or is occurring in the individual's life. To assist the rural transit manager in identifying the possibilities of substance abuse, the following list of symptoms is provided.

<u>Behavioral Changes</u>

- Extreme mood swings, especially from an easygoing individual to irritable and defiant behavior
- Unreasonable anger, particularly at inappropriate times or not in proportion to the situation
- Incidents of lying, particularly regarding things said or not said
- Change of friends, particularly a loss or avoidance of old friends
- Avoiding contact with family members or co-workers
- Change in eating habits, including loss of appetite or loss of weight
- On the job performance changes, including tardiness and absenteeism
- Changes in off job hobbies or activities often evidenced by an overall lack of interest
- Questionable money management

<u>Physical Changes</u>

- Increase in illness
- Increasing visits to the doctor or hospitalization
- Changes in style of dress, sometimes appearing disheveled
- Smelling of alcohol or marijuana
- Change in appearance, including glassy-eyed look

While this list is not all-inclusive, it does provide a basic guideline for the possible identification of substance abuse in the workplace. The rural transit manager should not view a single incidence as evidence of substance abuse, but should be observant for a series of changes which occur over time.

EMPLOYEE ASSISTANCE PROGRAM

If substance abuse is determined to be a problem in the workplace, rural transit managers should help the individual as well as their transit system by providing access to substance abuse treatment programs. While most rural transit systems lack the financial resources to establish an in-house employee assistance program, the rural transit manager should be knowledgeable of the resources which exist through outside agencies or organization. Many communities have drug and/or alcohol assistance agencies which are available to assist the transit manager or the diseased individual. In addition, Alcoholics Anonymous remains the main resource for persons suffering from alcoholism.

Regardless of the methodology utilized, the rural transit manager should be aware of the following guidelines regarding assistance for a substance abuser.

- Make it clear that the organization is concerned with job performance and that unless job performance improves, the job is in jeopardy.
- Do not try to diagnose the problem yourself.
- Do not discuss substance abuse unless it affects on the job performance.
- Inform the individual of assistance programs available, either within or outside the organization.
- Remind the employee that only he/she can decide whether to accept assistance.
- Inform the individual that all aspects of the issue are confidential.
- Do not moralize.
- Do not be misled by sympathy-evoking arguments by the individual.
- Do not cover up the problem for a friend.
- Remember that substance abuse is a progressive disease and that it only gets worse.
- Remember, the purpose of an employee assistance program for substance abusers is to retain employees by helping them arrest the further advance of their disease, thus making them employable.

SUBSTANCE ABUSE AND TRANSIT OPERATIONS

The issue of substance abuse has many implications for the manager of a rural transit system. Not only are there the issues regarding personnel development as have been previously discussed, but a number of other operational and administrative issues are either directly or indirectly impacted by substance abuse. The rural transit manager needs to understand the interrelationships between the various elements of rural transit in order to accomplish improvements in his/her system.

System Safety

Rural transit vehicle operators inflicted with the disease of substance abuse have the potential for causing serious safety problems. Whether the individual is addicted to amphetamines or alcohol, the ability to safely operate a public transit vehicle is seriously impaired. The consumption of either alcohol or addictive drugs (either legal or illegal) impacts a driver's visual ability, reaction time, hand-eye coordination and judgment. Recent statistics reveal that approximately 50% of all traffic related deaths involve alcohol.(6) If legal and illicit drugs were considered, this percentage would be even greater. Therefore, it is imperative that the rural transit manager take every precaution to ensure that persons operating public transit vehicles are not under the influence of alcohol or other addictive drugs.

Risk Management

An integral element of risk management in the public transit industry is driver capability. A primary point in risk reduction is the employment of vehicle operators who have no substance abuse problems. Since substance abusers are more inclined to be involved in vehicular accidents, the employment of such individuals will increase the transit system's exposure and will possibly negate other components of a systemwide risk management program.

Most rural transit systems employ vehicle operators who are older than their urban counterparts and, because of their age, are more inclined to be consuming legally prescribed drugs. The rural transit manager should be aware of all prescription drugs being consumed by vehicle operators. Requiring vehicle operators to report all prescription drugs which he/she is taking is a policy which may save lives and is a corner stone of risk management.

Operational Costs

Substance abusers not only increase operational costs due to higher than normal absenteeism or tardiness, but also increase expenses through decreased productivity. This aspect of substance abuse is applicable to management personnel as well as vehicle operators. A 1982 study conducted by the University of Michigan for General Motors Corporation revealed an annual savings of $2 for every $1 expended on substance abuse rehabilitation services due to decreases in tardiness, sickness and accident-benefits utilization. Each substance-abusing employee costs a business an estimated $4,250 annually.(7) While the incidence of substance abuse within any one rural transit system may not be great, it is obvious that even one abuser represents a significant financial liability to the system.

EXERCISES

EXERCISE 1

The SJR Transit System has utilized the services of the same preventive maintenance specialist for the past 10 years. This individual is responsible for scheduling and overseeing all maintenance activities for the system's 35 vans and buses. Two years ago the transit manager received an anonymous telephone call indicating that the preventive maintenance specialist was drinking on the job. The preventive maintenance specialist is 70 years old, has a PhD in mechanical engineering, recently experienced the death of his wife and has no immediate family within 500 miles. Because SJR Transit has such a small professional staff, the preventive maintenance specialist occasionally provides assistance within the office.

Based upon this information and any inferences you desire to make, describe in detail:

- o The problem, if there is one;
- o Any implications the situation has upon SJR Transit System;
- o Any corrective actions; and
- o how the transit manager should handle the situation.

EXERCISE 2

The SJR Transit System has experienced 5 accidents during the past 6 months involving the same driver. While each of the accidents were determined to be the other driver's fault, the transit manager feels that each of the accidents could have been avoided had the bus driver been more alert and attentive. After attending a special course on substance abuse in the transit industry, the manager suspicions that alcohol or drugs may be a problem with the accident-prone driver.

How does the transit manager satisfy her suspicions? What types of information should she be looking for? What questions should not be asked? What information, if any, should be included in this case study to more clearly state the problem?

EXERCISE 3
ROLE PLAYING EXERCISE

Divide your group into three smaller groups, with one small group assuming the role of management, another small group as employees who are diagnosed as substance abusers and the third group as unbiased observers. The management group should discuss the problem with the employees and pursue solutions to the problem. The observers should critique the discussion.

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SAFETY AND EMERGENCY PROCEDURES

OBJECTIVES

The training objectives of this session are:

1. To explore strategies for improving passenger response to emergencies by involving passengers in safety procedures;

2. To examine issues of vehicle procurement related to passenger safety and cost efficiency; and

3. To explore issues of passenger right-to-ride and overall system safety.

ISSUES

Management

The catastrophic effect of frequent accidents, even minor ones, is a clear barrier to provision of quality transportation service. Passenger safety and well-being is threatened, costs of service escalate dramatically, and community perception is negative and makes the bus service a poor alternative even to missed trips. Insurance is difficult or impossible to get, and the transit service is an excellent target for lawsuits. Local funding, usually difficult to secure in the best situations, is impossible when the service is perceived as unsafe or less than professional.

Equipment utilized in rural transit programs has been the focus of recent attention due to unique passenger loads and the equipment required to carry them. Typically, smaller vehicles are utilized in rural transit programs due to lower density service areas and the longer distances traveled. These smaller vehicles, such as vans or body-on-chassis vehicles, were not originally designed as transit equipment, but have been modified to meet passenger requirements. Lack of standardization of equipment, sometimes inadequate design, lack of national safety standards for rural transit vehicles, and inadequate specification development have all contributed to production of equipment with lower than adequate safety performance.

Of particular concern has been the design of wheelchair lift and securement systems which will protect the passenger and the wheelchair. The problem of inadequate equipment to provide accessibility to the vehicle has been exacerbated most recently by the production of more and more varieties of wheelchairs: lightweight, high performance chairs; extremely heavy electric wheelchairs; three-wheeled chairs; and even gasoline-powered chairs. The lack of any dialog among the lift manufacturers, the securement device manufacturers, the wheelchair manufacturers, the vehicle manufacturers, and the rural transit providers has resulted in threats to the safety of passengers, some denial of rides, and less than satisfied passengers, drivers and managers.

Another key issue in system safety has been in training of staff and emergency medical personnel. Even with best intentions, driver training is usually inadequate at the beginning of employment, and inadequately maintained on a periodic basis.

Drivers are extremely autonomous service providers while they are on the road. Involving the drivers in the safety planning process completely increases the chances that they will be able to follow through with the plan when they are on the road and when emergency situations arise. Driver involvement includes making recommendations of safety priorities, asking the drivers to help develop the procedures, securing their suggestions for training. All programs should have minimum standards for driver training; however, driver input will help identify additional deficiencies to insure that accidents are at an absolute minimum and that passengers "feel" safe when using the service.

When emergency procedures are developed within agencies, involvement of local emergency medical personnel is often overlooked as a strategy to improve emergency response. Typically, emergency personnel such as ambulance services, fire departments, and police personnel are not familiar with the equipment being used by rural transit agencies, typical passengers being transported, or potential emergency situations which may arise. While there are emergency procedures which generalize to transit services, familiarity with the transit agencies in their particular areas would significantly improve first response, both in time to respond and appropriate equipment.

Finally, the passenger's role in safety in the rural transit system has been addressed inadequately. The airline industry has recognized the importance of orienting passengers to the vehicle and its safety features. The rural transit industry assumes its passengers are familiar with the vans and small buses it uses. However, the modifications made on these vehicles may make the vehicle unfamiliar. In addition, passengers using the transit service assume that their safety is being taken care of and they do no play a role in assuring their safety and the safety of the other passengers. It is perhaps time to re-evaluate the roles and responsibilities of the passenger, and discover how the passenger might contribute to increased system safety.

Management initiation and maintenance of a comprehensive safety and emergency program is an essential component of a rural transit program. The manager's responsibility in the development of the safety and emergency program requires identification and prioritization of the target areas for action, development of procedures to achieve implementation of the program, monitoring of results, and adjustment of the program as changes are made.

APPROACHES

Development of a Safety Plan

Development of a safety plan, like any other planning process, is structured around the planning cycle. First, the agency must develop a policy on system safety and goals consistent with that policy. It is at this stage that driver, dispatchers, managers, passengers, board members, and emergency medical personnel should be involved in discussing current strengths of the agency safety program (even an informal one), weaknesses, specific problems, and key individuals to be involved. Included in this analysis is identification and description of specific risks for the agency. Discussion should not be limited only to the vehicle, but also to maintenance facilities, entering and exiting homes, office facilities, etc.

The next step is to determine how to handle the risk; specifically, decide to avoid, reduce, control, assume, or transfer specific risks, hazards, or perils. Develop measurable objectives for each major area to be achieved within the immediate future and develop a plan to monitor the progress towards achievement. Objectives should include components for driver training, public awareness, and passenger orientation.

The third step is to develop a safety program evaluation procedure complete with procedures for collecting and analyzing data. Complete record-keeping for the safety program provides information for evaluating success of the safety program, but also is essential for insurance procurement and public relations. Communicating the success to the public contributes to their feelings of well-being and supports ridership for the agency.

The worksheet on the following page provides a table for developing an agency safety plan.

Safety Planning Exercise 1: The Safety Inventory

We take much of our safety equipment on our vehicle for granted. This exercise is designed to assist you in identifying equipment hazards on your vehicle first by identifying safety strengths of the vehicle, and then identifying needed improvements. This exercise could be done periodically with drivers to improve their own practices and to assist managers with developing vehicle specifications.

Step 1: Divide the group into teams of 4-6 people. It is helpful to have individuals with a variety of experiences; for example, mechanical knowledge, passenger assistance experience, driving experience, etc.

Step 2: The first part of this exercise requires each team to go over a vehicle or vehicles, and identify as many safety features of the vehicle(s) as possible in 15 minutes. As an alternative, assign each group a specific risk area; i.e., passengers on the vehicle, passengers entering or exiting vehicle, driver area maintenance. This exercise gives the groups an opportunity to become familiar with the vehicle, and reinforce the presence and importance of safety features.

Step 3: Have each group share their list of vehicle safety features. Ask groups to add other features once all groups have given their lists.

Step 4: Now each group should survey the vehicle and identify recommendations for safety improvements. This segment of the exercise provides the basis for some of the action steps on the safety plan. Each group should be allowed 15 minutes to complete the inventory of recommendations. When it is completed, each group will share their findings. Add to the list anything that might have been missed.

Safety Plan Worksheet

Target Risk	Management Strategy	Tasks to Implement	Responsibility	Training Needs	Monitoring Plan

Note that the example given in the worksheet on the following page is that backing collisions be avoided and controlled by implementing general tasks. Some of these tasks may have been suggested when you completed the safety inventory; e.g., installing plastic convex lens on the rear windows, or installing back-up warning buzzers. These two suggestions address the equipment contribution towards risk. Have the other tasks address "human" and "environmental" hazards.

Safety Planning Exercise 2:

Using a target risk of wheelchair passenger injuries in a collision, develop a safety plan which includes management strategies, tasks to implement, responsibility, training needs, and monitoring plan. Be sure to consider equipment, human and environmental factors.

Write your recommendations in the flip chart, and be prepared to share them with the rest of the group.

Development of Vehicle Maintenance Program

The maintenance program is a key element in the success of the safety plan. Well-maintained vehicles reduce risk from equipment malfunction such as failed brakes, defective steering, or blown tires, and contribute to the overall image of safety.

The maintenance program includes a system for daily preventive maintenance checks which will detect leaks or low fluids which might lead to malfunction, and tire condition to prevent blow-outs. The daily checks also include procedures for checking brake lights, turn signals, and back-up lights to insure that vehicles surrounding the transit vehicles have adequate advance warning of action. In addition, the daily check should include a check of the placement and adequacy of emergency equipment such as the fire extinguisher, first aid kit, and horn so that the response may be immediate and adequate if an emergency does arise. Monthly preventive maintenance procedures include checks of the suspension system and steering which might contribute to an accident.

Development of Emergency Procedures

There are several steps to follow in development of emergency procedures for the rural transit program. The first step is to equip the vehicle for common emergency situations. The following is a list of recommended minimum safety equipment for any vehicle:

- Fire extinguisher
- Commercial first aid kit with plenty of large compresses
- Two-way radio communications
- Spare tire, jack and lug wrench
- Flashlight
- Jumper cables
- Reflective triangles
- Flares
- Blanket

Safety Plan Worksheet

Target Risk	Management Strategy	Tasks to Implement	Responsibility	Training Needs	Monitoring Plan
Backing Collisions	Avoidance Control	1. Initiate policy to avoid backing whenever possible and orient drivers to policy.	Director	Policy Orientation	Investigate all back-up accidents.
		2. Install back-up warning buzzers on all vehicles.			
		3. Install plastic convex lens on rear windows.	Maintenance Supervisor		Inspect mirrors monthly.
		4. Provide National Safety Council "Circle of Safety" training to all drivers.	RTAP Coordinator	Obtain "Circle of Safety" slide tape.	Annual update.
		5. Apply "Circle of Safety" stickers to all vehicles.	Maintenance Supervisor		Inspect stickers monthly.
		6. Install rear window wipers to clean window during rain and snow storms.	Maintenance Supervisor	Driver orientation to include check of wiper in pre-trip inspections.	Check operation daily in pre-trip inspection.

In rural areas during cold winter climates, add the following equipment:

- o Additional blanket
- o Chains
- o Small bag of sand
- o Small shovel
- o Candles and matches
- o Two empty coffee cans

Next, develop step-by-step procedures for the drivers, dispatchers, and managers in case of specific emergencies; e.g., non-injury accident, injury accident, engine fire, water hazards, winter storms, etc. These procedures should be discussed and rehearsed periodically. Staging a simulation accident or other emergency incident with drivers and emergency service personnel is an excellent strategy for involving all personnel in emergency planning.

Finally, establish procedures to evaluate the safety program periodically and use the feedback to establish or update objectives for the future.

<u>Minimum Preventive Safety Measures</u>

1. Drivers must wear seat belts and insist that all passengers wear seat belts throughout the trip.

2. Drivers should not smoke or eat while driving the bus. Remember, all attention should be on the driving task and not distracted by food or ashes falling in their laps.

3. Vehicles should be maintained in top condition at all times. Regular preventive maintenance checks should be completed on the vehicle once a month or three to five thousand miles. Drivers should inspect vehicles daily and report any irregular vehicle performance at once.

4. Make sure the vehicle emergency exits are well-marked and that passengers are familiar with the emergency exits.

5. Secure all loose items on the vehicle. Even a loose spray can be a projectile in an accident. Pay particular attention to larger items such as spare wheelchairs, walkers, bags of groceries, etc. Elastic straps or cargo netting may help with smaller items.

6. Schedule joint training sessions with the ambulance service and fire department. Let them become familiar with your equipment and provide information about the types of passengers you will be carrying so that they may respond appropriately in an accident.

7. Have your telephone number printed on the outside of the vehicle so that the office can be called more readily in case of an accident.

8. Establish a plan for reporting and responding to emergencies on the vehicle. Emergency procedures should take into consideration collision, equipment failures, inclement weather (snow, tornados, etc.), fire on the vehicle, passengers who become ill, or drivers who become ill. Include a system for documenting incidents and responses to those incidents. Review

problems or actions on a regular basis with all staff and discuss what was done right and what could have been done better.

EXERCISE 3

When John Hughes was hired by the Horatio Rural Transit Authority as director, his number one priority was safety improvement. Ridership was low due to poor community image, run-down and unreliable buses, a number of minor accidents, and a fatality accident. The accident was determined to be the fault of the transit authority due to a poorly-maintained vehicle in which the brakes failed and caused a bus rollover with the vehicle landing on its left side. The wheelchair secured at the center rear of the vehicle blocked the exit of vehicle, causing serious problems in evacuation. A collapse of the fiberglass body bus resulted in the death of one passenger and a second seriously-injured passenger.

In the six months that John has been at Horatio, significant improvements have been made in system safety. Two vehicles have been retired, and John is working on replacement with $50,000 that he has been able to secure. The fiberglass-body vehicles purchased in the past have cost approximately $25,000 each which would allow John to purchase two vehicles to replace the two retired vehicles. However, John is also looking at steel-cage construction vehicles which, if purchased, would allow John to purchase only one vehicle at an individual cost of $35,000.

All vehicles have had a thorough inspection with both major and minor repairs completed. An agency safety plan has been developed and a comprehensive safety training program including incentives initiated for drivers. HTS has initiated a policy that all riders must wear seat belts; however, compliance is not good as many passengers resist wearing the belts or do not leave them on throughout the entire trip. John is also meeting regularly with the Horatio Independent Living Center because of a policy to not carry three-wheel wheelchairs since current securement devices on the vehicles do not adequately secure the wheelchair on the bus. A disabled passenger who uses such a chair is threatening a lawsuit because he is being denied rides on the transit system.

In spite of system safety improvement, public perception of the transit system lags behind the improved performance. Press coverage of system accidents and poor performance prior to John's tenure have created significant public relations problems for the transit system. Further, attitudes of riders toward the transit system, while aware of some of the system improvements, still is not as positive as John would like. He would like to consider the possibility of involving passengers in safety procedures to improve actual and perceived readiness, much as the airlines have done in pre-flight orientations.

Safety and Emergency Procedures
Group Exercises

1. Given the circumstances of the fatality accident, what do you consider the key specifications for the replacement vehicle and future replacements? What considerations should be made in floor plan for greatest safety? What would locations of safety exits? Should John specify steel-cage construction on the replacement vehicles or continue with fiberglass construction?

2. How should John handle the complaint against the transit system concerning transportation of disabled passengers using three-wheeled wheelchairs? How can he reconcile system safety with accessibility of services?

3. Develop a program for passenger involvement in system safety. Describe each of the major components, how it would improve safety, and how it would improve passenger confidence in the system. What measures should be taken to improve passenger compliance with safety procedures?

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4. Accident Investigation, A New Approach, National Safety Council, 1983.

PRODUCTIVITY IMPROVEMENTS

OBJECTIVE

Identify productivity improvements that work, and share them.

ABSENTEEISM

1. ____________________

2. ____________________

TURNOVER

1. ____________________

2. ____________________

OFFICE EFFICIENCY

1. ____________________

2. ____________________

MAINTENANCE EFFICIENCY

1. ____________________

2. ____________________

INCREASED RIDERSHIP

1. ____________________

2. ____________________

LOWER COST PER MILE OF SERVICE

1. ____________________

2. ____________________

COORDINATION WITH OTHER AGENCIES

1. ____________________

2. ____________________

REDUCTION IN PAPERWORK

1.__________

2.__________

VEHICLE DURABILITY

1.__________

2.__________

BILLING AND ACCOUNTING IMPROVEMENTS

1.__________

2.__________

CONTRACTING AND PRIVATIZATION

1.__________

2.__________

IMPROVED LOCAL FUNDING SUPPORT

1.__________

2.__________

LOWER COST PER PASSENGER

1.__________

2.__________

INSURANCE COSTS

1.__________

2.__________

REDUCED SERVICE COMPLAINTS

1.__________

2.__________

JOB SATISFACTION

1.__________

2.__________

ADVERTISING EFFICIENCY

1.____________________

2.____________________

RELATIONSHIP WITH GOVERNING BODY

1.____________________

2.____________________

QUALITY OF MEETINGS

1.____________________

2.____________________

NUMBER OR LENGTH OF MEETING

1.____________________

2.____________________

SCREENING, HIRING, TRAINING EMPLOYEES

1.____________________

2.____________________

CONTRACTING AND PRIVATIZATION

OBJECTIVES

The training objectives of this section are:

1. To discuss the rationale for private sector utilization;

2. To identify means by which private sector utilization can be increased;

3. To review the issues involved in planning for private sector utilization; and

4. Review the process for contracting with the private sector.

ISSUES

The concept of privatization is not new(1) but the recent emphasis on privatization in the provision of public transportation services from both the federal and state government is. Many governmental entities have contracted with private firms for the provision of public services over the years including refuse collection, snow removal and community development services. However, the concept of privatization in the public transit industry, particularly in rural and small urban areas, is relatively new.

The Urban Mass Transportation Administration has made privatization a key issue, as evidenced by the following excerpts from recent UMTA policy directives:(2)

> "Existing transit services should be periodically reviewed to determine if they can be provided more efficiently by the private sector..."
>
> When new service needs are developed, or services are significantly restructured, consideration should be given to whether private carriers could provide such service...."

Public transportation agencies must allow the private sector a fair opportunity to compete for the provision of services. The transit manager must be prepared to accept this mandate and to facilitate its realization.

In addition to the federal and state mandates towards privatization, there are service-specific reasons for the incorporation or private transportation providers in the rural public transit area.

The issues presented in this section include the reasons for private sector utilization, ways in which the private sector may be incorporated with the transit system, planning for private sector utilization and contracting with the private sector.

REASONS FOR PRIVATE SECTOR UTILIZATION

Philosophical Rational

Just as perception barriers to coordination may be difficult to quantify, so are philosophical reasons for utilizing private transit providers. The basic notion that public transit is performed for the common good implies that service should be provided for any and all persons that either need or desire such services. Therefore, the provision of such service should be the responsibility of the public sector. While the responsibility for service provision rests with the public sector, the private sector should be afforded every opportunity to assist in the fulfillment of that basic responsibility. The public sector should not be in the position of competing with private enterprise and must recognize the fact that private businesses help maintain the tax base which allows the public sector to function. The rural transit manager must put aside his/her personal philosophical convictions regarding privatization and accept the precept that the private sector is entitled to participate in the process of providing public transportation services in rural areas.

Financial Rational

The main impediment to increased utilization of private transportation providers in rural areas is the belief that the cost of service will automatically increase. While it is true that the private sector has the additional cost item called profit, there are numerous instances where service can be provided by the private sector in a more cost-effective manner than can be provided by the public transit entity itself. The rural transit manager must remember, however, that service quality should not be sacrificed for reduced unit costs. The rural transit manager must also remember to fully identify the costs of his/her service in order to fairly compare service proposals from the private sector.

Political Rational

Rural public transit systems are subjected to as much political influence as are urban systems. Whether the political influence is generated at the state or local level is irrelevant. The fact of the matter is that the utilization of private transit providers may be politically astute for a rural transit manager. In addition, the incorporation of private transit providers in the provision of public transit services may very well strengthen the system's ability to generate financial support from either state or local sources.

FORMS OF PRIVATE SECTOR UTILIZATION

The three basic areas in which service privatization can and does occur are operations, maintenance and administration. These three areas also present opportunities for the utilization of private transit services.

Operational Opportunities

There are two major opportunities for the private sector to access public transit operations in rural areas. The first is rural commuter service, which is becoming more prevalent as employment centers in rural America become more concentrated. Because commuter services are targeted to a relatively larger number of riders, many rural transit systems lack the vehicle capacity to provide such services. Also, the nature of commuter service is one-directional which provides opportunities for the private sector to possibly supplement existing services. Commuter services also provide the rural public transit manager with opportunities for innovative funding sources -- specifically, the business/industry being served by the commuter service.

The second major opportunity for utilizing the private sector in rural public transit systems focuses on taxi companies. Many rural transit systems contract with private companies for the provision of service to specific user groups within a well-defined geographic area. Not only does this concept assist the specified user group, it often provides the private taxi company with the consistent revenue source necessary to remain operational and, therefore, provide service to the remainder of the community.

Maintenance Opportunities

Most rural transit systems lack the financial resources to afford a vehicle maintenance garage and, therefore, must utilize private facilities for vehicle maintenance. For rural transit systems which serve a large geographic area, there may be numerous private facilities which provide vehicle maintenance. The rural transit manager needs to work closely with these private facilities so as to ensure timely repair work. The rural transit manager should also approach these private facilities from the perspective of a long-term, consistent customer which can result in reduced rates for maintenance activities. As more and more rural transit systems focus on vehicle rehabilitation rather than vehicle replacement, bus/van rehabilitation services become another opportunity for private sector participation.

Administrative Opportunities

Many transit systems, mostly in urban areas, utilize private management firms for the provision of overall administrative functions. Although this trend may not be as prevalent in rural areas, the rural transit manager should be aware of specific administrative functions which may be performed by the private sector. Examples include system planning, accounting services and marketing.

PLANNING FOR PRIVATE SECTOR UTILIZATION

Rural transit managers need to consider privatization during the planning process. As indicated earlier, federal mandates for privatization focus on service expansion or service revision and, therefore, rural transit managers should make privatization a high priority in both short range and long range transit planning.

In order to enhance the rural transit planning process as it relates to private sector utilization, the rural transit manager should consider three basic issues; cost-identification, management capabilities and local political issues.

Cost-Identification

Transit managers must generate current and accurate cost information in order to accurately evaluate the opportunities for private sector utilization. Federal regulations governing privatization requires that any analysis of the alternatives of private versus public operations include the fully allocated costs, including administrative, operations, maintenance and capital. The rural transit manager must have a cost allocation plan in order to accurately measure the public cost of service provision. Further, the rural transit manager must realize that obtaining accurate cost information from a private provider may be impossible and the manager may have to rely on the private provider's cost proposal for his/her alternatives analysis.

Management Capability

The utilization or private enterprises in the provision of public transit services necessitates additional administrative expertise. Private sector involvement will generate additional demands on the rural transit manager in such areas as service procurement, contract monitoring, contract negotiations and service monitoring.

The planning process should address existing management expertise in these areas and should honestly identify any shortcomings in either the quality or quantity of existing staff relative to private sector utilization. It may very well be the case that private sector management assistance is necessary to accommodate private sector operational involvement.

Political Capability

Most rural transit systems are governed by boards of directors which are composed, in part, of local elected officials. As such, the planning process should address any local political considerations which may dictate the level of private sector participation. For example, some transit system boards wish to maintain significant control over the system's operations and may feel that their control will be diminished by the incorporation of the private sector. On the other hand, local officials are acutely sensitive to complaints from the private sector regarding lost business as a result of activities undertaken by a publicly funded body. In either case, these issues should be identified up-front in order to provide the rural transit manager with the information necessary to appropriate address private sector utilization in his/her service area.

Characteristics of Contracting Opportunities

Studies have indicated that specific technological, managerial and marketplace characteristics make certain services amenable to contracting with the private sector.(3) These characteristics are discussed below.

Managerial Characteristics

The transit manager should develop clearly defined performance standards for inclusion in contract specifications in order for bidders to more realistically price their proposals. The transit manager should also be prepared to monitor the successful bidders performance to ensure contract compliance. The transit manager may include incentives and disincentives in the contract to further ensure performance.(4)

Marketplace Characteristics

In order to maintain the lower costs which make private sector contracting attractive, competition in the marketplace is essential. Since a competitive marketplace is not always possible, particularly in rural and small urban areas, the transit manager may need to make special efforts to generate adequate competition.

Technological Characteristics

Certain types of transit services require special technological considerations, such as wheelchair lift-equipped vehicles or vehicle to vehicle communication capabilities. The transit manager is responsible for ensuring that interested private sector businesses have the equipment or technology necessary to provide the requested level or types of service.

PRIVATE SECTOR CONTRACTS

Once the rural transit manager has decided to utilize a private enterprise in some part of his/her transit system, it is imperative that the manager be knowledgeable of the contracting process.

In general, a rural transit system which utilizes federal funds must procure goods or services in one of four methods; small purchase quotations, competitive sealed bids, competitive negotiations or noncompetitive negotiations.

Small Purchase Quotations

Any contract for less than $10,000 may be let by soliciting price quotations from a representative number of qualified firms, usually a minimum of three. Some state or local governments may have more restrictive limits on small purchase quotations and these need to be investigated prior to initiation of the procurement process. The transit manager should develop a specific description of the goods or services being procured to ensure that all offerers are quoting on an equal basis.

Competitive Sealed Bids

The public transit system must completely specify the goods or services being requested and then publicly solicit firm, fixed-price bids. The contract must be awarded to the responsive bidder who submits the lowest price bid. When utilizing the competitive sealed bid process, the transit manager should develop a bid package which clearly delineates the goods or services being procured, allow at least 30 days from the date of advertisement to the date of bid opening, publicly open the bids and include a provision for the rejection of any and all bids when it is in the best interests of the transit system.

Competitive Negotiations

The public transit system formally advertises a request for proposals and then negotiates with one or more of the responding entities. The system is not required to select the lowest priced proposal but is able to select that proposal which is in the best interests of the organization. This process usually involves personal interviews with one or more the proposers. When utilizing this process, the transit manager should solicit proposals from at least three qualified sources, identify all evaluation factors and award the contract to the offender whose proposal is in the best interests of the transit system.

Noncompetitive Negotiations

This procedure involves negotiation with only one provider. This process is not recommended because limited competition usually results in higher costs for services. However, this process may be necessary if an emergency arises or if there is inadequate competition for a particular good or service.

The procurement process used is a function of the types of goods and/or services being procured. The purchase of gasoline or insurance should utilize the competitive sealed bid process whereby the purchase of transit service should be accomplished via competitive negotiations.

The rural transit manager should develop a contract form prior to the solicitation of bids or proposals and be in a position to discuss the contract with potential bidders. In general, all contracts should specify the goods or services being purchased, detail compensation procedures, specify the time frame and include termination provision.

Table VI-1 provides a list of activities involved in the contracting process.

Table VI-1. The Contracting Process

1. Define the features of the service to be contracted.
2. Develop service specifications.
3. Identify prospective providers
4. Request qualifications from prospective providers. (Optional)
5. Review qualifications and select most qualified.
6. Request bids from prospective providers.
7. Review bids and select most qualified.
8. Finalize contract details and execute contract.
9. Monitor contractor performance.

EXERCISE

The Beachville Transit System provides general public transportation service throughout an eight county region with special emphasis given to serving the elderly and handicapped residents of the region. The transit system is part of an umbrella organization which provides community planning, job training and economic development assistance to local units of government within the region. The umbrella organization's policy board consists of three local elected officials from each of the eight counties.

The Beachville Transit System has a fleet of 18 lift-equipped vans and 12 lift-equipped small buses. The transit system averages 450,000 vehicle miles per year at an average cost of $0.45 per vehicle mile. The transit system contracts annually with the regional Head Start agency to provide all Head Start transportation throughout the region. In addition, the transit system contracts with four different school districts for the provision of special education student transportation to and from the regional community college which is located in an urbanized area served by an urban transit system.

The Foghat Bus Company is a private, for profit bus company headquartered within the region and is owned by Mr. Foghat. Mr. Foghat serves on the community college board and is a member of the County X Board of Supervisors. Another supervisor from County X is a board member of the Head Start Agency. County X contributes $11,000 annually to the Beachville Transit System and $5,000 annually to its umbrella organization.

The Beachville Transit System is interested in contracting out the special education student transportation service to a private transit provider. Based on the previous year's performance, the transit manager estimates total vehicle mileage for the service at 22,000.

Based upon this information, identify any issues which either inhibit or enhance privatization. Further, determine which bidding process the transit manager should use and discuss any impacts this process may have on the umbrella organization.

ENDNOTES

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RURAL TRANSIT BOARD DEVELOPMENT AND TRAINING

OBJECTIVES

The training objectives of this session are:

1. To specify key factors in recruitment to transit boards;

2. To identify strategies to improve relationships between board members and staff; and

3. To determine appropriate methods for evaluating board functioning.

ISSUES

Transit boards, whether a part of a transit authority, a regional authority, a transit district, or a not-for-profit agency, require special planning and development to insure their effectiveness and on-going contributions to the transit agency. Governing boards are the controlling agents of the transit agency, carrying with it full legal liability for the center's operations and the power to make policy.

There are two fairly typical relationships between transit boards and their agencies. The first is a "rubber stamp" board which essentially approves most recommendations made by the director or manager. The message usually conveyed to these board members is that they serve in a somewhat honorary role as board members. The second common relationship is one of conflict between the board and management. In this case, transit board members were chosen to represent the public, or some segment of the public, and not because of their expertise in transit or management. This board may be incompatible with a transportation manager who is technically trained unless the roles of each are well defined. (1) Further, board members representing particular constituents will have vested interests they perhaps will forward to the exclusion of other deserving constituents.

While a transit manager may favor "hands-off" board, in fact, neither "hands-off" or "hands-on" boards are healthy relationships between board and staff. The way a board is recruited and trained and the extent to which the roles are clearly and openly defined so that everyone understands them are the key elements of a successful board, and ultimately a successful agency.
Boards are the direct supervisor of the executive director serving their agency, and should influence the actions of the director in carrying out agency policies and goals. The actual power exercised by a governing board will depend on board motivation and expertise, as well as awareness of board members of their role as a policy-making body. Further, the influence the board exercises over the director will depend on the receptiveness and responsiveness of the executive director relative to the strength of demands made by the board.

Transit board members may be appointed, elected, or both. Composing the board with members who are productive and who contribute to the overall mission of the agency requires planning and constructive thought to qualifications required of your board members. Some agencies get into the trap of recruiting anyone they can to serve on the board, without relating board qualifications to agency needs. Others offer board membership as a favor for a good deed. It is important to recruit members who bring needed expertise to your agency.

Once you have recruited qualified individuals for your board, the next step required is to make good use of board skills and abilities. Establishing a workable structure for the board with the appropriate number of members, a productive committee structure, and a method for on-going and productive communications.

APPROACH

Defining and Clarifying Transit Governing Board Functions

There are ten primary functions of the transit governing board, as follows:

1. Establish and maintain the legal corporate existence of the transit agency

This task involves developing and reviewing organizational by-laws and other legal documents of the agency. Because of the typically multiple funding sources with federal origins and accompanying regulations, reviewing and assurance compliance is a significant task. This task also includes regular reporting, usually annually, of agency operations and expenditures to the public.

2. Establish service operating and personnel policies

The board has sole responsibility for policy determination, but may delegate responsibility to the executive director to help develop the policies. A formal process should be developed for policy development and determination which provides for gathering and evaluating the information required with which to make decisions.

3. Oversee financial management of the agency

The board is responsible for making and approving financial management policies, for approving the budget, and monitoring expenditures. It is also the board's responsibility to appoint an external auditor to conduct an annual audit of the transit agency.

4. Conduct short- and long-range planning of the agency

Planning requires a formal mission statement based on the needs of the community consistent with the established purpose of the organization. The mission statement of the organization is usually established for the longer term. The planning process involves establishing goals and objectives and targets for long term through short term activities.

5. Evaluate the board, director, and service programs

Regular evaluations of all aspects of the program are a must to knowing if goals and targets are being met.

6. Develop and actively participate in community relations program

7. Select and retain executive director

8. Assure quality of service

9. Develop and actively participate in legislative advocacy and community action as appropriate

10. Provide other support functions as needed

Structuring the Board

The Transit Board of Directors should be structured to effectively manage the agency to carry out its mission. Officers and committees should have clearly stated responsibilities with timelines which are carefully reviewed and updated annually to insure that all agency functioning areas are covered.

Board officers are named by title in the by-laws and usually include a president, one or more vice-presidents, secretary, and treasurer. The president is the head of the organization and holds responsibility for conducting meetings, serves as a member of committees, and likely will represent the agency to the community.

The vice-president acts in the absence of the president, but also performs other duties. The vice-president may be assigned as committee chairs, and in a case where there is more than one vice-president, each may chair a standing committee (e.g., personnel, finance, long-range planning).

The secretary records accurate minutes of the organization's meetings and has responsibility for correspondence. The treasurer accounts for the funds of the organization, is responsible for its budget and expenditures and maintains accounts. The treasurer may serve as chairperson of the finance committee and fundraising.

Committees of the transit board are established to help divide the workload, to utilize expertise of its members, to allow for decision-making between meetings of the full board, and to improve satisfaction for board members. Each committee function should be related specifically to the goals of the agency and developed around a single function or issue. The committee structure of a transit agency usually consists of the executive committee, the personnel committee, the finance committee, and planning committee. Other tasks should be covered by ad hoc committees which allow for structured responsibility and involvement of board members. Short-term commitments appeal to busy people with special skills or to people who are testing their involvement with the agency.

Committees may be staffed with people from the community in addition to board members. The chair should be a member of the board, but staff, passengers, professionals, and local citizens can be extremely valuable to the agency. Be sure that each committee has written roles and responsibilities, and is required to report back to the full board on a regular basis. In this way, progress of committees can be monitored and tend to be more productive.

Committees receive their authority from the board. Staff members or other individuals may be given authority to do a job at several levels: (1) limited advisor where the committee investigates and reports but the board makes the decision; (2) active advisor where the committee investigates and suggests action and the board will probably accept committee suggestions, (3) limited agent where the committee can take action with the board's consent, and (4) active agent where the committee takes action and the board later ratifies the action taken. (2)

Recruiting Quality Board Members

Recruiting board members requires that a board composition analysis be conducted on the basis of the mission and by-laws of the transit agency and agency goals over the next five years. Typically a board composition analysis should include a breakdown by age, sex, race or ethnic origin, and sanction. Further, an analysis of skills in particular areas of agency management, resource development or other policy-setting role of the agency might be considered. For example, board members skilled in personnel development, fundraising, fiscal management, the law, or government program management would be extremely useful to a transit board.

The purpose of the board composition analysis is to determine weaknesses in the board composition and to structure the search for new board members. For example, if the board is predominantly white male, board recruitment efforts should be directed to qualified minority and female candidates. If the board composition analysis reveals a lack of expertise in fiscal management, someone with a financial background should be considered.

Once agency board needs have been identified, the next step is to recruit board members. Often, potential board members are recruited with a statement like "Your only commitment is one board meeting a month." If a new member has been told that the responsibility is only one meting, most likely that is the limit of the commitment received. The key to recruiting committed board members is to be specific about why they are important to the organization. They should be solicited on the basis of their specific skills, and from the very first meeting, their responsibilities should be communicated openly.

Board recruitment often falls to the executive director or managers. This communicates a lack of commitment and involvement by the current board. Recruitment efforts from the board members themselves are so much more effective, communicating to that recruit an ongoing interest in the affairs of the organization. Approaching the prospective board member in person with a written job description and identifying the specific role they will play in the organization is the most effective recruitment tool available to an agency.

Orienting and Training Board Members

The next step in building an effective board is to provide comprehensive orientation and training for the new and existing board members. A board notebook with key documents such as by-laws, program descriptions, board and staff job descriptions, committee structure, glossary of terms and acronyms all provide a good orientation manual for new board members.

Providing the new board member with an orientation session to mirror a "day in the life" of the transit agency will provide excellent background information for the new board member. The new board member should spend some time in each major operation of the organization, discussing a brief history of the development of the functional area, overall operations of the functional area, and typical problems encountered on a day-to-day basis. Enough time should be allowed for the board member to get to meet and visit with at least key staff members if not all staff. If the service is fixed-route, encourage the board member to ride at least some of the routes to observe operations. If the service is demand-response, information should be provided about accessing rides and the board member should actually ride on the vehicle. Of course, if the service is a specialized service limited to disabled or elderly passengers, special arrangements would have to be made.

Conducting Productive Board Meetings

The most critical element of a productive board meeting is a well-designed agenda with responsibilities for preparation and presentation specified in advance. Each item on the agenda should be assigned an approximate time, and every attempt should be made to adhere to that timetable. If it becomes apparent that the item will take significantly longer, if possible reassign it to the next meeting or call a special meeting to deal with that issue specifically. In this way, the work that has gone into preparation for the current meeting will not have been wasted, and some positive outcomes will result from the board meetings.

The board president and/or the director should call each presenter on the agenda two or three days in advance to be sure they have prepared the materials and to determine more specifically the amount of time required to cover the topic.

Evaluating Board Functioning

Periodically, at least once a year as part of an overall agency evaluation, the transit board should conduct a self-evaluation which assesses its progress towards goals established the year before. The board should list its successes, determine which goals were not reached and why, and what can be done to achieve them. New or updated objectives should be established, and a determination made of the need for board training in specific areas which will enable the achievement of planned objectives.

EXERCISE

West Star Rural Transit System is a four-county rural transit authority providing fixed route and demand-response services throughout the four counties. The four counties represented include Adams, Baxter, Cody, and Davis. To improve participation throughout the service area, board composition was specified in 1975 when the transit authority was formulated as five representatives from each county for a total board membership of twenty. Each board member term is five years, renewable for three terms, and are appointed by their respective Board of County Commissioners. Average tenure of current board members is eight years. The President of the Board has been on the board for thirteen years.

Betty Laws, the Executive Director of the agency, was hired by the board two years ago by a slim majority of the board. Representatives from Baxter County along with three representatives from Cody County voted against Betty, instead promoting an individual who had applied for the position from Baxter Grove.

Because of some ill feelings among the four counties, board votes are often split by county representation rather than by issue. Betty has worked hard, with support from approximately half of the board members, to initiate board training activities to improve board relationships and board-staff relationships. The activities have had little visible effect on the functioning of the board although board meeting atmosphere has been more positive. In addition to poor relationships between board members, the size of the board seems to make decision-making cumbersome.

The most recent problem faced by Betty has been a situation in which a disgruntled driver whose hours had been cut in Baxter County has taken the grievance to two of the Baxter County representatives on the board. The board members told the driver that she would be able to get her hours back and have begun talking with other board members to get the driver's hours reinstated. The other drivers have heard about the request to reinstate the driver's hours and are complaining about unequal treatment.

The following is a profile of current board members.

Board Profile

	County	Race	Sex	Age	Begin Term	End Term	Occupation
1	A	W	F	62	75	90	Accountant
2	A	W	F	66	80	90	Retired lawyer
3	A	W	M	57	85	90	Homemaker
4	A	W	M	45	85	90	Supervisor
5	A	B	M	52	80	90	Retail store owner
6	B	W	M	68	75	90	Retired physician
7	B	W	M	63	75	90	Janitor
8	B	W	F	34	85	90	Nurse
9	B	W	M	69	80	90	Retired
10	B	W	M	71	80	90	Retired
11	C	W	M	54	75	90	Utility company
12	C	W	F	44	85	90	Telephone company
13	C	W	M	61	75	90	Restaurant owner
14	C	W	M	59	80	90	Social service agency
15	C	W	F	48	80	90	Lawyer
16	D	W	M	68	75	90	Retired
17	D	W	F	65	80	90	Retired
18	D	W	M	72	75	90	Retired
19	D	W	F	41	85	90	Social service agency
20	D	W	M	58	80	90	Retail store clerk

Board Development and Training
Group Exercises

1. Do the skills of the board members appear to be well-balanced? If not, how could recruitment be more effective? Is there value to staggering terms of the board?

2. What steps do you recommend to restructure the board to function more effectively?

3. What training activities might be implemented to improve board functioning?

4. How should the board deal with the driver's hours situation? Has anyone acted inappropriately? Who and in what ways? Can it be resolved? How can it be prevented in the future?

ENDNOTES

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3. Fielding, Gordon J., Managing Public Transit Strategically, San Francisco: Jossey-Bass, 1987.

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PERSONNEL MANAGEMENT

OBJECTIVES

The training objectives of this session are:

1. To review basic management concepts;
2. To identify means of accomplishing the basis management concepts; and
3. To provide mechanisms for improving personnel management.

ISSUES

The overall goal of any rural public transit system is to provide public transportation services of the highest quality possible. Success in achieving this goal is dependent, in a large measure, on the competency and dedication of the system's employees. It is the responsibility of the transit manager to ensure that high quality personnel are hired by the transit system and that each employee is allowed to grow to his/her full potential.

The world of management is full of management theories regarding organizational structures and personnel issues. Some professional managers prefer a hierarchical organizational structure versus a basic matrix organizational structure. While effective personnel management is critical to the success of rural transit systems, the focus should be placed on what works within the organization. The transit manager should not attempt to impose a specific management theory on his/her organization but, rather, should develop his/her own management approach within the unique constraints (opportunities) of each organization. Effective personnel management will result in a more efficient transit system and more productive employees.

This section will focus on the major components of an effective personnel management system and provide the rural transit manager with concepts for enhancing the quality of personnel in his/her system.

Management Philosophies

- Regardless of which, if any, management theory the transit manager applies to his/her system, there are several standard managerial concepts which should be implemented.

- Provide an environment conducive to personal growth. Allow flexibility in work hours, if possible. Compliment employees when they have performed well.

- Provide lists of primary responsibilities for each employee. Specific job descriptions may be fine for repetitive jobs but tend to function as straitjackets for judgment-related positions. Allow employees to exercise their judgment.

- Provide an environment conducive to employee participation. Conduct periodic idea sessions and reward employees for cost-saving or revenue-enhancing ideas. Provide feedback to employees regarding the success or failure of a new idea.

- Provide an environment where each employee understands who has the ultimate decision making authority. Allow subordinates to make certain decisions with the understanding you will support them. Conversely, make sure everyone knows who makes the major decisions and accept full responsibility, regardless of the outcome.

- Provide an environment conducive to professional growth. If a vacancy occurs, attempt to promote an employee from within the organization. Encourage employees to attend career oriented conferences and meetings.

- Provide an environment which maximizes interpersonal communication. Regular memos end up like anything else does regularly -- they lose impact. Attempt to convey new ideas or procedures on a face-to-face basis. Conduct regular meetings with vehicle operators to generate input and discuss any problem areas.

- Understand that employees can, and do, enjoy work given the proper environment for personal growth.

- Lists of primary responsibilities are more practical than job descriptions since they allow for flexibility in the employee's day-to-day activities.

- Each employee should be allowed to participate in the organization through "idea meetings" or use of suggestion boxes.

- Make sure every employee understands where the ultimate decision is made.

- Delegate authority as frequently as possible.

- Make sure that employees as much as possible have meaningful or enjoyable work.

- Conduct meetings and disseminate memos only when necessary. Keep staff meetings brief and informative.

- Remember, the individuals who work for you are people first and employees second. Treat them as you would want to be treated if the roles were reversed.

- Any organization with more than one employee is a team and should be managed as such. Let each team player perform his/her duties under the guidance provided by you, the coach.

Personnel Management

Although the transit manager is encouraged to develop his/her own unique management approach, there remain basic activities which must be implemented to ensure the orderly operation of the organization.

- Job Descriptions/List of Primary Responsibilities

- Each employee should have within his/her personnel file a written list of primary responsibilities. These should be specific enough to provide the employee with direction yet flexible enough to allow for individual flexibility and decision-making. Table VIII-1 provides a list of example primary responsibilities for a transit manager.

Policies and Procedures

Every rural transit system should develop a written manual which clearly enumerates the operating procedures and management policies which govern the system. The rural transit manager must view this manual as a guide for personnel performance and development, not as a list of rules which best not be violated. Issues which should be included in the policies and procedures manual include recruitment and selection, equal employment/ affirmative action program, employee evaluation, dismissal/resignation, fringe benefits and grievances. Table VIII-2 provides an example table of contents for a policies and procedures manual.

Employee Evaluations

All employees should be evaluated with respect to their job performance at least once a year. Employee evaluations provide both the transit manager and the employee the opportunity to discuss issues which may be impacting the overall system. Employee evaluations should not be viewed as an opportunity for criticism, but an opportunity for positive interaction. All employee evaluations should be recorded in written form and placed in the employee's personnel file. The governing body should appoint a sub-committee to conduct an annual evaluation of the transit manager.

Personnel Selection

Selection of new employees is one of the more important duties of the transit manager. The selection process should be an established procedure which includes advertisement for new positions, both within the organization and to the public, a concise application form and a consistent interview format. The interview is the most critical aspect of the personnel selection process and it should be noted that the transit manager is prohibited from asking certain questions during the interview. Table VIII-3 provides a sample listing of permissible and prohibited interview questions.

Employee Motivation

Keeping employees motivated may be a difficult task for a transit manager unless he/she understands that employees have needs that go beyond food and shelter. Once employees are committed, they tend to drive themselves harder than any manager in order to satisfy their egos and development needs. Compliment employees when the situation warrants and allow them greater decision-making authority. While payroll increases and bonuses remain significant motivators, they can be abused. Employees must be judged on performance, not on looks or personality. Rewarding under-achievers tends to result in less motivated employees.

Table VIII-1. List of Primary Responsibilities - Manager

- Manage all phases of the transit system including operations, maintenance and administration.
- Establish and review accounting and reporting procedures.
- Serve as liaison between the transit system and city, county and state transportation officials.
- Serve as liaison between transit system and the system's governing body.
- Manage all personnel matters including hiring and firing of employees.
- Supervise marketing and public relations efforts.
- Supervise vehicle procurement.
- Prepare applications for local, state and federal financial assistance.
- Implement necessary operational changes.
- Any other responsibilities as directed by the governing body.

Table VIII-2. Policies and Procedures Manual Outline

1. Statement of Guiding Principles

2. Equal Employment Opportunity

3. Personnel

   - Full-Time Employee
   - Part-Time Employee
   - Job Description
   - Recruitment and Selection
   - Employee Evaluation
   - Retrenchment
   - Grievance Procedures
   - Dismissal
   - Resignation
   - Illness and Emergencies
   - Sick Leave
   - Expenses
   - Physical Examinations
   - Holidays
   - Vacation
   - Reporting Requirements
   - Employee Injury
   - Vehicle Maintenance/Repair
   - Jury Duty
   - Vacation
   - Outside Employment
   - Political Activity

Table VIII-3. Premissible and Prohibited Interview Questions

	Permissible	Not Permissible
Name	First, middle, and last names; nicknames	Reasons for name change
Address	Address, telephone number	Length of time at present address; owns, rents or lives with relatives
Age	"Are you under 18?": work permit; birth certificate (after employment)	Birthdate (prior to employment)
Sex		Inquiry into sex of applicant
Marital Status		Marital status or maiden name
Religion/Creed		Any inquiry concerning religion or creed
Race/Color		Any inquiry concerning race or color
Education	Schools attended, courses taken, grades	Religious affiliation of School or date of high school graduation
Military service	Discharge papers (after employment), titles, and responsibilities	General military experience, type of discharge, rank
Organizations		Organizations not job related
Physical Characteristics	Only if specifically job related	Inquiries about height, weight, etc.; establishing minimum standards; discrimination against physically handicapped is unlawful, if applicant is able to perform; reasonable accomodations must be made

Table VIII-3. Permissible and Prohibited Interview Questions (continued)

Criminal Record	Convictions	Arrests
Character References	OK to ask for references	Asking references information prohibited by other nonpermissible inquiries
Relatives	Relevant information (after employment)	Inquiries not allowed
Birthplace	Proof of birth or citizenship (after employment)	Birthplace, birth certificate
National Origin	Languages able to read speak, and write	Lineage, ancestry, national origin, descent, or parentage
Citizenship	"Are you a U.S. citizen? If not a U.S. citizen, do you have the legal right to work/ remain permanently in the U.S.?" Proof of citizenship (after employment)	Inquiries which reveal national origin

SOURCE: Michigan Department of Transportation, Small Transit System Management Handbook, The Department, Lansing, Michigan, December 1985, p. 219.

Employee Termination

The counterpart to personnel selection and motivation is employee termination. It often takes place in a very emotionally-charged environment. The decisions which must be made are among the most weighty in that they affect the livelihood of the individual and his/her family, as well as potential liability to the organization. Judgments generally have to be made on information supplied by subordinates about events which occurred where the manager was not physically present. At a minimum, the following should be a part of any transportation organization's disciplinary structure.

- There should be a formally adopted personnel policy which covers discipline and termination.

- The employee should have a personal copy of the policy and the manager should have gone over pertinent discipline and discharge provisions at an early date with each employee.

- All official reprimands or warnings should be in writing and discussed with the affected individual prior to placement in his/her official record. The individual should have an opportunity for a written rebuttal.

- All individuals should have access to, and be informed of, the availability of a formal grievance procedure, which, at his or her option, can proceed through the organizational hierarchy to the highest policy body.

- In the case of termination, there should be a clear written record to indicate the appropriateness of the severity of the remedy. Sufficient time should have elapsed to allow for a thorough and dispassionate review of the facts and circumstances of the case.

- There should always be an appeal process above the final hiring and firing authority (i.e., Board of Directors).

With a fair and objective process in place, the individual management decisions should be better and the individuals within the organization will respond better when negative situations have to be dealt with.

EXERCISES

EXERCISE 1

The SJR Transit System employs 8 full-time and 3 part-time bus drivers. During 1987, the Board of Directors of the SJR Transit System voted to provide all full-time drivers with 2 weeks paid vacation and 8 paid holidays. Part-time drivers do not receive these benefits.

The SJR Transit Manager has received several complaints from the part-time drivers regarding the unfairness of this issue and the transit manager is now considering what, if anything, should be done about the issue.

Assume you are the transit manager and develop a position on the issue, with special consideration of the following items.

- Employee morale
- Employee motivation
- Employee responsibilities
- System costs

EXERCISE 2
ROLE PLAYING EXERCISE

Designate one member of the group as the interviewee, the remaining members serving as interviewers. Conduct an interview for the position of assistant manager and have the observer note any positive aspects of the interview. Discuss the process as a group and provide a brief presentation to all attendees.

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COMMUNICATION SKILLS

OBJECTIVES

The training objectives of this session are:

1. To review principles of communication and terminology of communications;

2. To review principles of good listening and how they effect the communication process; and

3. To discuss issues associated with special communication events.

ISSUES

Managers of transit systems must be skilled communicators to be successful. Transit managers are in a position which requires communication with varied social and educational backgrounds as well as communication with handicapped persons. A transit manager may find themselves communicating with a university president one hour on student transit needs, and in the next hour, they may be communicating with a high school educated tow truck operator about how to move a bus. Each communication event requires a slightly different approach yet the manager needs to be skilled in all approaches to achieve desired objectives and program success.

APPROACHES

Communication Defined and Some Principles

The simplest definition of communication is depicted in Figure IX-1. However, it can be argued that no communication has occurred unless the receiver understands the message the way the sender intended. It is for this reason that successful communication always involves some feedback loop. The feedback loop allows the sender to test and see if the receiver understood the message.

Message sending as part of the communication event should be approached with the same tools as any other management task, that is, goals, objectives and targets. Just as management by objectives is an accepted practice. Communication by objectives is a practice that successful communicators utilize.

Every communication event should be examined to determine the overall goal (inform, entertain, persuade the audience), objectives and targets. Once the overall purpose, goals, objectives, and targets are established, the next phase of a communication event is to determine who the intended receivers (audience) are, and what special characteristics they possess which may effect the message content or purpose. Finally, the message sender should utilize those techniques (audio visuals, question and answer sheets, role playing, etc.) that will best fit the purpose and audience that is being presented with the message.

Figure IX-1. Communication Model

Source: Adapted from W. Conrad and W. Glenn, The Effective Voluntary Board of Directors, (Chicago: Swallow Press, 1976), p. 77.

Techniques and tips for successful communication should not be so cumbersome or unnatural that the sender is uncomfortable or unable to concentrate on the task at hand. The following list of communication technique tips covers a range of items from audio visuals to the senders attitude. It is intended to alert senders to common pitfalls and errors.

1. Speak clearly.
2. Speak as briefly as possible -- and to the point.
3. Show that you are interested in the subject. Actively listen to all comments and questions.
4. Be sincere.
5. Keep the facts straight. If you express an opinion, say so.
6. Maintain eye contact.
7. Don't be defensive. If you are, examine <u>why</u> you are. Is the agency's case a weak one?
8. Explain, don't apologize.
9. Be specific about what can/will be done. Be equally specific about what cannot be done.
10. Be honest. If you don't know, say so.
11. Forget about your gestures. They will come naturally if you "let go."
12. Refer to your graphics and handouts, if you have them, as much as possible. Lay people remember graphic illustrations but may neither grasp nor remember level-of-service numbers
13. Color code your handouts for easy reference.
14. Use plain English. If you think you do and are told you don't, get help.
15. Be objective.
16. Be friendly.
17. Be concise. Stick to the pertinent points and move to additional detail only when your audience is ready.
18. Understand who your audience is. Empathize with them and understand why you are involved in the particular communication event.
19. As much as possible, do a dry run of all communication efforts and anticipate questions.
20. Follow-up for feedback to determine success or failure of your efforts.(1)

Implicit in both the Communication-Feedback model (Figure IX-2) and the Message Development Model (Figure IX-3) are the need for analysis and listening skills. To obtain feedback, managers are required to be good listeners. Poor listeners usually decide quickly in a communication event that the sender has some fault or the message is dull or inaccurate. The poor listener quickly begins to formulate what they are going to say while the other person is talking. To overcome these problems or poor listening, Figure IX-4 presents "Ten Commandments for Good Listening."

<u>Impromptu Speaking and Short Communication Events</u>

A manager's ability to "think on their feet" often separates the managers of excellence and the average manager. The ability to calmly speak on an instant's notice not only enhances the perception of the manager as a leader but it can actually put others at ease and "break the ice" or "ease the tension."

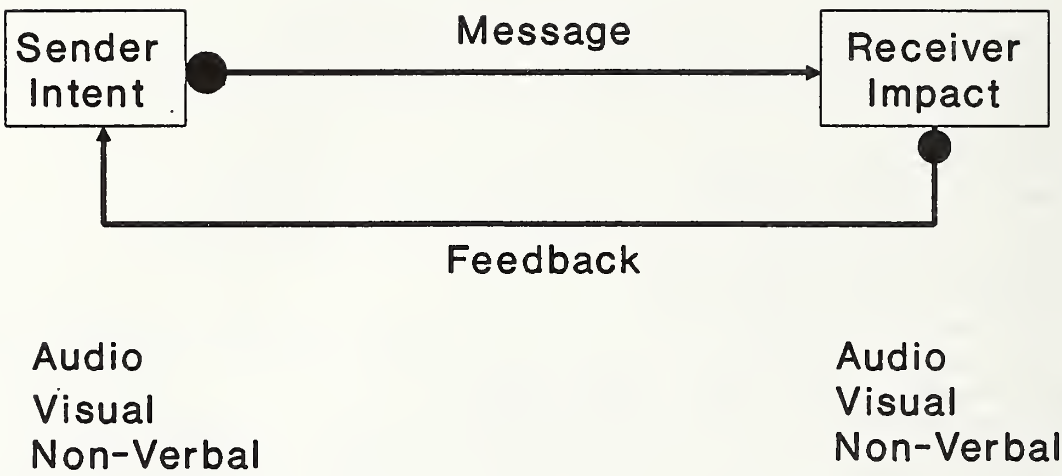

Figure IX-2. Communication Model with Feedback Loop

Source: Adapted from W. Conrad and W. Glenn, The Effective Voluntary Board of Directors, (Chicago: Swallow Press, 1976), p. 77.

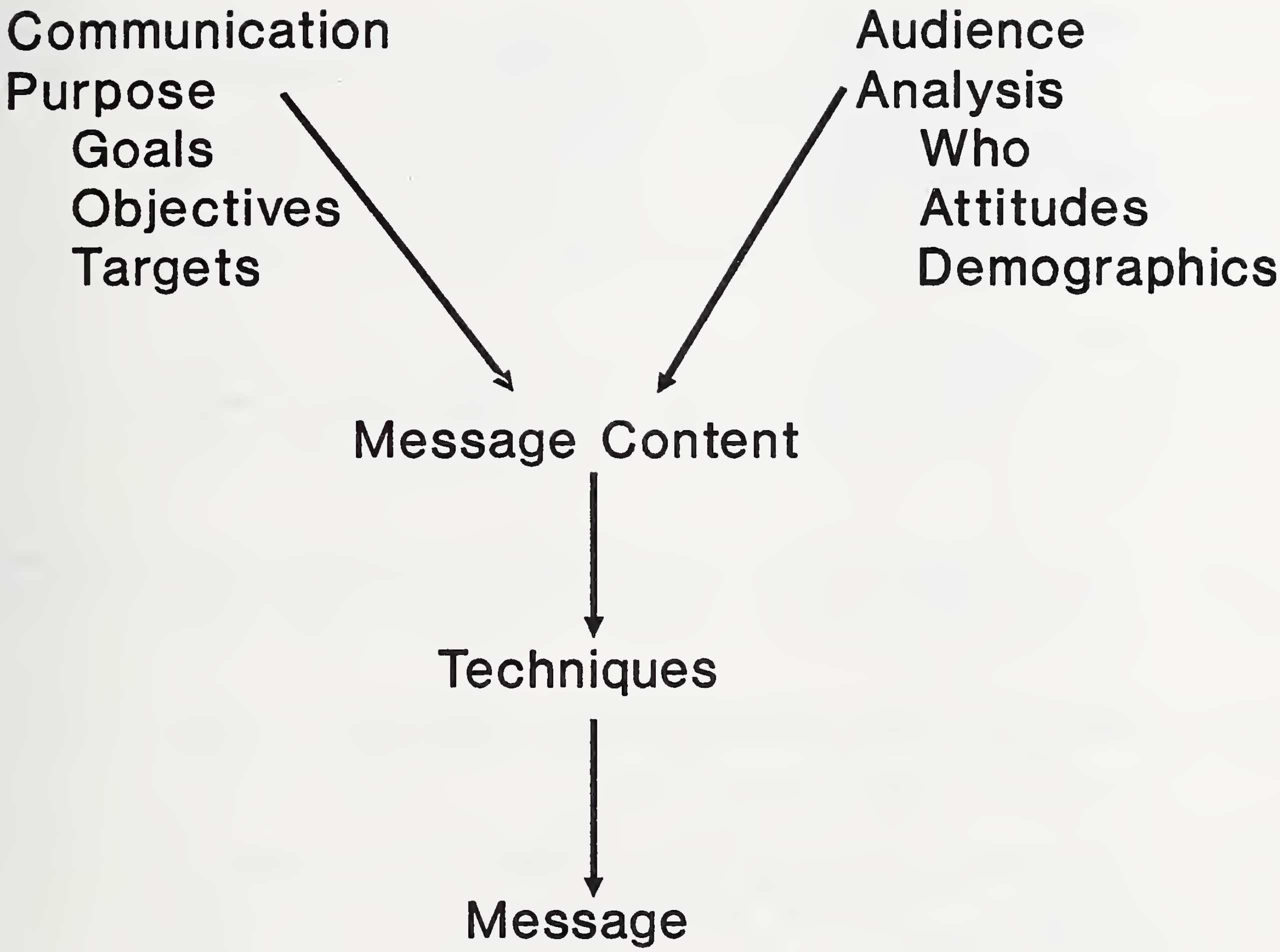

Figure IX-3. Message Development Model

1. STOP TALKING!

   You cannot listen if you are talking. Polonius (Hamlet): "Give every man thine ear, but few thy voice."

2. PUT THE TALKER AT EASE.

   Help him feel that he is free to talk. This is often called a "permissive environment."

3. SHOW HIM THAT YOU WANT TO LISTEN.

   Look and act interested. Do not read your mail while he talks. Listen to understand rather than to reply.

4. REMOVE DISTRACTIONS.

   Don't doodle, tap, or shuffle papers. Will it be quieter if you shut the door?

5. EMPATHIZE WITH HIM.

   Try to put yourself in his place so that you can see his point of view.

6. BE PATIENT.

   Allow plenty of time. Do not interrupt him. Don't start for the door or walk away.

7. HOLD YOUR TEMPER.

   Any angry man gets the wrong meaning from words.

8. GO EASY ON ARGUMENT AND CRITICISM.

   This puts him on the defensive. He may "cal up" or get angry. Don't argue: even if you win, you lose.

9. ASK QUESTIONS.

   This encourages him and shows you are listening. It helps to develop points further.

10. STOP TALKING!

    This is first and last, because all other commandments depend on it. You just can't do a good listening job while you are talking. Nature gave man two ears, but only one tongue, which is a gentle hint that he should listen more than he talks.

Figure IX-4. Ten Commandments for Good Listening

Source: Davis, Keith, <u>Human Relations in Business</u>, (New York: McGraw-Hill) in D. Kirkpatrick, <u>No-Nonsense Communication</u> (Elm Grove, Wisconsin: K&M Publishers, 1978), p. 122.

It is a well known fact that many politicians and entertainers have an entire repertoire of so-called impromptu remarks to fit almost any situation. The transit manager should also approach every meeting or social situation by saying to themselves "what will I say if I am suddenly called upon to say a few words?"

When you are called upon unexpectedly to say a few words, you need to prepare swiftly -- in fact, instantly. Perhaps along these lines:

1. Should I say something about the organization? An answer to this question may supply your central idea: you may decide at once to talk on "What Rotary Has Meant To Me." One point is enough: "Rotary keeps reminding me to build my business on service to the customer." Or: "What Phi Delta Delta Has Meant to Me." Central idea: "Phi Delta Delta taught me the value of true friends."

2. Should I bring greetings from the firm or institution I am now connected with? Or should I report on what my district, or state, is doing? A short talk of this nature may be proper; and although you could speak at some length on this familiar topic, you quickly select a single example or illustration to develop.

3. Is reminiscing in order? Perhaps you would open by saying, "As I look over the new quarters of the club, I am reminded of an incident that happened in the old quarters." Such an impromptu talk, if kept brief, might be suitable.

4. Should you commend or congratulate the organization, or its officers? Something new or unusual may have come to your attention that you wish to comment on.

5. If the group is discussing a controversial issue, and the chairman unexpectedly turns to you and asks you what you think, you will have to state briefly what you do think: you favor the proposal, or you favor it with some change; or you are opposed to the proposal. The one-point-speech formula of "central idea followed by a supporting reason" is useful. As you rise, formulate your central idea: "Mr. Chairman, I favor the proposal, because..."; or "Mr. Chairman, I am planning to vote against the proposal, because..."; or "Mr. Chairman, I believe we can reconcile the disagreement here tonight by doing thus and so..."; or "Mr. Chairman, here is a situation that might arise if we adopt the proposal..."; and so on. (2)

The transit manager will also appear gracious, cordial and appreciative by becoming familiar with the six types of short communication events which may have qualities to impromptu speeches. The six short communication events are: 1. Introductory; 2. Presentation; 3. Acceptance; 4. Welcome; 5. Response to a Welcome; 6. Farewell. The basic purpose of each of these short communication events is shown in the following list. (3)

1. **Speech of Introduction**

By common custom, a speaker is introduced to an audience before he makes his speech.

A good speech of introduction makes the audience interested in hearing the speaker. It assures the speaker that he is among people who appreciate his being with them. It serves as an ice-breaker. In all these ways, it helps the speaker to make a better speech.

2. **Speech of Presentation**

Those who do distinguished service are presented awards, citations, certificates, medals, letters, diplomas, gifts.

The purpose of the speech of presentation is two-fold: (1) to honor the recipient and (2) to inspire others to emulate his record. The second purpose, often left unmentioned, is non the less operative.

3. **Speech of Acceptance**

When you are presented with an award or gift in public, you are expected to make a reply. Although speeches of acceptance are usually brief, and may be impromptu, on formal occasions like the acceptance of a building or a recreation center by a college, they may be ten to fifteen minutes or longer.

The purpose of the speech of acceptance is primarily to express the individual's appreciation of the award or gift and of the sentiment underlying it. A secondary purpose may be to reaffirm his affection for the organization presenting the gift.

4. **Speech of Welcome**

A speech of welcome may be made in behalf of a congregation to a new minister; in behalf of a faculty to a new president; in behalf of a firm to a new manager; in behalf of an organization to a former member who has been absent on military service; and on scores of similar circumstances. You may of course address a speech of welcome to a group as well as to an individual.

The purpose of the speech of welcome is to greet the newcomer or the returnee. Extending the greeting in public enhances the honor and makes it more impressive. A secondary purpose may be to review the aims and goals of the group extending the welcome.

5. **Speech Responding to a Welcome**

After a formal speech of welcome, the individual should respond in his own behalf, or in behalf of the group being welcomed.

The purpose of the response is to express appreciation for the courtesy extended. A secondary purpose may be to review what the individual, or the group, hopes to accomplish through association with the welcoming group.

6. **Speech of Farewell**

A speech of farewell may be made by a person going to another community or to another institution or company.

The purpose of the public farewell speech is to express your regrets at severing a communication that you have enjoyed for some time.

The manager should recognize the importance of being adept and at ease in these six areas because in each situation the entire attention of receivers will be focused on them. Success in these events ensures that the manager will be perceived as gracious and a leader.

EXERCISES

EXERCISE 1

Describe a communication event where you feel you "blew it." Tell what you learned and how you have avoided getting into a similar situation.

Also describe a communication event where you feel it went well and you achieved your goals.

EXERCISE 2

John Thomas is the manager of Valley Sand Transit. John is planning his last staff meeting before he leaves for his new position at County General Hospital. His 17 staff members have never met the Chairman of the Board of Directors Personnel Committee, Fred Boxler, who will be attending the meeting to present John with a plaque. Mr. Boxler is also going to describe to the staff how John's replacement will be hired. The only day that the Personnel Committee Chairman can attend the staff meeting is the same day that two visitors from Japan are scheduled to come and observe John's innovative telephone computer information system.

Activity:

1. Describe how the major participants will utilize the six types of short speeches:

    1. Introduction
    2. Presentation
    3. Acceptance
    4. Welcome
    5. Responding to a Welcome
    6. Farewell

2. Describe issues of concern and ways to approach the staff meeting under three different circumstances:

    a. John is loved and respected by all and is leaving on good terms.
    b. John is loved by the staff but has been asked to leave by the Board.
    c. Nobody cares for John; he has been ineffective as a manager and everybody is glad that the County General Hospital hired him.

ENDNOTES

1. List adapted from USDOT, Federal Highway Administration, Improving the Effectiveness of Public Meetings and Hearings, Washington, DC, September 1979, pp. 52-53.

2. L. Reid, First Principles of Public Speaking, Columbia, Missouri: Artcraft Press, 1965, p. 301.

3. Ibid., pp. 304-315.

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3. L. Reid, First Principles of Public Speaking, Columbia, Missouri: Artcraft Press, 1965.

4. USDOT, Federal Highway Administration, Improving the Effectiveness of Public Meetings and Hearings, Washington, DC, September 1979.

5. P. Zimbardo and E. Ebbesen, Influencing Attitudes and Changing Behavior, Reading, MA: Addison-Wesley Publishing Company, date unknown.

COST CONTROL

OBJECTIVES

The training objectives of this session are:

1. To review traditional cost categories within transit systems;

2. To provide an understanding of the different types of costs; and

3. To provide specific suggestions for controlling transit system costs.

ISSUES

One of the more pressing challenges facing the rural transit manager is the maintenance of program costs at a level which allows for continued service provision at existing levels. This task is particularly challenging given the fact that operating subsidies from federal, state and local governments are remaining stable at best and, in the case of the federal government, are actually decreasing. These factors present the rural transit manager with the challenge of initiating management procedures which will minimize the continued increase in operating costs or, hopefully, actually result in a reduction of costs.

This section will provide the rural transit manager with an understanding of the specific cost categories which may be controlled and discuss specific actions which may be undertaken to realize more cost-effective public transportation service.

COST CATEGORIES

Administrative Costs

Administrative costs are those expenses associated with the day-to-day management of the transit system. Administrative costs include:

- Staff salaries and fringe benefits;
- Dues and subscriptions;
- Travel and meetings;
- Advertising and marketing;
- Facility leases;
- Liability and property insurance;
- Professional service fees;
- Facility utilities;
- Legal fees;
- Accounting fees;
- Telecommunications;
- Equipment; and
- Materials and supplies.

Operating Costs

Operating costs are those expenses which are associated with keeping vehicles on the road on a daily basis. Operating costs include:

- o Driver's wages and fringe benefits;
- o Gasoline and oil;
- o Liability and collision insurance;
- o Driver's uniforms and miscellaneous expenses;
- o Dispatcher's salaries and fringe benefits;
- o Vehicle storage costs; and
- o Licensing and registration.

Maintenance Costs

Maintenance costs are those expenses associated with the routine upkeep and major repair of transit vehicles. Maintenance costs include:

- o Maintenance personnel salaries and fringe benefits;
- o Maintenance materials, supplies and parts; and
- o Subcontracted service fees.

Capital Costs

Capital costs are those expenses associated with the acquisition of transit vehicles for use in revenue service.

Depreciation Costs

Depreciation costs are those expenses associated with the annual decrease in value of machinery, equipment or furnishings. While not an actual out-of-pocket expense, depreciation expenses should be calculated and an equal cash amount "set-aside" annually to provide funds for replacement.

TYPES OF COSTS

Once the transit manager has established a comprehensive list of cost categories, he/she may begin to analyze those costs to determine an initial list of cost categories to target for reduction. The transit manager must understand that certain types of costs are related to the level of service provided and are usually referred to as variable costs. Examples of variable costs include gasoline, driver's wages, maintenance and telecommunications. Other costs are not impacted by service levels and remain constant regardless of how many trips are provided or how many miles are traveled or how many hours vehicles are utilized. These types of costs are referred to as fixed costs. Examples of fixed costs include the transit manager's salary, facility rent, insurance premiums and dues and subscriptions.

The transit manager will find that the majority of fixed costs are associated with the administrative cost category, while variable costs are more prevalent in the operating, maintenance and capital cost categories. Because of their nature, fixed costs are more difficult to control and, therefore, the transit manager should not devote extraordinary resources attempting to discover ways for controlling these types of costs. Variable costs, however, are more inclined to be reduced due to administrative decisions. Therefore, the rural transit manager should focus his/her efforts on identifying those variable costs which may be most easily controlled.

Data Collection and Cost Control

In order for the rural transit manager to achieve success in controlling system costs, it is critical that he/she obtain accurate data relative to the financial and non-financial aspects of the transit system. The transit manager should consider the degree of difficulty in obtaining accurate data as he/she is developing the cost categories. The aforementioned examples are basic and should present no problem to any rural transit system. However, it is of no value for the rural transit manager to attempt to analyze miscellaneous drivers' expenses if data is not being recorded accurately. While the notion of accuracy in data collection may appear basic, too many examples exist of bad data causing bad management decisions.

The rural transit manager should utilize a computerized data base management system to assist in the compilation of accurate cost information. While expensive computer hardware and software cannot compensate for human error in entering data, their use will facilitate the transit manager's cost analyses.

For rural transit systems which coordinate the services of a variety of providers, it is essential that the transit manager demand accurate cost reports from each entity. The analysis of transportation costs on a systemwide basis cannot be accomplished if reporting entities do not understand the significance of accuracy.

Cost Allocation

For transit managers who provide service to a variety of clients on a purchased basis, it is necessary to develop a means for equitably determining the costs of such services. A cost allocation plan incorporates the cost categories (i.e., driver's wages) with the cost types (i.e., fixed costs) in order to determine periodic billings for each consumer.

Cost Control Measures

The establishment of cost categories and the accurate collection of both financial and non-financial data will provide the transit manager with the information necessary to determine opportunities for cost control. Examples of cost control measures which may be implemented by a rural transit manager include the following:

- Participation in a joint purchasing agreement for capital equipment will usually result in a reduced price for each unit acquired.

- Contracting with one supplier for the bulk purchase of gasoline will, again, usually result in a reduction in the average cost per gallon.

- Where appropriate, the use of volunteer drivers or dispatchers will provide obvious cost reductions in the operating sector of the transit system.

- Publicly owned and private, non-profit transit systems are exempt from payment of state sales tax. The transit manager should obtain a tax-exempt number for his/her organization.

- An increase in deductible levels for health insurance policies will result in a reduction in monthly premiums.

- Obtaining professional services, such as accounting services, through a competitive process will usually result in reduced costs.

- Implementation of an effective risk-management program may result in reduced insurance premiums for liability coverage.

Each cost control measure which is implemented by the transit system should be monitored in order to determine if the measure has resulted in the desired effect of reducing costs while not negatively impacting service. Some measures, such as increased deductibles for health insurance policies, will result in an immediate and noticeable reduction in costs. Other measures, such as exemption from state and/or federal taxes, may require time before their impacts are noticed. The utilization of monthly financial reports will assist the transit manager in determining the impacts of cost control measures.

EXERCISES

EXERCISE 1

The Fiscal Year 1988 Audit Report of the SJR Transit System shows an increase in costs from the previous year of $25,000. Specifically, insurance premiums rose $12,000, gasoline costs increased by $10,000, and drivers salaries and fringe benefits increased by $3,000. A review of the system's non-financial year end report revealed an increase in ridership of 5,000.

Given this basic information, should the transit manager be concerned about the increased costs? What additional information would assist the transit manager in his/her analysis? What options might the transit manager consider for controlling these costs?

EXERCISE 2

The SJR Transit System has a fleet of 8 vehicles which are used to provide both fixed-route and demand responsive service throughout a 6 county area. None of the vehicles are equipped with fare boxes and passenger revenue is collected in money bags which are in the driver's possession. Each driver periodically deposits the revenue in a savings account which the transit system has established in each of the counties. The drivers submit bi-weekly reports which total the revenue received and the transit manager then submits monthly invoices to the individual banks for the amount of revenue as reported by the drivers.

What problems, if any, do you see with this method? What issues should the transit manager be concerned with? What policies or procedures, if any, should the transit manager implement to improve the situation?

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3. Carter-Goble Associates, Rural Public Transportation Performance Evaluation Guide, Pennsylvania Department of Transportation, Harrisburg, Pennsylvania, 1982.

4. Michigan Department of Transportation, Small Transit System Management Handbook, The Department, Lansing, Michigan, 1985.

FACILITIES AND PROPERTY MANAGEMENT

OBJECTIVES

The training objectives of this session are:

1. To build awareness of maintenance needs and management needs of facilities; and

2. To build awareness of property management and inventory procedures.

ISSUES

Often transit services have acceptable maintenance and parts inventory procedures for their fleet of transit vehicles but no maintenance procedures for their building or other equipment. Further, some organizations do not have a physical inventory of their assets besides their vehicles.

The purpose of this section is to assist program managers in developing procedures for maintaining other physical assets besides vehicles.

APPROACHES

Property and facilities benefit from a maintenance program just as vehicles do. A regular reliable system staffed by an assigned individual will cause mechanical items (such as furnaces and air conditioners) to be properly inspected and repairs conducted when needed.

Typically the duties of property and equipment maintenance are conducted by the chief individual assigned to vehicle maintenance or the individual assigned to office management. Whoever receives the assignment should prepare a manual on all major components.

The manual should contain a written description of all the major maintenance needs of the facility. Instruction manuals for the major components can be the basis of the written description.

A checklist (Figure XI-1) listing major components and their needs is a help in managing the facility.

<u>Inventory Control of Non-consumable Items</u>

Inventory of non-consumable items (life span longer than 2 years) control involves establishing and maintaining the records and procedures for accounting for the physical assets of a service.

The purpose of inventory control of physical assets is to discover if items are lost, stolen or destroyed. An accurate inventory list will assist in settlements of insurance claims and facilitate a depreciate and replacement program.

October

Heating System

Replace Furnace Filters

Inspect Flue

Inspect Pilot

Dust and vacuum all vent openings

Figure XI-1. Sample Checklist for Assisting in Maintaining Facility

Generally all physical assets which are moveable, easily identifiable, and of a certain dollar value (dollar value varies with local conditions - $50-$500 is typical) are affixed with a permanent tag, identification number or tag. This permanent tag on the item allows a complete list of equipment to be developed which can be verified periodically. Usually, inventory is assessed at least twice a year.

If an accurate purchase order policy is in place items are automatically entered onto the permanent inventory when they are delivered.

EXERCISE

Jose Chavez has just purchased the Lakeland Area Bus Company (LABCO). LABCO was a family run business for 35 years that deteriorated over the years before it went bankrupt last year. Jose has already been successful in re-establishing LABCO as a possible service provider in his county with the Area Agency on Aging. But the property is run down and there are parts and supplies scattered throughout the four bag garage and office complex. Jose even found some parts for a Blue Star Arrow bus which LABCO has not operated in five years and the Blue Star has not been in production for twelve years. Jose noticed in the last rain storm that parts of the roof leak.

The lead dispatcher (who was passed over for promotion to manager just before Jose bought the business) claims the desk and chair he uses belong to him.

1. Jose wants to implement an easy to manage building and grounds maintenance program. What major areas should Jose focus on and what should he do first?

2. Jose also wants to establish a non-consumable inventory program. What major issues should he be concerned with and what should he do first?

COMPUTER ACQUISITION AND DEVELOPMENT FOR RURAL AND SMALL URBAN TRANSIT AGENCIES

OBJECTIVES

The training objectives of this session are:

1. To examine cost effectiveness of computerization in rural transit agencies;

2. To examine computer networking needs of rural transit agencies;

3. To examine personnel issues in computerization; and

4. To explore equipment and software procurement issues in rural transit agencies.

ISSUES

Certain planning, development, and implementation activities are necessary in all settings, regardless of the size or character of the agency. These activities include conducting a computer needs assessment, procurement, and staff training. In all these activities, it is important for the agency to establish an environment conducive to converting from manual to computer-supported procedures. Adequate planning and preparation of staff are essential to an orderly transition from a manual system to a computerized environment. The purchase price of computers is only a small part of your investment. Training and staff time to learn the operation of the systems usually are much more significant costs.

Moving an agency productively from one that operates reasonably well under manual procedures to an agency making productive use of the microcomputer as a tool requires advance planning. Adequate consideration must be made not only of individual needs, but also of the needs of the overall agency. Without advance planning, computer applications may develop in areas inconsistent with agency priorities. High priority areas may go unattended, while lower priority areas consume inordinate time and resources in developing computer-supported applications. "The worst thing is to try to do a little bit of everything. This makes sure that nothing is being accomplished." (Drucker, 1974)

APPROACHES

Computer Needs Assessment

The first step in considering computerization is to conduct a computer needs assessment. A comprehensive needs assessment is a planning tool which helps examine agency priorities, and provides guidance for computer development in the agency. A needs assessments should be conducted by any agency considering computerization to identify development priorities for the administrative and operations functions of the transit agency.

A computer needs assessment includes five basic steps:

1. Identifying tasks;
2. Identifying programs;
3. Comparing tasks to programs;
4. Selecting system elements; and
5. Developing an implementation plan.

Step 1. Identifying Tasks

Before evaluating any task for automation it is important to define it as clearly as possible. The more completely a task can be described, the more accurately the benefits and costs of automating can be assessed, and the more appropriate the solution will be.

Questions asked should clarify whether the tasks include functions suitable for automation, and whether the potential exists for benefits of time-savings, flexibility or increased information. A task analysis generates a detailed description of the task and delineates the steps involved in automating the task itself. Analyzing the level of task repetitiveness helps quantify potential time savings on an annual basis. Finally, ask whether automation will improve the performance of the task by increasing the usefulness and completeness of information generated.

Possible constraints on automation include the interest and abilities of staff who would be involved, the inter-relationships between the tasks, and the forms in which data is input to the program and reported or output by the program. Once tasks have been clearly defined, the potential role of automation can be better understood. The answers to these questions provide a basis for comparison with the programs that are available.

Step 2. Identifying Programs

Having reviewed the agency functions which might be suitable for microcomputer applications, the next step is to look for programs which could fill your needs. The best source of information on a program which is already in use is someone who has used it. Many difficulties with programs may be hard to foresee or seem minor until they occur in the actual application.

There are many sources of information about software. Some of them include:

a. Transit software information services
   There are several transit software information services which can provide useful information and public domain software to agencies. The most prominent are:

   PC-Trans: A service of the University of Kansas Transportation Center. 2011 Learned Hall, Lawrence, Kansas 66045. 913/864-5655. Bulletin board: 913/864-5055.

   Infotap: A service of the University of California at Berkeley, 415/642-4609. Bulletin board: 415/642-7088 (8-N-1).

McTrans: A service of the University of Florida, Federal Highway Administration national support center. 904/392-0378 (no bulletin board).

TIME (Transit Industry Microcomputer Exchange): A service of Vanderbilt University, P.O. Box 1563, Station B, Nashville, TN 37235. 615/322-3435 (no bulletin board).

Transit Bulletin Board: A service of the University of Wisconsin-Milwaukee, 414/963-5785. Bulletin board: 414/963-5235 (7-N-2)

b. Microcomputer consultants

Microcomputer consultants can provide valuable assistance in helping you with software and hardware selection. Generally, they are not tied to a single product, have worked with a number of agencies, and can provide a more objective view of a variety of products. However, microcomputer consultants should be selected just as you select any other consultant, with an eye to precise matching of consultant skills to the transit agency needs. A microcomputer consultant who knows nothing about transit is going to spend a good deal of time learning some of the specifics of transit before being of much help. Secure references from other agencies for whom the firm has provided computer consulting services.

c. Dealers

Dealers can be a good source of information if used very carefully. Solicit information from several dealers, providing them with precise information about the task you expect software and hardware to perform. Request program literature on the hardware and software they recommend for review back at the office.

d. List of Good General Interest Microcomputer Periodicals

Byte. BYTE Publications, 70 Main Street, Peterborough, NH 03458

InfoWorld. Infoworld, 530 Lytton Ave., Suite 303, Palo Alto, CA 94301

PC. PC, 1528 Irving Street, San Francisco, CA 94122

PC World. P.O. Box 51833, Boulder, Colorado, 80321

Step 3: Comparing Tasks to Programs

Once you have identified the range of programs available for the tasks you have in mind, you can obtain a realistic image of what applications are feasible for your operation, and what types of software will be effective.

Program effectiveness. Clarify the benefits a particular program can provide for each task in the form of timesaving, increased flexibility, or more useful information. Develop a clear image of what is reasonable to expect a microcomputer system to contribute to your agency. The most promising applications are identified at this point, and the number of users of the system are identified.

Logistics. Define an effective hardware configuration by identifying who will use the computer, and how much time each person is expected to use it. The next step is to identify the number of machines required. If the machine is expected to be in use more than two-thirds of the time, a second computer or terminal is probably required. Competition between users discourages additional uses of the machine. Another critical factor is the location of the computers. Ideally, they should be located at convenient work stations conducive to productive work. This arrangement allows reference materials and supplies to be accessible to all users. Minimal environmental conditions are required to protect the computer from damage. Fumes and dust may be harmful to the computer, as may extremes of temperature.

Hardware requirements. The primary considerations in selection of hardware include: the central processing unit and keyboard, the monitor, data storage, printers, cables, surge protectors, and computer furniture.

<u>Step 4: Selecting System Elements</u>

It is in this step, when the various pieces of the system are selected, that the future effectiveness of the system in your agency will actually be determined. Five families of selection considerations contribute to choosing and effective group of programs:

Technical considerations are required to select software consistent with the general characteristics and scale of the microcomputer system being considered. If a multi-user system is being considered, or a hard disk will be used for data storage, support for these attributes becomes a selection criterion.

System considerations ensure that the various pieces of software purchased will work together and complement each other. Transferability of data between programs and use of a consistent operating system both contribute to a well-integrated collection of programs.

User considerations may actually be the key to the extent of use of the system, since the staff using the microcomputers are most likely to further their use. Ease of use of the programs, flexibility, good documentation and sources of support, all stimulate exploration of new applications.

Cost of the microcomputer system should be reasonable for the benefits to be obtained. Cost assessments should be reasonable for the benefits to be obtained. Cost assessments should include hardware and software procurement, contracts for consulting and programming services and costs for staff and in-house activities.

Application considerations concern the ability of the program to perform the job required of it and include specific constraints imposed by the operating procedure at each agency.

Step 5: Developing an Implementation Plan

The future success of the system depends significantly on the way in which it is implemented. CAre must be taken to develop staff capabilities and support during the process, and to minimize failures. Issues in system implementation include staff support, training, security, the implementation process, and operating procedures.

The final product of a needs assessment procedure should be a comprehensive report which includes a list of computer application needs in order of priority; recommends an implementation schedule of applications; identifies software necessary to implement those applications; and provides a list of hardware needs. Additionally, the needs assessment report should provide a list of training priorities and recommendations for agency personnel.

Procurement

The procurement process, while tedious and difficult for the uninitiated, pays off for years to come if done correctly. Inadequate specifications for software and hardware to meet the computer needs of the agency may well result in acquisition of products which are inadequate and not only do not contribute to the efficiency of the agency, but actually contributes to its inefficiency by using up valuable staff time without benefit.

There are a few general guidelines to follow in developing your specifications:

- Identify software needs before selecting hardware, and require a guarantee that the software you have selected will run on the hardware proposed by a dealer.

- Investigate a range of software and hardware options before making a decision. While dealers have access to a great deal of information, they tend to have "tunnel vision," focusing only on the products they sell and with which the are the most familiar. Visit with more than one dealer whenever possible to provide a broader viewpoint.

- If you ar in the market for microcomputers and the software to run on them, pick up a few computer magazines and read through them to identify some of the trends in the market. Many of the magazines are not highly technical, and are a good source for news related to the computer industry. You don't want to be struck with a product that is about to be discontinued and unsupported.

- Make sure that training is available on the off-the-shelf software you select (word processing, electronic spreadsheet, database manager). Dealer training is often expensive, and varies a great deal in quality. Often better alternatives are seminars or classes offered at your local community college or university. Looking at these seminar listings often gives you a good clue to the software that is commonly used in your area. This is valuable information when selecting from the hundreds of word processing packages, spreadsheets, and database managers on the market.

- Include strict service availability specifications in the request for bid. Specify immediate proximity whenever possible; or as an alternate, require replacement equipment in any case when equipment is removed from the office for more than 48 hours.

Staffing Training

One of the most commonly overlooked activities when initiating computer-assisted applications is the need for staff orientation and training. Managers initiating the computer-dependent tasks should be sensitive to fears and misunderstanding so often present among staff. Solicit staff input in the needs assessment process, in the procurement process, and finally in the implementation and feedback stages.

Staff who will be working with the computer must have adequate training to insure a smoother transition into use of the computer. Provide more training than just the operations of the specific program. Staff should have an understanding how to use the operating system for file and disk management, know how to recover from errors, and have some understanding of setting up peripherals (printers, modems, etc.)

Management also should be sensitive to training needs over time. As a computer system becomes integrated into the operations of the transit agency, additional staff may need training, or additional training may be needed for staff already trained in the basic areas.

The following is a list of the minimum training to consider for staff, a brief description of the type of information that should be covered, and a list of the type of personnel who should receive the training:

Introduction to Computers (2-4 hours)

For: All staff likely to use the computer.

Orientation to the keyboard, orientation to the parts of the computer and peripherals (disk drives, monitors, surge protectors, cables, printers).

Introduction to DOS (4 hours)

For: All staff likely to use the computer.

Basic DOS and utility commands such as dir, chkdsk, copy, diskcopy, format, mode; directory management such as md , cd , rd ; batch files including use of autoexec.bat.

Word Processing (8 hours)

For: Clerical, other professional staff involved with report writing or grantwriting responsibilities.

Installing the program, creating documents, document set-up (margins, typestyle, etc.), editing, spellchecking, saving, printing, mail merge.

Spreadsheets (8-16 hours)

For: Bookkeeper/accountant, top management staff including operations manager.

Installing and customizing program for system, opening a spreadsheet, moving around in the spreadsheet, text entry, formula entry, commands, functions (mathematical, business, date, other), spreadsheet design.

Database Management (8-16 hours)

For: Depends on selected applications. Most likely operations manager and staff.

Installing and customizing the database, creating a database, modifying database structure, entering data, editing data, displaying data, printing data, developing mailing labels, developing reports, basic database programming.

Specific Transit Applications

Time required depends on selected applications.

For: Depends on application. Most likely operations manager and staff.

Example applications include: transit reporting, route analysis, fare analysis, budget projects.

Accounting Applications

Time depends on accounting package.

For: Accountant, bookkeeper, accounting clerk.

SOFTWARE PROCUREMENT AND DEVELOPMENT

Software selected by your transit agency will depend on a great many factors: integration needs, specific application needs, software use by other agencies with which you are closely affiliated, and local support available. However, there are several general principles to follow when searching for the software that will meet your agency's needs.

1. Software should be sufficiently powerful, yet reasonably ease to use.

2. The company producing the software should have a good reputation for its software upgrade policy, producing good "bug-free" upgrades in pace with the market at a reasonable cost.

3. Software should have the ability to exchange data with other application software you plan to use, particularly among word processing, electronic spreadsheet, database manager, and accounting software.

4. Spreadsheet and database management software should have public domain applications available (templates and programs).

Sample Software Acquisition

While we have stated that specific software can only be determined after conducting an agency needs assessment, there are some software packages that currently represent such widespread use among microcomputer users, that any needs assessment should include an evaluation in the needs assessment process. The following list is not intended as an exclusive endorsement, but they each exhibit very desirable qualities for application in transit agencies.

a. Word processing
Word Perfect (current version (5.0) or Wordstar 5)

b. Spreadsheet
Lotus 1-2-3 Version 2 or Supercalc 4.0

c. Database manager
DBase III+ or clone compatible with DBase III+ (e.g. DBXL)

d. Transit-specific software
A great deal of public domain and proprietary transit software is catalogued through a service by the U.S. Department of Transportation Software and Source Book, a must-have publication for anyone looking for transit software. Free copies of this publication are available by sending a self-addressed gummed label to: Technology Sharing Program (I-30SS), Office of the Assistant Secretary for Governmental Affairs, U.S. Department of Transportation, Washington, D.C. 20590. Major sections are included on Transit Operations Software, Paratransit Planning and Operations, and Transportation Planning.

e. Communications software
Procomm Version 2.4.2 or QModem. Both excellent communication programs and very inexpensive shareware packages. Copies of both are available from PC-TRANS software distribution service (see references on microcomputer information services).

Software Don'ts

Do not select software solely because:

1. Someone on the agency already knows how to use the package. Look at the overall needs of the agency first and select the package on that basis. Putting the preference of one staff member ahead of overall capability may seriously hinder computer development. If the staff member already knows one package, then learning another is usually rapid.

2. The salesman at the local computer store says "you don't really need all those features; the package here on the shelf has all the power you'll ever really need." Determine what your needs are <u>first</u>, then select the software package rather than vice versa.

3. It comes "bundled" with the computer. Remember, the purchase price of software is only a small part of your investment. Training and staff time to learn the package usually are much more significant costs. If you have to switch to different software later because the package you started with does not meet your needs adequately, you have not really saved money.

HARDWARE PROCUREMENT

Hardware needs for transit agencies vary greatly, and may include one or more microcomputers, a mini-computer, and/or a networked system linking the components together. The most common situation for rural and smaller specialized transit systems will be the purchase of one or two microcomputers. It is now a cliche to talk of the rapidly changing marketplace of microcomputer hardware; however, that fact makes it extremely difficult to be entirely confident when purchasing equipment. By following a few general guidelines, you can be confident that your purchase decision was made on the best knowledge available and reduce the risk to your agency. Purchase hardware that:

- Will run the software you have selected;
- Is manufactured by companies with a solid reputation for supporting current owners through upgrades; i.e., those who do not manufacture products lines, only to drop them for a totally new and incompatible line;
- Is compatible with other agencies in the area;
- Is compatible with transit community as a whole; and
- Is selected from a dealer with a reputation with keeping pace with computer industry development, including upgrades.

The following is considered the <u>minimum</u> microcomputer hardware with which a small rural transit agency can function effectively:

> IBM-PC compatible, MS-DOS operating system, 80286 processor (10 mhz minimum), 640k internal ram, 30 megabyte hard disk drive, single 1.2 MB high capacity drive, single 360k capacity floppy disk drive. RGB color monitor with graphics board (EGA-compatible). 1 serial port and 1 parallel port. High speed 24-pin dot matrix printer with near-letter-quality mode.

Since there is a new operating system on the horizon, the OS/2, it is preferable to purchase a machine with both OS/2 capabilities or which could be upgraded to handle this operating system. The equipment meeting these specifications currently is the IBM line of PS/2 computers and other 80386-based machines.

NETWORKING

There are two primary ways in which networking can be valuable: in sharing data and software, and in sharing of peripheral equipment.

Sharing data and software. In some situations several users within the agency may need to share programs or data. In general, with rural and small specialized transit systems, the need for networking is limited enough to require only transferring data on a diskette from one user to another.

Another increasingly common and useful type of networking through sharing software is through communication with national transit bulletin boards. These bulletin boards provide direct access to public domain transit software, and exchange of information among transit professionals around the country.

A full networking system involves direct networking of computers in the system by installing a network card in each machine and cabling the machines together with coaxial cable or twisted wire. One machine functions as a "server" and the other machines function as "workstations." Networking software is installed to allow all users in the network access to software and peripherals throughout the system. Special versions of application software (e.g., database managers) are purchased to allow more than one user access to a database at one time. A good example of this type of application for a demand-response system is scheduling software, with two or more dispatchers requiring access to the scheduling data at one time.

Sharing peripherals. Another useful type of networking is through sharing peripheral equipment, namely printers. This can be accomplished either with a physical arrangement of cables and switches, or by using software to switch control of the peripherals between computers, a relatively simple process.

EXERCISE

Jackson Transit Service is a rural transit agency operating as not-for-profit agency in Jackson County and providing transit services to Jackson County residents. Jackson operates ten vehicles in a county with a population of 30, 000. The population is centered in two primary communities, Jack City with a population of $15,000 and Riverson with a population of 10,000. The remaining population is located in small communities and rural areas throughout the county. Jackson Transit Service is provided with office space by Jackson County in the courthouse and receives funding from the county for operations. JTS also contracts with a number of agencies in the county and receives funding from multiple sources, all of which require reports of project status and expenses.

Because of the large geographic area covered by Jackson County, JTS maintains two bases with a dispatcher in each of the communities. Four vehicles are based in Riverson, with the remaining based in Jack City. The dispatcher in each community is currently responsible for compiling ridership statistics and submitting them to the director located in the office in Jack City. The director, Martha Spears, has been with the agency for two years and is responsible for compiling and submitting reports, vehicle maintenance scheduling, personnel, and other administrative responsibilities. Compiling the reports at the end of the month usually require approximately five to seven days of Martha's time, a chore she would very much like to reduce.

The bookkeeper, Harry Baxter, is also located in Jack City and has been with the transit service since 1976. While somewhat unorthodox in his procedures, he is able to answer all questions related to expenditures and fiscal status of the agency (partially through information he keeps only in his head.) Harry was hired by the previous director who is now on the county commission.

Since Martha assumed responsibilities as director, she has attempted to improve accounting procedures at the agency and has investigated the possibility of initiating standardized accounting procedures. However, Harry has been resistent to her suggestions saying to the effect "if it isn't broken, don't fix it." A recent audit of JTS revealed a number of deficiencies in accounting practices, and the auditor has made a series of recommendations for correction.

One of Martha's board members has just opened a small computer store, ComputerAge, in Jack City carrying a limited line of hardware and some software. The owner has suggested to her the possibility of computerizing some parts of agency operations and administration. ComputerAge is the first computer store in Jack City, with computer purchases in the past made directly with distributors or through computer stores located in Matson, a regional trade center approximately 150 miles away. ComputerAge's owner mentioned the possibility of reducing time in completing her monthly reports, a bit of information which immediately piqued Martha's interest in pursuing the possibility. However, when Harry the bookkeeper heard that Martha was thinking of a computer for the agency, he indicated there was no way he was going to work on any machine to do something he is able to do perfectly well with his books.

Jackson County is using IBM (tm) microcomputers for their accounting functions and tax accounting, acquired through the IBM representative. ComputerAge does not carry IBM products but sells a clone manufactured in Korea. Service is available from the story, but is available by shipping the computer to Los Angeles. In some cases, ComputerAge will provide a loaner computer to use while the computer is being repaired.

Microcomputers
Group Exercises

1. How should Martha go about determining the need for computerization of her agency's functioning? What factors should be considered?

2. Should she use her computer store owner/board member to conduct a needs assessment? What advantages are there in using this individual? What disadvantages?

3. What essential features to be included in computer specifications should Martha decide to acquire a computer for the agency?

4. Given the two locations of the agency and the potential for several applications, do you see a need for networking equipment for Jackson Transit Service? If so, describe a system that would work (local area network modem communication, electronic mail, others).

5. What are potential personnel problems that Martha is likely to encounter should she decide to computerize? How might she deal with them?

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COORDINATION

OBJECTIVES

The training objectives of this session are:

1. To explore the issues involved in the coordination of transportation services;

2. To review the forms of coordination; and

3. To explore the barriers to increased coordination and identify means of overcoming these barriers.

ISSUES

Coordination of public transportation services in rural areas should be pursued for the purpose of realizing more efficient service or more effective service.

Service efficiency is defined as an overall reduction in the average cost of each unit of service provided. In the case of rural public transportation service, therefore, service efficiency could be defined as a reduction in the average cost per trip, average cost per vehicle-mile or average cost per hour of service. The performance indicator used to measure service efficiency is not critical at this stage. The point is, a coordinated rural transit system which results in an increase in the average cost per unit of service with no corresponding improvement in service quality has not benefited anyone.

Service effectiveness is defined as an improvement in the quality of transit service provided. Service effectiveness may be measured by vehicle availability, hours of service provided, number of communities or neighborhoods served or the provision of service to additional user groups.

The issues presented in this section include understanding the significance of coordination, the options available for realizing coordination, potential barriers to coordination and specific options for realizing increased coordination.

FORMS OF COORDINATION

Coordination of public transportation service in rural areas is accomplished incrementally. There are varying degrees of coordination and there are various segments of a transit system in which to realize coordination.

The management of any transportation system can be divided into three basic areas; operations, maintenance and administration. Each of these management areas presents opportunities for coordination and the transit manager must realize that no area has precedence over another. Coordination of maintenance activities is no less significant than coordination of administrative functions, although the latter may appear more glamorous and may provide for "better press". The successful transit manager is able to identify even the smallest coordination opportunities and to implement those opportunities in order to improve either the efficiency or effectiveness of the transit system.

Operational Coordination

The form of coordination most envisioned is in the area of system operations. In this form, vehicles are shared by more than one agency or by more than one specific user group, operational activities, such as routing and scheduling, may be shared by more than one organization or personnel may be shared by more than one organization.

Within the context of a centralized administrative entity for transit services, the transit manager should constantly be pursing other transportation providers for the purpose of assuming their operational functions.

Maintenance Coordination

The coordination of vehicle maintenance functions may vary from a centralized storage facility to the joint purchasing of supplies. Rural and small urban transit systems seldom have the financial resources to afford a centralized maintenance facility and, in most cases, this concept would not be operationally efficient. However, coordination may be realized through the use of a preventive maintenance specialist who assumes responsibility for scheduling and overseeing the maintenance of vehicles belonging to several different agencies.

Administrative Coordination

Administrative coordination may range from a single entity which is responsible for the management of all transit services to an operation clearinghouse which matches transportation needs with available providers. An administrative organization which maximizes the use of public resources should be the goal of all transit policy makers. Examples of administrative activities which may be coordinated include planning, billing and accounting, vehicle acquisition, marketing, grants management, purchasing and training.

BARRIERS TO COORDINATION

There are numerous barriers to coordinating transportation service in rural areas. There are also numerous opportunities for realizing increased coordination in rural areas. By more fully understanding the barriers to coordination, one will be more capable of capitalizing on the opportunities.

Barriers of Perception

Many rural transit managers "believe" or "feel" that coordination cannot be improved in their service area because of personal observations or perceptions. The successful rural transit manager is able to set aside his/her personal biases and also to solicit the input of subordinates or professional peers regarding coordination opportunities.

Potential means of overcoming this barrier include:

- o Obtain an objective evaluation of the opportunities for coordination from professional consultants, state DOT officials or other transit managers;

- o Observe conditions in another transit system to determine coordination activities which may be transferable; or

- o Solicit input from other transportation providers.

Institutional Barriers

While many social service organizations consider transportation a necessary evil, there are an equal number of organizations which consider transportation a fundamental element of their overall program. These organizations are most concerned with the quality of service provided to their clients and tend to be less influenced by financial concerns. As a result, rural transit managers are faced with a situation where the institution itself is a barrier to increased coordination. Rural transit managers may find that marketing their services in terms of service quality rather than cost effectiveness will result in overcoming certain institutional barriers to coordination.

Potential means of overcoming this barrier include:

- o Work closely with representatives of other organizations who provide transportation services to understand the regulatory issues that may be inhibiting coordination; or

- o Institute a marketing program which may encourage other organizations to utilize public transit services.

Political Barriers

The impacts of local political issues can not be underestimated when attempting to implement coordinating activities. City council members, county board of supervisors, state representatives or state senators and even federal representatives and senators may have a vested interest in the operation of an organization with which the rural transit manager is attempting to implement coordination activities. The rural transit manager must identify these individuals at the beginning of the coordination process and must further evaluate the level of influence these individuals may have. The rural transit manager must also be smart enough to recognize the potential political damage he/she may do to themselves or their organization if a battle over coordination is waged.

Potential means of overcoming this barrier include:

- o Communicate regularly with local elected officials, either through personal letters or newsletters, to keep them informed of the transit systems' activities;

- o Compile a list of board members of all organizations with whom the transit system may be attempting coordination activities;

- o Work closely with elected officials at the state level to effectuate legislation which may encourage coordination of transit services at the local level; or

- o Conduct informational meetings with local units of government.

Financial Barriers

One of the more common barriers to increased coordination is the impact of finances. Many non-coordinated transportation providers will argue that coordination will result in an increase in transportation costs and, therefore, will argue vociferously against coordination. In most cases, an increase in transportation costs is not actually an increase at all because the non-coordinated entity is not identifying or appropriately allocating all costs associated with the provision of transportation services. A common example is when a van driver for a sheltered workshop also happens to be the activity supervisor. The workshop management will argue that the supervisor is being paid to supervise and that the time devoted to driving the van should not be a separate expense item. The rural transit manager should be prepared to fully disclose his/her cost allocation plan and be prepared to discuss, in detail, the costs associated with his/her system. Coordination should not be pursued if there will not be an improvement in either the efficiency or effectiveness of the services provided.

Often times these barriers to coordination will surface in combination with one another and the transit manager must be prepared to deal with a multitude of issues. The worst mistake a rural transit manager can make is to think that he/she has the ultimate solution to a transportation problem or to believe that, just because he/she has the title of "Transit Manager" that he/she has all the expertise. Be diplomatic in dealing with non-coordinated transportation providers and be creative enough to build a coordinated transportation service from the ground up. In other words, be prepared to accept the less than ideal solution to a coordination problem in order to reach some solution. For example, if institutional barriers preclude utilization of the transit system's vehicle for service to several user groups propose a joint marketing program to begin the process of eliminating the barriers.

Potential means of overcoming this barrier include:

- o Consider offering financial incentives to organizations in order to "sell" the concept of coordination;

- o Provide a full range of coordination options from which outside organizations may choose. Some of these, such as joint purchasing of vehicles, may not increase costs to the transit system and may decrease costs to the other organizations; or

- o Provide technical assistance to other organizations for the purpose of determining their actual costs of transportation.

EXERCISE

The Beachville Transit System provides general public transportation service throughout an eight county region with special emphasis given to serving the elderly and handicapped residents of the region. The transit system is part of an umbrella organization which provides community planning, job training and economic development assistance to local units of government within the region. The umbrella organization's policy board consists of three elected officials from each of the eight counties.

The Beachville Transit System has a fleet of 18 lift-equipped vans and 12 lift-equipped small buses. The transit system averages 450,000 vehicle miles per year at an average cost of $0.45 per vehicle mile. The transit system contracts annually with the regional Head Start agency to provide all Head Start transportation throughout the region. In addition, the transit system contracts with four different school districts for the provision of special education student transportation to and from the regional community college which is located in an urbanized area served by a large urban transit system.

The Board of Trustees of the community college has expressed concern to the large urban transit system regarding the lack of regularly scheduled service to the college. The large urban transit system counters with low ridership, vehicle availability and trip distances as reasons for not providing service.

The Beachville Transit Manager has been made aware of the issue and is deciding on a course of action. What possibilities do you see for the Beachville Transit System in terms of service coordination? What barriers to coordination, if any, exist? How might they be overcome? What specific actions would you explore?

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FLEET CHARACTERISTICS AND SELECTION

OBJECTIVES

The training objectives of this session are:

1. To determine factors to consider when evaluating cost efficiency of vehicle selection and vehicle safety;

2. To determine appropriate protection for vehicle performance and reliability in bid specifications; and

3. To examine vehicle floor plans and implications for passenger safety.

ISSUES

The rapidly increasing acquisition costs of transit vehicles and the high operations costs dictates that an agency make vehicle selections carefully to insure highest possible levels of safety, satisfactory engine and chassis performance, and overall longer vehicle life. However, most rural transit agencies are required to acquire their vehicles from the lowest bidder, a practice which seems contradictory to our goals.

Further exacerbating the problem of adequate vehicles is the common practice of vehicle acquisition through state bid polls. While group purchasing provides more attractive prices and relieves some of the procurement burden from the provider agency, the agency usually must give up some of the features desirable to meet specific needs.

Providers also report some difficulty in obtaining warranty work in their local areas when the vehicle has not been purchased locally. The general attitude seems to be, at best, one of moving the vehicle to a lower priority in attention. In other cases, dealers have been reluctant to provide service at all on vehicles not purchased locally. Dealers may be even more reluctant if modifications in the electrical system, cooling system, or other mechanical system have been made.

APPROACHES

There are five major steps to vehicle selection which allow the agency to maintain a fleet which meets service needs and at the same time is safe and reliable: (1) determine agency equipment needs, (2) develop vehicle specifications, (3) procure the vehicles, (4) maintain the vehicles, and (5) evaluate the vehicle procurement process.

Determine Agency Equipment Needs

The first step requires an analysis of equipment needs; specifically, determining the size, number, and characteristics of vehicles needed to provide the desired service. Whether you are establishing a fleet for the first time, or simply replacing a worn-out vehicle, an analysis of vehicle need in the current context of operations is important to ensure that the vehicles selected will be able to perform at the desired level and environment.

The number of seats in the vehicle should be about 50 percent greater than the estimated demand, and generally a fleet of the smallest capacity vehicles that can be used provides the greatest flexibility.(1) If larger capacity vehicles are required only rarely, it is generally better to consider two smaller capacity vehicles to meet the additional demand, particularly in a demand-response or taxi-type service. Back-up requirements vary from agency to agency; however, as a general rule, one back-up vehicle is required for the first seven vehicles, 2-3 back-up vehicles for fleets of 8 to 20, and 1 extra vehicle for every ten vehicles thereafter.

The number of vehicles required, like the number of seats, must be calculated based on anticipated peak-hour demand. However, calculations for number of vehicles must be adjusted according to route plans established for the service. For example, if out-of-town medical trips are planned three days a week while still maintaining transportation in the service area, an additional vehicle will be required even though total numbers of passengers may not demand it. The number of vehicles should be estimated by route or by individual service component, while at the same time considering alternative service plans which will provide the service with the minimum number of vehicles.

Another important consideration in determining vehicle needs concerns overall vehicle design. In addition to size, it is important to consider other design features such as need for easy entry into the vehicle for mobility- impaired passengers, weight capacity required, need for lift or ramp equipment, and anticipated ratio of ambulatory passengers to passengers using wheelchairs.

Other vehicle characteristics to be considered are related to the environment in which the vehicle will operate; for example, limited turning radiuses, very hot and very cold climates, steep hills or rough terrain, and long-distance routes or very short routes. Vehicle needs must be considered in light of available maintenance facilities to repair the vehicles, available fuels, and an available labor pool to drive particular vehicles. If the service is operating in an area where very limited diesel fuel is available, or where no diesel engine maintenance facilities are convenient, the transit agency will limit vehicle considerations to gasoline engines. In rural areas, it may be much easier to find van or small transit bus drivers than drivers for a larger transit bus.

Finally, vehicle needs must be tempered with the reality of the budget. Like most family cars, the transit agency may not be able to afford to procure the vehicles it would most like to operate; some compromises will be made.

However, no compromises can be made in design which affects the overall safety of the vehicle.

The vehicle needs assessment process should involve as many people directly involved with the vehicle as possible: the drivers, the maintenance personnel, managers tracking current vehicle performance, other peer agencies, and most importantly, passengers. Convening a series of meetings with representatives of the passenger community, staff members, and other key individuals provides a great deal of information in the process of establishing vehicle need. Whenever possible, the manager should visit other agencies who are operating the types of vehicles under consideration. Discussing advantages and disadvantages of the vehicle, and if possible, reviewing actual operating costs will provide significant planning data.

The types of vehicles most often utilized by rural transit agencies are standard vans, modified vans, body of chassis, and small buses. Standard vans typically seat nine to fifteen passengers and are part of the standard manufacturer production line, available without modification. Vans are easy to obtain, cost less, and are easier to maneuver than other options. However, they are not as durable and have a shorter expected vehicle life than specially-designed transit vehicles. Vans are hard to enter and exit and a lift or ramp impedes traffic to the rear of the vehicle.

Modified vans have been structurally modified to increase the height and in some cases to widen doors and reinforce the sides and roof. Usually, the heavy-duty suspension and brakes are included in a modified package. Modifications to these vehicles are made by a third-party contractor, and if done incorrectly, can result in a vehicle that is structurally unsound. Modified vans should not be purchased in which the sides and roof have not been reinforced with steel since a fiberglass bubble top will provide no structural support to the top of the vehicle in case of a rollover. Modified vans provide significantly improved mobility within the vehicle, particularly when transporting mobility limited individuals. However, gas mileage is likely to be reduced.

Body on chassis vehicles have a larger capacity, usually 12 to 25 passengers and usually consists of a specially-constructed body mounted to a light truck chassis, sometimes with dual rear wheels. The chassis is provided by a light truck manufacturer, with the body constructed by a third-party manufacturer. The purchase of the vehicle is made from that third-party manufacturer. Body on chassis vehicles are more expensive, but generally have a longer life, are more stable, have a great deal more interior maneuvering room, and are easier to enter. In some combinations of bodies and chassis, the ride may be rougher due to stiff suspension.

Small transit buses seat 20 to 31 passengers with a body and chassis both designed specifically for transit service. One supplier manufactures the entire bus, and most have diesel engines. Small transit buses have a much longer vehicle life and smoother ride; however, they are by far the most expensive and are less maneuverable than other options.

Develop Vehicle Specifications

Once the specific vehicle classification and number of vehicles has been determined, the vehicle specifications can be developed. Depending on the state and funding source, there may be local requirements affecting the role the local transit agency may have in writing specifications. Many states have developed specifications for procurement under the Section 18 program; however, most allow the individual transit agency to develop their own specifications if desired. Transit agencies planning to purchase a vehicle under a federal funding program should discuss the options with the appropriate representatives to determine the best procedure.

All states also have regulations regarding procurement when bidding which prohibit limiting competition; specifications may not be written as to exclude a contractor arbitrarily. The vehicle needs assessment process and documentation of that process are key to obtaining the vehicle desired; documentation justifying individual specifications protects the agency from protests of the specifications.

Developing vehicle specifications requires an extreme eye for detail. While it may seem obvious that a particular feature is to be included, it may not be included in the delivered vehicle if it was not specified in the vehicle specifications. The specifications should state minimum, necessary requirements, and must be worded according to the rules of contract law. Use the word "shall" when stating a binding provision. At a minimum, specifications packages should:

- Use familiar words in preference to the unfamiliar;
- Eliminate unnecessary words;
- Use words consistently to reduce ambiguity;
- Avoid words that have double meanings. For example "including" can mean "consisting solely of" or "including but not limited to."
- Includes specific quality assurance provisions;
- Clearly states contractor obligations; and
- Allows some innovation in design.(2)

Using tested vehicle specification packages with a good track record against contractor protests as a guide to developing a package for the agency's needs is a good place to start. As stated earlier, most states have developed a specification package and are willing to share them with the transit agency developing their own package.

Procure Vehicles

Like the specification procedure, procurement procedures will depend on your specific state, local, (and agency) requirements. Most require the Request for Bid packages be distributed to a number of potential contractors, and that a reasonable response time be established. Some areas require that low bid be accepted, while others provide some flexibility in bid evaluations. Requests for bids should include a brief description of the type of service planned and the conditions under which it will operate and vehicle specifications broken down by component parts (e.g., engine, chassis, suspension, heating and cooling, ventilation, floor plan, emergency exits, special equipment, etc.). In addition, the package should include requirements for warranty, service availability, and quality assurance requirements.

Maintain Vehicles

While maintaining the vehicles may not appear to be directly a part of the vehicle selection process, it is very directly related. Vehicle selection decisions are made on the basis of certain assumptions regarding vehicle performance and vehicle life. Failure to maintain the vehicles properly and to document the maintenance circumvents the planning process. First, the vehicles do not last as long as anticipated. Replacement decisions must be made sooner than expected and budgeted accordingly.

Second, lack of adequate documentation of maintenance will prevent the agency from claiming repairs that should have been obtained in warranty, or to justify a claim for compensation for off-warranty problems (e.g., a repetitive problem throughout warranty that finally malfunctions once the vehicle is off warranty.

Finally, lack of maintenance documentation prevents the agency from using vehicle performance data on which to base the decision for future vehicle purchases. It is important to establish a preventive maintenance plan, usually every three or four thousand miles, adhere to the schedule, and document the process throughout.

Evaluate Vehicle Procurement

The entire vehicle procurement process should be documented and reviewed periodically to answer the following questions:

- o Was the vehicle satisfactory?
- o Is the vehicle performing up to expectations? If not, what are the problems?
- o What was overlooked in the specification package that should have been included? How could it have been remedied?
- o Is the service from the contractor satisfactory? Have there been any unresolved problems?

By evaluating and documenting the process immediately after procuring the vehicle, and periodically throughout the life of the vehicle, additional information is available for the planning process. If a contractor does not comply with the terms of the bid, the agency must have documentation, both to secure settlement of the existing complaint and to be able to avoid doing business with that contractor in the future if necessary.

EXERCISE

The Greater Peninsula Regional Transit Authority provides transportation services throughout the Greater Peninsula area, an area of approximately 900 square miles. Greater Peninsula provides fixed route with twenty vehicles all of which are gasoline-powered, and most of which are 22-passenger body-on-chassis type vehicles. Three vehicles are modified 15-passenger raised-roof vans. Six of the vehicles are lift-equipped to provide transportation to disabled passengers.

The State Department of Transportation provides procurement services for its Section 18 and Section 16(b)(2) grantees; however, DOT has recently changed its regulations to allow grantees to write specifications and procure their own vehicles if desired.

Two vehicles acquired in 1985 under a state bid were built by a firm which has since gone out of business; however, the owner of the firm has opened a firm under another name. In the three years since acquisition of the vehicles, Greater Peninsula has encountered significant problems with the vehicle body but has had no success in obtaining acceptable repair work under warranty. David Harrod, director of Greater Peninsula, has informed the DOT of their problems and has reported the company of the state attorney general's office.

Greater Peninsula is preparing to replace four vehicles this year; three 22-passenger vehicles, and one 15-passenger van. Because of a recent severe injury accident with a similar vehicle in neighboring Horatio County, several board members have suggested investigating alternative vehicles to reduce the possibility of accidents and liability. Because Greater Peninsula vehicles transport a relatively high number of persons using wheelchairs, the board is particularly concerned with selecting vehicles with a floor plan which provides most flexibility in exit opportunities without sacrificing integrity of the vehicle. Initial investigations with the State DOT indicate that costs for alternative vehicles will be approximately 30-50 percent higher than the current vehicles used by Greater Peninsula.

Fleet Characteristics and Selection
Group Exercise

1. What factors does John need to consider in deciding upon appropriate replacement vehicles for Greater Peninsula? How can he best obtain this information?

2. How can John best protect the agency from warranty problems with modified vehicles in the future? What steps can he take to avoid a similar problem in the future? Do these steps have any negative implications for the agency?

3. What recommendations would you make to John for floor plan and emergency exists in his vehicles? Why?

ENDNOTES

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MAINTENANCE MANAGEMENT FOR RURAL TRANSIT SYSTEMS

OBJECTIVES

The training objectives of this session are:

1. To examine key considerations in-house versus contracted maintenance;
2. To specify appropriate role of drivers in maintenance management; and
3. To examine key factors in determining appropriate ratio of preventive maintenance to breakdown maintenance.

ISSUES

Quality of service and efficient delivery are two of the most important goals of a rural or specialized transportation program. When planning a system, managers often think first of the vehicles needed and the route they will travel, and the times they will arrive. However, without a comprehensive equipment maintenance management program in place, it is unlikely that an agency can achieve goals of service quality and efficiency, or even that the vehicles will be able to meet those plans for routes and arrival times since it is more likely that the vehicle will be broken down along side of the road.

Quality of service includes safety of passengers, drivers, and other drivers on the road and reliability of the system. It is no surprise that faulty, poorly maintained equipment represents a threat to the safety of riders. Faulty brakes, inadequate suspension, worn tires, or unreliable specialized equipment represents a hazard to passengers, and a liability risk to the agency. Properly maintained equipment, and a system to document the precautions that have been taken, are absolute musts if an agency is to ensure passenger safety.

The other "quality of service" component is system reliability. Maintenance problems quickly turn a successfully, well-patronized system into failure. Patrons will cease to utilize a system if vehicles do not arrive when expected. Only a maintenance program which anticipates most problems before they occur and provides for an adequate spare ratio can prevent loss of ridership caused by unreliable service.

The second major justification for a comprehensive vehicle maintenance program is the cost savings it will provide to the agency. Good vehicle maintenance will extend vehicle life, reduce major repair costs, and reduce costs associated with accidents caused by poor vehicle performance. It is also possible that a well-documented vehicle maintenance will impact determination of insurability with insurance companies.

Vehicle maintenance records provide the program manager with the information required to make a decision about when a vehicle is costing too much in repairs due to age, or when a driver is mistreating a vehicle costing the agency additional money. Vehicle maintenance records which are assembled in an easily-interpreted form will help chart a clear course for administrative decision-making.

APPROACHES

Availability of maintenance information provides for sound management decision-making. A comprehensive maintenance management program provides information on actual and projected work loads, expected component failures, cost-benefit ratios of replacement versus repair, scheduling modifications due to equipment break-downs, optimum spare ratios, etc. Information resulting from the maintenance information system provides justification for maintenance budgeting, staffing decisions, parameters for potential cooperative agreements with other providers in the area, or vehicle replacement.

Defining Equipment Maintenance Management

Equipment maintenance management includes more than just scheduling oil changes and tire rotations. Equipment maintenance management includes all aspects of insuring safe and reliable operating condition of fleet vehicles, minimizing road calls, and maximizing equipment life. A true management system includes establishing equipment performance goals and standards based on criteria established for quality of service and safety. Equipment performance goals and standards will have an impact not only on maintenance scheduling decisions, but also on vehicle selection, vehicle retention and replacement policies, service levels, and personnel policies.

Developing a maintenance management system requires examining maintenance within the overall framework of organizational goals and objectives. Maintenance policies must be congruent with overall organizational goals and support attainment of those goals. One maintenance plan cannot be developed that will be appropriate for all rural agencies; however, it is possible to develop the framework from which to make the choice for maintenance design. The following sections will attempt to provide that framework.

There are four major management philosophies in an equipment maintenance program: (1) condition-based maintenance, (2) fixed-mileage maintenance, (3) operate-until-failure maintenance, and (4) design-out maintenance.[1] Condition-based maintenance relies on monitoring of component conditions to predict approaching failures, such as brake shoes, clutch components, or transmissions. Maintenance needs are diagnosed through inspections or trend monitoring before becoming inoperable and are repaired just before failure. The advantage of this technique is that breakdowns are minimized and maximum useful life is obtained from the component.

Fixed-mileage maintenance involves conducting maintenance at regular mileage intervals. This management approach is utilized with components in which there is a reasonably well-know relationship between component failure and mileage traveled. Typically, oil changes and oil filters are included in this category. Some transit agencies may use this approach with components in which the relationship is not so well-known, however, the advantage of having maintenance on the piece of equipment completed during a specific inspection is preferable to taking the vehicle out of service as the individual component parts fail.

A variation of this approach is fixed-time maintenance, where an agency develops a maintenance schedule based on a particular time interval, e.g., 30 or 60 days. This interval is usually selected after first determining the average mileage placed on the vehicles during specific intervals and then attempting ton match the time schedule to an appropriate mileage interval. An advantage to the time-interval approach is the greatest possible control over maintenance scheduling, scheduling precise time frames for each vehicle for regular and routine maintenance.

The fixed-mileage or fixed-interval approach is particularly advantageous in rural areas where maintenance facilities may not be readily available, where maintenance staff are limited, are when costs of unscheduled repair outstrip the cost of premature replacement of a part. However, fixed-mileage maintenance tends to be more expensive than condition-based maintenance since the maximum use of a component probably is not obtained.

<u>Operate-until failure maintenance</u> is a maintenance program based on corrective rather than preventive actions. In practice operate-until failure maintenance is usually the most cost-effective if used for those components for which there is no relationship between mileage and failure or for which progressive deterioration of the part cannot be monitored. The disadvantage of this method is lack of predictability for service calls and a potential for in-service failures.

<u>Design-out maintenance</u> is the fourth and final potential maintenance approach and is reserved for components that exhibit persistent long-term maintenance problems. In case a vehicle has been designed either with a flaw or is unable to perform adequately in existing operating conditions, it may be necessary to modify either the component itself or the overall system. In some cases, manufacturers provide these modifications particularly when the problem is the result of a design flaw. In other cases, third-party manufacturers or local maintenance personnel may provide the modification or alternative solution.

Design-out maintenance is best utilized on an ad hoc basis depending on specific circumstances. Selection of this alternative should be based on a cost-benefit analysis of persistent maintenance problems (including actual maintenance costs, vehicle downtime, and passenger safety) against cost of redesign.

Each of the above maintenance approaches have a place in the overall maintenance management plan. However, one approach is likely to be the dominant mode of operation for one particular agency.

<u>Components of a Comprehensive Maintenance Management Program</u>

There are three major components of a maintenance management program: equipment and facilities management, preventive maintenance, and repair management (both emergency and routine maintenance). Each of the three components have their own set of standard operating procedures and are interrelated to each of the other two. Management decisions made in one area will effect management of the other two. For example, a decision to increase frequency of brake inspections on your fleet likely will reduce the number of brake failures brought in for replacement or repair. Road call rates will go down and brake work is shifted entirely to the preventive maintenance function. Further, equipment and personnel must be available to handle the increased inspection rate, as well as an adequate number of back-up vehicles to handle the increased preventive maintenance scheduling.

Managing the three components requires performance of several management tasks grouped around three major functional areas: maintenance planning, maintenance implementation, and maintenance evaluation. The three functional areas related cyclically to one another; that is , each are on-going processes since evaluation provides information to the maintenance manager to adjust the program to meet changing needs of the agency and the equipment management function. The feedback gleaned from the evaluation process provides input for renewed planning.

Identify Agency Maintenance Needs

The first step in developing a maintenance management program is to determine what maintenance program design is most compatible with overall agency goals and operations. A full-service maintenance shop which does everything from performing engine overhauls to replacing broken tail lights probably does not make sense for a one- or two-vehicle fleet. Conversely, a cost-benefit analysis may show that contracting out all maintenance for a ten-vehicle fleet is more costly than establishing in-house maintenance capabilities. No matter what the size of the transportation program, maintenance planning must be fully integrated into overall organizational planning. The goal is optimize performance by determining what maintenance functions should be performed in-house and by whom, as well as determining those maintenance functions that can be contracted.

The maintenance planning process is an integral part of strategic planning of the agency, follows basic planning cycle in which needs are identified in the context of overall organizational mission, alternatives are developed and selected to meet those needs. The program is monitored for implementation with outcomes evaluated to provide input for modifying the program to improve results. A diagram of this maintenance planning process in provided in Figure XV-1.

Identify Organizational Objectives to Meet Maintenance Needs

Establishing maintenance program goals and objectives requires consideration first of the environment in which the maintenance program will operate: both the goals and objectives of the agency, and the regulatory environment in which the agency operates. Organizational goals are the broad targets toward which the organization is working. Organizational objectives are statements which define the steps by which the organization can meet the goals. Sometimes the goals and objectives are written; other times they are unwritten, but generally understood by the board and top administration. The central characteristics of the organizational goals are that they be clear and concise, measurable, and attained with reasonable effort.

I.
Identify
organizational
objectives

II.
Identify maintenance
needs and problems

III.
Identify maintenance
alternatives

IV.
Select
maintenance
approach to
address needs and problems

V.
Develop maintenance
action plan

VI.
Implement maintenance
action plan

VII.
Monitor implementation
of maintenance plan

VIII.
Evaluate maintenance results

Figure XV-1. The Maintenance Planning Process

The organizational goals and objectives should be examined for constraints or conditions they might place on maintenance design. For example, a goal of a transit agency (and regulatory requirement) might be to increase utilization of existing private-sector resources in the community.

A goal of privatization within an agency would indicate particular emphasis on utilization of existing maintenance facilities in the community, rather than establishing in-house maintenance capacity. Just because the agency has established privatization as a goal does not preclude consideration of developing in-house capabilities, however. It means only that somewhat greater weight should be placed on those maintenance alternative.

Another example of the relationship of agency objectives to maintenance planning is in capital equipment. An agency objective might be to maintain a constant level of equipment replacement based on priority of greatest cost-benefit to the agency. The maintenance management program which optimizes vehicle life at the least possible cost is a desirable objective for any program.

You may want to develop an in-house task force made up of key staff and board members to provide an overall agency perspective of the relationship of the maintenance function to agency goals and objectives.

You can do this by reviewing organizational documents such as agency mission statements, by-laws and board minutes to identify specific objectives. If objectives are not specified in written documentation, use the task force to help identify these objectives. Once the objectives are listed you can identify implications these objectives might have on the maintenance function:

EXERCISE

Harrisville Rural Transit Services prides itself in its progressive management practices in nearly all areas. In business for the past fifteen years, Harrisville RTS has initiated a number of innovative projects in vehicle procurement, driver training, and rider amenities. One area in which agency director Margaret Jones has been dissatisfied with the vehicle maintenance program.

Harrisville RTS operates twenty vehicles in regular service Monday through Friday. Because of their relatively remote location and the specialized nature of the agency vehicles with modified bodies, custom air conditioning units, lifts, and a custom electrical system, local dealers have been reluctant to provide service on anything but engine and chassis. The nearest shop available for the specialized work is located approximately one-hundred sixty miles away. Vehicles are taken out-of-service up to several days when body, electrical equipment, or lift service is required. Harrisville RTS has been able to negotiate excellent arrangements with two local garages to provide routine maintenance services including oil changes, engine tune-ups, lube jobs, front-end alignments, and wheel rotation and balancing. Major engine work has been provided satisfactorily by the local dealership, even though hourly rates are very expensive.

Vehicles are scheduled by the Operations Manager for a preventive maintenance inspection and oil change once every 45 days. Drivers are asked to report any unusual incidence or vehicle malfunctions to the operations manager as they occur.

A Harrisville RTS board member is retired from the maintenance division of a major farm implement corporation, and has suggested to Margaret the possibility of investigating establishing a maintenance facility which would handle all preventive maintenance activities and engine work exclusive of engine rebuilds. The board member has also suggested establishing capability for lift maintenance and a body shop for fiberglass work. Other board members believe that the maintenance facility would represent too great a investment and would compete unfairly with garages in town.

1. What steps should Margaret take to evaluate feasibility of establishing a maintenance facility? How can she best estimate facility costs, equipment costs, personnel costs, and administrative costs?

2. What are the costs of competing with local private maintenance facilities? To the agency? To the community? Are there others who might be affected by removing this business? Does this move have implications under the UMTA Private Enterprise Policy?

3. If building an in-house maintenance facility proves not to be feasible, are there intermediate strategies the agency might take to reduce maintenance cost and reduce out-of-service time? If so, what are they?

4. Describe a plan which would involve drivers to a greater degree in vehicle maintenance of Harrisville RTS.

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PRICING

OBJECTIVES

The training objectives of this session are:

1. To review the issues which impact pricing policies;

2. To provide an understanding of the relationship between pricing policies and pricing objectives;

3. To review traditional pricing methods; and

4. To provide suggestions for improving pricing methods.

ISSUES

Today's rural transit manager cannot afford to manage his/her system with a narrow focus. The reduction of federal financial support for public transit, budgetary constraints of many local units of government and the increased costs of operating public transit service make it imperative that the rural transit manager develop pricing policies which will ensure the long term financial viability of his/her system.

Additional reasons for this increased emphasis on financial management include:

- The increasing demands placed on rural transit systems for the provision of quality service to a larger number and more varied number of users;

- The loss of federal revenue sharing funds to local units of governments, a traditional source of local funds for rural public transit; and

- The increased sensitivity of the average taxpayer towards all publicly funded services.

One of the unique qualities of rural public transit is that it is both a business and a service. As the business side receives increased emphasis, it is necessary for the rural public transit manager to more fully understand the business side of the operation. The primary difference between the private sector and the public sector can be summarized as follows: The private sector attempts to maximize profits while the public sector attempts to minimize losses and maximize service. This section will provide the rural transit manager with a greater understanding of the revenue side of the profit/loss equation as it relates to the operation of a rural public transit system.

This section will address the major issues of pricing policies and objectives, billing rates, fare collection and full cost recovery.

PRICING POLICIES

The development of pricing policies should involve all parties concerned with the system's operations, including management personnel, local elected officials, representatives of special user groups and members of the general public. These policies should be general in nature but should provide the basis for determining specific price/fare structures. Pricing policies may include:

- Affordable transportation for senior citizens or handicapped residents of the service area;
- Provide reduced cost transportation for critical trip purposes;
- Establish a funding partnership for the long-term financial stability of the transit system;
- Reduce dependence on the private automobile; and
- Enhance public transit's interaction with community development projects.

The development of pricing policies should be conducted with the understanding that rural public transit systems have unique constituent groups and a unique purpose to accomplish. As such, the transit manager should incorporate the following issues into the pricing policy development.

User Groups

Many rural transit systems have their origins in social service organizations which served either the elderly or handicapped residents of the service area. While rural transit systems have experienced ridership and the service has expanded to include all residents, these special user groups remain an integral part of the system's operation. These user groups traditionally consist of individuals who have less ability to afford transportation than do other segments of society. Also, these user groups may have unique perspectives on the transit system. The rural transit manager should make special efforts to involve representatives of these user groups in the development of pricing policies.

Public Input/Acceptance

The rural transit manager should encourage the involvement of the general public in the development of pricing policies. Not only do members of the general public utilize the transit system, but they also help finance the service through property or other forms of taxation. The image of the rural transit system is critical in terms of securing funding and fair and reasonable prices/fares will aid in achieving that image. Public input regarding pricing policy may not be overwhelming, but the rural transit manager should not overlook the expertise which may be forthcoming if opportunities are presented.

Partnerships

The future of public transit is dependent on the formulation of funding partnerships involving riders, city and county government, state governments and the federal government. Each funding source should participate at a level equal to the benefits derived. Traditional pricing policies have placed too heavy a burden on certain funding sources and have ignored the partnership concept. The rural transit manager, in conjunction with public input, will be able to determine the partnership levels appropriate for his/her area. For example, a transit system in a relatively high income area may determine that passengers should be expected to provide 50% of the costs of service, with local subsidies covering the remaining 50%. A transit system located in a poor area may have to rely less on passenger revenue and local subsidies and may have to obtain additional state and/or federal assistance in order to financially survive.

PRICING OBJECTIVES

Once the transit manager has developed the policies which will govern the establishment of prices/fares for his/her transit system, it is necessary to develop specific objectives. The same issues which govern the development of pricing policies should also be considered in the establishment of pricing objectives. The transit manager should combine the aforementioned issues with the knowledge he/she has regarding the system's day-to-day operations. Such data as ridership projections, capital replacement needs, the financial conditions of local governments and operating cost projections should all be included in the development of pricing objectives. In addition, the transit manager should consider the following issues in the development of pricing objectives.

Regulations

The State of Michigan, for example, requires the charging of half fares for senior citizens and handicapped individuals during off-peak hours. Recipients of Title IIIB Funds from the Older Americans Act are not allowed to charge a fare but, rather, are allowed to accept a suggested contribution. In order to generate as much revenue as possible given this restraint, the transit manager may include information on-board the vehicle which explains the full cost of providing service. Another possibility involves the establishment of suggested contribution rates based on income levels. These are but two examples of regulatory issues which will impact the establishment of specific pricing policies and should be thoroughly investigated by the transit manager.

Service Levels

The establishment of pricing objectives must be conducted within the context of both financial stability and service quality. The rural transit manager must define the long range goals of the transit system relative to service area, service frequency and service quality in order to make reasonable decisions regarding pricing objectives. The rural transit manager must view pricing objectives as a means of maintaining or achieving a certain level of service.

Objectives

With the aforementioned guidelines in mind, specific pricing objectives may include:

- Achieve a farebox cost-recovery ratio of 30%;
- Total operating revenue should equal 50% of total system revenue;
- Contract revenue should equal 110% of contract service costs;
- Fares for special user groups should be 50% of fares for general public riders;
- Fares for essential trip purposes (i.e., medical) should be 75% of fares for non-essential trip purposes;
- Contracted services should not be subsidized by local, state or federal funds; or
- Total system revenue should cover 60% of total system costs.

Once the transit manager has implemented a series of pricing objectives, it is critical that he/she monitor the impacts of these policies closely in order to determine if they are accomplishing the desired results.

Determining Prices/Fares

Once the pricing policies and objectives have been established for the rural transit system it is necessary to translate them into a tangible price/fare structure. In order to accomplish this task, however, the transit manager must have accurate and current data regarding operating costs and revenues, total ridership, total hours of service provided and total miles of service provided. For new service elements, the transit manager will have to rely on projections.

Specific prices may be established for one of three billing procedures; per one-way trip, per hour of service provided or per mile of service provided. Each is applicable to a specific situation and each has its pros and cons.

Per Trip Billing Rate

The price a transit manager should charge for each passenger trip is calculated by dividing either the projected or actual service costs by the number of one-way trips provided by that service. The primary detriment to this pricing scheme is that trip distance is not reflected and, therefore, longer trips are being subsidized. The major advantage to this pricing scheme is the ease of billing and collection.

For service provided to the general public, there are several forms which the per trip fare structure may take. It should be noted that full cost recovery is impractical in the context of general public transit service.

- Zone based fares attempt to incorporate trip distance and trip time into the pricing equation. Traditionally, the system's service area is divided into a specific set of geographic areas or zones and fares are determined for trips between each of the zones.

- Flat fares do not discriminate based on trip distance or trip time. Each passenger pays the same fare regardless of origin or destination and shorter distance trips tend to subsidize trips of greater distances.

Per Hour Billing Rate

The hourly rate structure is determine by dividing the total service costs by the number of vehicle hours devoted to that service times the hourly utilization ratio. The primary detriment to this pricing scheme is the level of data collection necessary, particularly for systems where numerous client groups are utilizing the vehicle simultaneously.

Per Mile Billing Rate

The per mile rate structure is determined by dividing the total service costs by the number of vehicle miles devoted to that service times the mileage utilization ratio. This concept is similar to the per hour rate structure in that extensive data collection is required again, particularly where systems transport numerous client groups simultaneously.

Each of these billing procedures is applicable to full cost recovery from contracting agencies. In a transit system where different clientele are utilizing the same vehicle, ease of data collection becomes the critical issue. Utilization of the per trip billing rate simply requires a counting of passenger trips for each client group. The per hour and per mile billing rates require an accounting system which records the number of vehicle miles or vehicle hours each client group receives. This information is more difficult, time-consuming and costly for drivers to collect.

Fare Collection

One of the more critical issues in the area of pricing and fares is how to completely account for all fares collected. The traditional fare collection process involves assembling all vehicles in a central location where fareboxes are unlocked and the fares are counted on a daily basis. For many rural and small urban systems, fareboxes are non-existent and travel distance precludes the assemblage of vehicles in central locations. These systems may consider the following as possible solutions to their problem.

- Place fareboxes in all vehicles and have a management representative collect the fares on a regular basis.

- Establish sub-regional depositories, such as a bank, where farebox revenue can be deposited by the drivers.

- Sell trip tickets from one or several locations which are then used instead of money.

- Make sure all vehicle operators are bonded.

EXERCISE

At a recent Board of Directors meeting, the Oak County Transit Manager reported that the Corridor 34 Route was operating at a deficit. This route provides service to clients of a sheltered workshop, head start school students and members of the general public. Service to the sheltered workshop and the head start school is provided on a per mile contractual basis, with service to the general public provided on a flat fare basis.

The transit manager reported that operating costs for the first 6 months of the year totaled $18,276 and farebox and contract revenue totaled $12,698. The transit manager further reported that the sheltered workshop was being billed at $0.60/mile, the head start school was billed at $0.46/mile and the one-way fare for general public riders was $0.50. The transit manager further reported that the actual cost of service was $0.76/mile for the sheltered workshop and $0.69/mile for the head start service. Costs for the general public service were $1.47 per one-way trip.

Several board members questioned these operating deficits, particularly those of the contracted services. Specific issues raised included:

- Barriers to increasing contracted rates;
- Full-cost recovery for the general public service as well as the contracted services; and
- Impacts of ridership statistics on state and/or federal operating assistance.

Provide a response to each of these issues based on the information contained in this section.

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MARKETING TRANSPORTATION PROGRAMS (1)

OBJECTIVES

The training objectives of this session are:

1. To develop a familiarity with marketing terms and concepts;
2. To provide a system for developing a marketing plan; and
3. To generate new ideas to help promote transit systems.

ISSUES

The ultimate measure of success for a rural or specialized transportation system is whether residents of the service area are being provided the amount and types of transportation service they desire. In order to effectively provide such transportation service and, in turn, ensure the success of the program, it is necessary for planners and providers of nonurbanized area public transportation systems to keep fully abreast of the changing travel needs and desire of the traveling public. This can be accomplished by means of an effective marketing program. Most people think marketing is only advertising. As shown in Figure XVII-1, marketing is research, service development, customer services and promotion. (2)

The basic requirement of marketing is to determine what services will meet the transportation needs of existing and potential riders. This section provides a detailed framework for formulating and implementing a marketing program for a nonurbanized area public transportation system.

DEVELOPING A MARKETING PROGRAM

Transportation Marketing Planning

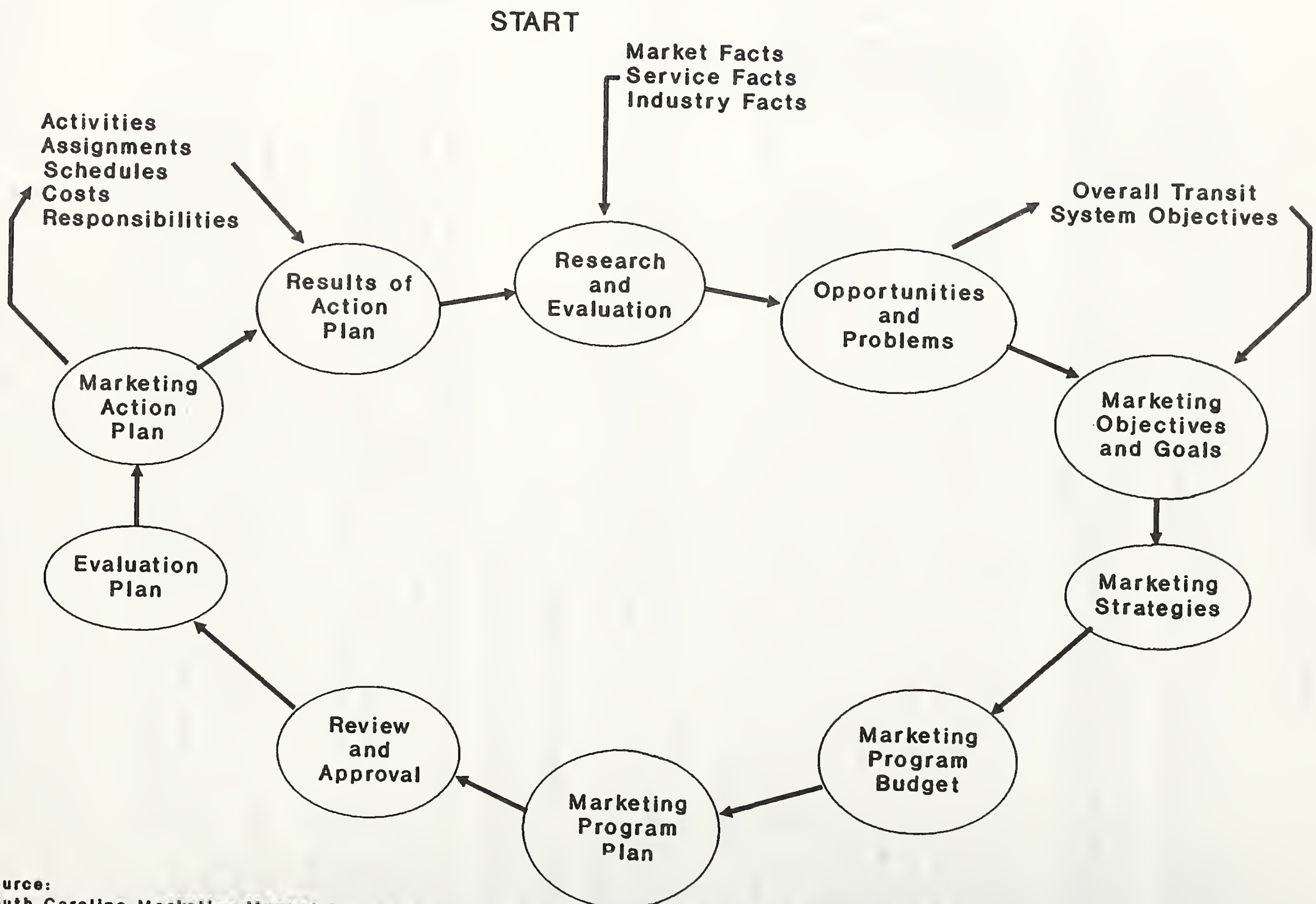
The initial step in the development of a marketing program is the establishment of program is the establishment of program objectives and targets which should be quantifiable and short-term in nature. They can serve as a benchmark and allow the operation of a rural or specialized transportation system to measure the success of the marketing program and also to focus on projects which are most desirable.

The transportation marketing manager should employ a systematic approach to planning. The approach must provide a strong degree of structure to insure that marketing activities are well coordinated; that the marketing program is entirely consistent with overall system objectives; and that the marketing effort is monitored and evaluated with useful results being fed back into the overall planning process in general, and the future marketing program in particular.

The planning approach has five primary parts:

- A presentation of marketing problems and opportunities resulting from the research and evaluation of the existing system and programs;

Figure XVII-1. The Transit Marketing Planning Cycle



Source:
South Carolina Marketing Manual Prepared for Office of Governor, Division of Economic Development and Transportation by Carter, Goble, Roberts, September, 1980, US DOT Technology Sharing: DOT-I-84-18.

- A statement of the specific goals of the marketing program based on the problems and opportunities identified and consistent with organizational objectives;

- A presentation of specific strategies for achieving the marketing goals;

- A description of the resource requirements (time, people, and money) necessary to implement the selected strategies and achieve the marketing goals; and

- An action plan.

A goal is a broad statement of long-time purpose, while an objective is a specific statement of short-term achievement. An organization will rarely have more than one goal in a given functional area, but will always have objectives. A goal will change very slowly, in an evolutionary manner; objectives change regularly and rarely survive for more than a year or two. A target is a specific approach to the accomplishment of an objective. In the context of a transit system, the context of a transit system, the three terms may be illustrated by the following examples:

- Transportation Goal: Provide safe, reliable transportation services to all people in XYZ county at the lowest possible cost.

- Marketing Objective: Increase off-peak ridership by 20 percent in the coming year.

  - Operate at 90% on-time service during peak hours
  - Reduce headways on Route A to meet customer demands;
  - Increase monthly pass sales by 10%

- Marketing Target No. 1: Through the development of a vanpool program, improve by 15 percent the utilization of public transit by working adults.

Once the need for program objectives has been realized, it is necessary to engage in certain activities which will actually result in their determination. Several methods exist for deriving marketing objectives including:

- Subject determinations based upon the system design;

- Analysis of questionnaires (this topic is discussed further in the market research section);

- Analysis of existing service problems; and

- Market research

Financial and schedule constraints will definitely dictate the amount of effort which is devoted to the marketing program. The important thing, however, is that a marketing activity is undertaken. The development of program objectives is the first step of this process.

Market Research and Evaluation

Effective marketing begins with an analysis of the market to identify new market opportunities within the service area. Research, evaluation, and monitoring provide an ongoing inventory of all the factors that constitute the transit system's current marketing situation. It is also an analysis of the factors that caused the situation to develop. A comprehensive system review is an invaluable tool for determining ways to identify a transportation system's weaknesses (see strategic plan section for review). A comprehensive review will ascertain strengths and weaknesses and point to ways to augment strengths and eliminate weaknesses. Finally, a comprehensive review will identify the probable effects on the transit system's marketing program of conditions likely to arise in the future.

Every relevant, ascertainable fact about the transit system -- services, sales, programs, markets and users, etc. -- should be assembled. Much of this information will already exist in the system records, be collected by market research studies, surveys, or readily attainable through general sources. In any case, the greater part of the effort required is a one-time occurrence because research can be subsequently updated with relative ease once constant evaluation and monitoring procedures are established.

The following list, although by no means definitive, indicates the types of information that will be required for the decision-making process involved in establishing marketing goals and objectives.

- What has been the system's record on service reliability and timeliness? By route? By market segment?
- What has been the system's safety record? By route? By market segment?
- What is the physical appearance of the fleet?
- Are the system's fares structured to encourage increase ridership?
- Are special and promotional fare structures effective in the target market segments?
- Are the drivers and telephone-information personnel market-oriented?
- What are the system's revenues? By months? By days of the week? By market area? By customer classes? By times of the day? Per capita? By Routes? By special services?
- What are the expenses and profits of the system? By routes? By market areas? By customer class? By months, day, time of day?

- What are the major results of the system's market research analyses? By market trends? By market segments?

- What types of service development projects have resulted in substantial and lasting increases in ridership for the system? What types have failed?

- What have been the results of the system's advertising and promotion program? By reader/viewer/listener impressions? By size/length/frequency schedule of ad units? By ridership increases?

- What type of customer service activities have had success in improving ridership? What types have failed?

- Who are the current customers of the system? By location? By income level? By age? By occupation? By size of family? By race?

- Who are the most promising potential customers of the system? By location? By income level? by age? By occupation? by size of family? By race?

- What factors most influence the decisions to use or not use the transit system's services? Convenience? Cost? No other choices?

- What is the average daily, weekly, monthly, and yearly amount expended by system customers? By customer class? By market?

- What are the attitudes of the customers toward the system? Toward the specific services?

- What events in process, or likely to occur, will influence the level of ridership?

- What is the market share of the system, versus competitive modes, for specific customer classes? In terms of passenger miles? In terms of numbers of passengers?

<u>Methods of Conducting Market Research</u>

The primary tools for conducting market research are surveys: employer, employee, or on-board. While there are other types of research surveys telephone, mail, etc., these surveys -- employer, employee and on-board-- provide the data which is most useful to analyzed the nonurbanized area transit market. The most obvious potential problem of a survey is that respondents will often overexaggerate their demand for public transportation service. This factor must be kept in mind when evaluating and analyzing survey results.

The basic questions which must be answered before you conduct any research are:

1. What do I want to know?
2. Who do I want to know it from?

3. What will I do once I know it?
4. Who will do the research?
5. What will it cost to find out what I want to know and is it worth it? (3)

1. Employer Surveys - This type of survey is administered to local employers throughout the service area. The conduct of this survey is usually done on a personal interview basis. The types of information collected include:

- o Place and name of business;
- o Type of business;
- o Number of employees;
- o Normal working hours;
- o If more than one shift, the hours and number of employees on each shift
- o Type of public transportation (if any) presently serving the location;
- o Number of employees who presently drive, walk, and use public transit to get to work;
- o Number of parking spaces available at the site, their location, and cost (if any);
- o The importance of transportation in hiring and retaining employees;
- o Expected change in total number of employees;
- o Would the employer assist in conducting an employee survey; and
- o General thoughts regarding public transportation.

The location of employers located within the service area many be obtained from local or regional planning agencies. These agencies may also have employment data which can be utilized in conducting an employee survey.

2. Employee Surveys: This type of survey is administered to employees of various employment centers within the service area in cooperation with the employer. The survey can either be mailed to each employee or distributed to each employee at the work site. The latter option is easier because the only prior information needed is the total number of employees rather than the names and addresses of each employee. The types of information collected through employee surveys includes:

- o Employee status;
- o Time of arrival and departure;

- Place of residence;
- Mode of travel
- Public transit routes used (if any) and costs;
- Parking areas used (if any) and costs;
- Number of automobiles available to the family; and
- Additional information on public transit which would encourage its use.

3. On-Board Surveys: This type of survey is administered to existing patrons of a transit service on-board the vehicles. The survey form is usually distributed to the riders as they board a vehicle and returned to the driver as riders depart from the vehicle. The types of information collected include:

- The route name or number;
- The origin and destination of the trip;
- The trip purpose;
- Age and sex of the rider;
- Occupation of the rider;
- Income of the rider's family;
- Radio and television stations most utilized by the rider;
- Weekly family income; and
- The rider's general impression of the transit system.

One of the problems with on-board surveys experienced during the Section 147 programs was that a significant number of individuals failed to respond. The response rate for each survey will depend on both the difficulty of the survey and the attitude of the individual responsible for administering it. A 60 percent response rate is not unusual.

The decision to conduct and of the survey methods is dependent upon the financial and personnel resources of the authority or provider. Since market research activities are so data-reliant and costly to implement, innovative ideas regarding their conduct should be investigated. For example, students from local colleges or high schools can be solicited to participate in survey distribution or even analysis activities. Also certain employees of an employer may be responsible for distributing and gathering survey forms at their particular place of employment. In either case the individuals may be compensated for their efforts by receiving free transportation on the system.

Marketing Program Goals

After assisting the marketing opportunities and problems of the transportation system, the marketing plan should state the specific objectives of the marketing program. The marketing program objectives do not describe what is expected to happen naturally but, rather, what will be caused to happen as a direct result of the marking program effort. The marketing objectives should be focused entirely upon service development, advertising and promotion, and customer services. Some guidelines for stating marketing program goals and objectives follow.

- Goals Should be Important - The transit marketing program plan should have goals that are of relatively high and equal priorities. There may be many marketing program results that are desirable but not very meaningful when measured in terms of the overall success of the system.

- Goals Should be Realistic and Attainable - Since the marketing goals will serve as the basis upon which the success of the marketing effort will be measured, it is essential that they not be based on wishful thinking or unrealistic hopes of the marketing staff. Ambitious goals that do not reflect the external limitations of resources or of the political environment are of no help in planning the marketing program.

- Objectives Should be Specific and, if possible, Quantified- Objectives should not be stated in vague, subjective, or generalized terms, such as, "Increase system ridership." Better stated, a marketing program objective might be, "Increase ridership by six percent, to two million passengers annually." The more specific and objective statement is, the easier it is for managers to understand, approve, assign priorities to, and allocate resources for its achievement. Specificity also makes achievement of the objective measurable and more suitable for future evaluation. The specific quantitative targets for the objectives should be based on analysis supported by thorough research of the market facts.

Marketing Program Targets

After a set of specific, attainable, marketing program goals and objectives has been defined, the plan should describe in detail the targets and strategies for action that will result in achievement of the goals. Thus, marketing targets provide the basis for an action plan to formulate and carry out specific marketing efforts.

In almost every case, a variety of strategic alternatives will have to be considered in developing an approach to each marketing objective. However, each objective will have one, and only one, recommended target in the completed plan. For example, several strategies could be used to achieve the goal of increasing ridership by ten percent. A pricing strategy might entail lowering fares, but could result in a possible parallel reduction in the quality of equipment and service.

An alternative target could be to increase fares, while at the same time, significantly increasing service, quality of equipment, and performance in order to attract more riders. These two alternate targets are, of course, diametrically opposite; nevertheless, depending upon local conditions, which could be effective in achieving the goal of increasing ridership. It should be apparent that no single target or strategy is appropriate in every circumstance.

It is critical to the success of the marketing program that, prior to the determination of a target, a careful evaluation be made to ascertain the specific needs and desires of consumers. This point emphasize the need for carefully integrating all actions of the marketing plan so that each part can built upon the information and analysis contained in the other parts.

It is important to note that implementation of marketing strategies is not always purely a marketing function. It will frequently happen that achievement of a marketing objective will require the active participation of other transit functions in addition to the marketing function. For example, service improvements involving revised schedules or better equipment will most certainly involve the operations and finance function. This participation by other system functions must be anticipated, and those other functions should be invited to participate in the planning process at an early stage.

In the development of target strategies to achieve an objective, the transit marketing plan should focus on four key marketing concepts: target marketing; competitive stance; buying incentive; and marketing mix. Each of these concepts is discussed in detail below.

1. Target Marketing - This key strategic concept defines in explicitly terms the characteristics of the prospective user of the transportation system, i.e., the segment of the public that the marketing program must influence. It is important to know where these people live; how they re distributed in terms of age, sex, and income; whether they are employed or unemployed; whether they are current riders or potential new users; and their potential willingness to abandon the use of the automobile in favor of public transportation.

2. Competitive Stance - This concept identifies the transportation mode against which the system chooses, or is forced, to compete. In almost all cases, public transportation competes principally with the use of the private automobile. Thus, a marketer's competitive stance must take this prime competitor into consideration in all decisions on strategy.

3. Buying Incentive - This concept affecting marketing strategy is the selection of those attributes and benefits of the transportation system that are most likely to motivate customers to use it. Marketing of public transit does not involve selling a tangible product; it is the total transportation service, not the bus or the train, that is important to the user.

Since people do not normally change their behavior patterns for only one reason, the buying incentive should be multi-dimensional. For example, the program may feature the comfort and ease of public transportation in contrast in the strain of driving an automobile long distance and, depending upon local circumstances, may also point to the fact that it is less expensive to ride the bus than to pay for gas and maintenance. Thus, a sales proposition must be made to the potential transit customer.

It is important to realize that the sales proposition is more than just a part of the advertising strategy; it permeates every aspect of marketing. For example, if a major element is the physical comfort of riding the bus, the proposition should include the assurance that every rider will have a seat; that the drivers will be courteous; and, perhaps, that other amenities, such as air conditioning and adequate interior lighting, will be made available.

Again, this emphasizes the need for integrating every aspect of the marketing plan; the sales proposition (buying incentive) will emerge from the previously defined strategy, which, in turn, was derived from the goals, objectives, and consumer research efforts.

4. Marketing Mix - The final marketing concept involves the allocation of a priority of importance, or weight, to various marketing functions. Because resources are usually limited, it is a major strategic decision to determine how physical and financial resources should be allocated vis-a-vis improved product features, such as air conditioning, more frequent service, public information aids, promotional fares, advertising programs, and research/evaluation activities, all of which may improve ridership.

Marketing Program Resources

The marketing plan must also deal with the marketing budget. The marketing budget should contain allocations of all available resources (money, time, and people). No clear-cut formula exists for calculating a budget; that is, it cannot be stated that a small transit system should spend X percent of revenues on marketing, a medium-sized system should spend Y percent, and so forth. An appropriate marketing program budget for one system, expressed in relationship to total revenue; number of route miles; size of the population served; or other measures, may not be at all appropriate for another system.

Rules of thumb have been used to determine the size of the marketing budget. Such a rule might be that the additional expenditure for marketing, compared to last year's budget, should result in at least a proportional increase in ridership or revenue, or should increase total ridership without an accompanying increase in the subsidy level per ride.

Another approach is one in which the marketing budget is related to a goal or objective, but not necessarily to individual tasks. An illustration of this type of approach can be found in the case of a West Coast transit system, which set a goal to persuade automobile commuters to try the system during the year. The marketing budget established to achieve this goal was equal to the cost of one free ride for each automobile commuter. Within this total, the percentages of the budget to be allocated to its components -- advertising (radio, newspapers, direct mail or other home delivery, and other modes), sales promotion, and public relations -- were developed.

Marketing Action Plan

The action plan consists of the projects and activities designed to achieve the stated goals, objectives, and targets along with evaluation and feedback procedures to measure the level of success to any given project or activity.

There are thirteen different, yet interrelated, areas for marketing involvement. Four of these are essentially external to the operation itself, including public perception (image); governmental/political leaders; business community; and media. The remaining nine are internal, or an integral part of the transit operation itself, including: public information; merchandising, promotions, and special services; equipment; passenger amenities; routes/schedules/services; personnel; plant and maintenance; fares and resources; and planning. Goals, objectives, and activities for some of these marketing areas are covered in the following pages.

1. Public Perception (Image)

The perceptions of the public are difficult to identify. Perceptions are made up of individuals' thoughts, and these thoughts are hard to define by the individuals themselves, let alone by transit managers. Nevertheless, the result of perception is choice, and then action, by the individual. Therefore, there is a need to try to exercise some control of the public's perception of public transportation.

The public's perception is a result of its exposure to transit activities over the years. Collectively, the types of people you have hired, their appearance, the condition and design of buildings and equipment, the type of press you receive, and other factors contribute to public perceptions. Do not be surprised if you analyzed the results of your public opinion survey and find public transportation negatively associated in the minds of the people. People have become used to other forms of transportation that suit their needs. This has come about, in par;t, because transportation today is much more than moving people from here to there. People are accustomed to, and expect, levels of comfort, convenience and accommodation of lifestyle to be satisfied by their transportation mode.

While people may perceive buses and vans as being inefficient, undependable and unable to accommodate their life-styles, the picture is not all that bleak. People's opinions can be changed, and rather quickly. Many systems around the country are enjoying a more positive community perception of service and increased ridership. The fact is that public transportation is not as bad as people perceive it to be. As a system makes improvements, people will change their preconceived notions.

The point to remember in making efforts to create a positive public perception is this: When you do it, do it right; or do not do it. Further, do not look at a route schedule as being less important than the bus itself, because it is not. Pay attention to the details so that each effort builds upon previous efforts and creates a firm foundation for what is to follow.

Goal

> To profile the transportation system as an aggressive, dependable, people- and consumer- oriented public transportation service.

Objectives

- o To inform the public of the present and future environmental, economic, and social life-style impact that public transportation has, and will have, on the people in the community;

- o To begin to change the perceived importance of the automobile as the only major alternative for transportation needs; and

- o To create a visual image in keeping with the community and equal to other successful and respected businesses in the community.

Projects and Activities

A. Operating Policies - A formalized set of operating policies and procedures should be adopted so consistency in performance of services is realized This does not need to be a complicated process. It simply requires written documentation of each activity (or group of activities(, and an explanation of how it is to take place and who is responsible for its execution. In this way, everyone associated with the system will be aware of system policy and have a better understanding of how they, as individuals, can share in the job of creating a sound, positive public image. You will find that once these formalized procedures are adopted, life will be much easier for the general manager and better for personnel and customers.

B. Design and Use of a Logo - To develop a positive image, a logo can be used to positive image, a logo can be used to portray, identify, and define the transit system and strongly promote its image in advertising. It can be animated in media advertising, to provide a continuity, using the full capability of each media. A logo identifies system vehicles, equipment, shelters and facilities as well as maps, charts, scheduled, and any other representational material. Its design is best handled by a graphics designer, however, and area contest to come up with ideas for a logo can provide area residents with a feeling of participation in the system's operation.

Here are some basic guidelines to remember when choosing a logo:

- o It should be unique, unlike anything else, insofar as you are aware. If you choose a concept similar to others which already exist, you lose your individuality. An analogous situation would be two persons with similar names -- how would you distinguish one from the other?

- o It should be simple, geometric, understood by all, and have strong visual impact. It should not be difficult to produce or print.

- o It should communicate effectively in all tow-dimensional and three-dimensional applications. What is acceptable on stationery may be unreadable on a sign seen by a motorist or pedestrian 200 feet away. Avoid extremely decorative typefaces or scriptural forms.

- o It should reproduce well in black and white as well as color. In fact, the preliminary evaluation form should be in black and white.

While each transportation agency needs an individual logo, and each must be different, there are some basic design approaches to develop transit logos. The include:

- o The letter form outlines as a symbol itself. This avoids the possible duplication of any other logo.

- o A logo which incorporates arrows to symbolize the nature of the service (direction/motion).

- o Use of the bus pictogram, or variation, to symbolize the service.

As a preliminary legal step, a copyright check and filing should be made on any logo adopted.

Example of other activities to improve public image include the following:

- o Sponsoring television announcements which basically advertise the availability of the service. Due to the cost of television advertising this technique should be carefully scrutinized prior to implementation. If utilized, the announcements should be brief and geared to a particular market segment. It may be possible to acquire free advertising by having television stations make public service announcement regarding the service.

- o Radio announcements which are geared mainly towards commuters who do not use public transportation. These announcements are much less expensive than television advertisements and, therefore, can be aired more frequently. The announcements should usually be aired during either the morning or afternoon peak hours and should be broadcast on the most popular radio station. According to the Section 147 program, a minimum of 18 announcements per station should be broadcast over a three-day period in order to be effective.

- o Newsletters which are oriented towards not only patrons but also community leaders and government officials. Newsletters should contain such information as ridership history, financial status, and any changes made to the system. These newsletters can be very helpful in a transit system's effort to form a broad-based constituency group.

- o News releases which provide the general public with current information regarding almost any aspect of the transit system. News releases not only keep the community informed as to "what's happening" with the transit system but they can also serve as a form of free advertisement. It is important to keep local news media personnel informed of the system's activities and also to develop a good rapport with these individuals.

- o Advisory committees which provide direct input to the decision making personnel of the transit system. The establishment of advisory committees will provide citizens with an opportunity to become actively involved in the system's operation. These committees should be established either concurrently with the system's start-up or shortly thereafter to facilitate the members understanding of the system.

The most important aspect for success of a public image program is in its implementation. Standards should be set for application and use of all elements so that everyone involved has guidelines to carry out the program as it is intended. Developing graphic standards which define shape, size, proportion, color, and material for all users gives form to the marketing program and direction to the transit operator on how to continue and expand upon it.

Consistency is extremely important since it reinforces the transit system's identity. Consistency allows the transit system to control and project the identity it wants and provides the framework within which new equipment, services, and future applications can be integrated under one common identity.

To make sure that the system identity is maintained in production:

- Specify, in detail, what you want. Do not let others or the influence of the lowest cost bid decide for you.
- Before making a decision, first look at new applications in drawing or graphic layout.
- Ask for proofs or brownlines from a printer to check accuracy and conformance before approving production.
- Make the existence of graphics standards known to anyone who will design or produce any of the applications.
- Select a typeface both legible and adaptable to the wide range of application planned.

2. Public Information

This marketing area incorporates user information, sales communication and merchandising strategies, and printed pieces prepared by the system. Theses projects and strategies are important to the system because they tell the people what the system is and how to use it. Therefore, the manner in which they are prepared and presented requires careful consideration. Some possibilities for presentation of public information might include the following:

- Prepared User Information Aids - These pieces are your method of communicating to the rider about the services you offer, and their production is one of the most important responsibilities of the system.
- Media Coverage - Use press releases and encourage indepth reporting.

- Community Meetings - These meetings are held to discuss the city or county's future plans. These are opportune times to discuss major transportation plans or new developments.

- Citizens Advisory Committee - A committee that represents the citizens of your community is an effective means to gain objective input. Its function is to serve as the eyes and ears of the system; to let you know what problems the riders are having; and help find ways to solve those problems. The committee can also lend an important hand in community votes, distributing information and encouraging general community support.

- School Program - Making periodic visits to the schools can help. Bring buses to school yards to help explain bus riding "etiquette." Explain such things as where the buses to, how much a ride costs, how to read a schedule, where to wait for a bus, and how to know what bus to take. For older children, explain the benefits of the system, and ask for their support. Hand out schedules and other printed materials. Students are good sources for immediate as well as long-range customers.

A. Interior Bus Cards - Provide patrons with information ranging form new system routes and services to fare information or promotional campaigns; brochures which provide information regarding the complete operation of the system. The brochures may include a system map, fare information, operational information, and special service information. The distribution of brochures may be accomplished through local retailers, banks, etc.

B. Telephone Information Service - Provides system information for both existing and potential patrons. If possible the service should utilize a toll-free number and be available throughout most hours of the day.

C. Discount Passes - Offered to patrons who utilize the system on a regular basis, to establishments who assist in promotion of the system, to elderly and handicapped residents, and to students. Discount passes can result in increased ridership on the system and can also provide a more even "cash-flow" for the system.

D. Free-Ride Coupons - Offer to anyone who wishes to ride the system within a given time period. The objectives and distribution methods for these coupons can be of two varieties. If the objective is to reward current riders then the coupons should be distributed on-board the vehicles. If the objective is to attract new riders then the coupons should be distributed through a local newspaper.

E. System or Route Schedules on Restaurant Placemats - Restaurants selected for participation should be located along existing system routes. Item may be possible to develop an arrangement with local restaurants to share in the costs of printing the placemats.

F. System Map - Depicts all system routes and the geographic area which is served. The map should also include major streets, large trip generators, and general system information.

G. Information Bulletins - To describe special services available for various market segments. These bulletins can either be posted in public places, distributed on the vehicles, or placed as advertisements in local newspapers.

H. Printed Schedules - List the arrival departure times of each vehicle on a particular route. The schedules should be designed to allow for easy interpretation of the information and should also utilize large bold type for easy reading.

Goal

- o To develop a public information program that will reinforce current riders and educate and persuade potential riders.

Objective

- o To define rider and non-rider groups' information needs and motivation;
- o To inventory information needs by rider and non-rider groups and by the effect these needs have on the decision to ride;
- o To design and implement a user information system (on- and off-route) and a targeted sales communication system (promotional) plan with available resources;
- o To develop a consistent and complimentary image in the community; and to encourage participation with the public.

Projects and Activities

There are numerous areas of activity under the general heading of public information. In addition, because of the vital importance of the public information program, details, including design criteria, guidelines, and examples, within the text.

3. Public Time Schedules

The public time schedules can be one of the most informative pieces produced by the transit system. The time schedule rates number one by consumers among the information pieces. Its function is to give the rider the following information: name and/or number of route; route details; time buses leave from route origin, destination, and key points along the route; and additional information that may be helpful.

Because a time schedule can hold only so much information, it can become too complicated and unclear. For that reason, design is extremely important. Unclear information may be more harmful than no information, for this printed piece is a representation of the system, and as such, conveys an impression to the user about the system. Any chance to create a good impression is certainly worth the extra effort in planning.

4. Governmental/Political Leaders

The governmental/political group is comprised of those people who are in public transportation-related decision-making roles at local, state, and federal levels. This group ranges from local board members and council members to state legislators, DOT officials, United States Senators and Representatives, and UMTA officials.

Their public charges related to planning, zoning, tax support and other functions have great bearing on public transportation's future. It is important that these leaders be made aware of your programs and progress so they can continue to support public transit issues. The leaders who need to be informed about your system are:

- At the local level:
  - Mayor and/or City Manager
  - Council Members or Alderman
  - Transit Board or Committee
  - City or County Department or Agency Directors whose responsibilities affect transit
- At the state level:
  - Governor
  - State Department of Transportation (Public Transportation Division)
  - Legislature (transportation and appropriate chairpersons)
- At the federal level:
  - U.S. Senators and Representatives from the State
  - Regional UMTA Officials
  - UMTA and FHWA Officials in Washington, DC

It is important to remember that there are differences between elected and non-elected officials. Those who have been elected or appointed usually have administrative policy and funding responsibilities. The non-elected officials primarily control service and planning.

Get to know those officials who are accessible. Meet with them periodically. Explain the benefits of public transportation to the community, plans for the future, how the public feels, and what successes and failures have happened and why. For those who are not accessible, copies of newsletters, leaflets, and press releases with a personal letter attached will keep them oriented. Little touches, such as sending Christmas cards, help keep the relationship on a personal, more direct level. And, be sure to acknowledge positive votes on transit issues. Let them know how important their votes are.

It will also help to attend relevant meetings so that transportation's viewpoint is represented and understood. Find out what plans are being contemplated in which your organization should be involved.

Goal

To increase governmental/political awareness and support of public transportation systems and plans at the local, state, regional, and federal levels.

Objectives

- To periodically present system goals, objectives, and plans before public officials;

- To increase management involvement in political and governmental groups;

- To expand next year's subsidies; and

- To secure political support for expanded service.

Projects and Activities

The principal objective in dealing with governmental and political leaders in two-way communication. To establish this communication, you might consider the following projects and activities.

A. Self Yourself and Your Organization - Establish specific short-range plans and establish budget needs. Use any research that has been completed as a data base for community support, and put together a visual and oral presentation showing transportation importance and public benefits from an aggressive transit development program. Sell next year's budget all year long; do not hesitate to present new programs each year.

B. Maintain Surveillance - The general manager must make a point of knowing what is going on in other governmental planning offices in the area. The transportation system must influence, as necessary, zoning, access, right-of-way, and other important considerations through political and technical means. Transportation systems must sell public transit benefits and research findings to elected officials. These officials, in turn, must encourage policy, budgets, and ordinances favoring public transportation development. A spirit of cooperation among system management and other governmental agencies must be continually promoted.

C. Let Them Know What You Are Doing - Establish a mailing list of governmental/political individuals and departments. Mail the newsletter, your annual report, and other pertinent information to relevant persons. Publish your annual successes and future commitment to the citizens of the community at a strategic time. Send information about public transportation to all declared political candidates, encouraging their support. Through the newsletter and other methods, recognize employee's involvement in social services and other community events.

D. Participate - The general manager, staff, and employees should take an active role in community events -- socials, picnics, political rallies, and service organizations. In this manner, you can get to know public officials on a personal and social basis.

A simple, inexpensive newsletter is one of the proven means of communication. These products, sent out regularly, keep public officials current with our activities and keep your organization and its purposes and need in the front of their minds. Other samples of public information materials are to be found throughout this manual.

5. Business Community

Communicating with the business community is just as important as it is with government. Businesses have a direct effect on local revenues and, therefore, systems funding as well. Businesses must understand that public transportation is a community service whose presence is necessary now and will be increasingly so in the future.

Goal

To involve business community in short- and long-term public transportation implementation.

Objectives

- To assume a leadership role in stimulating business participation in transportation system development;
- To make the business community aware of the economic impact of public transportation;
- To assist businesses in developing and providing for public transportation access to existing and new residential and commercial facilities; and
- To secure business community participation in transportation user incentive projects.

Projects and Activities

The most important aspect of developing relations with members of the business community is to use their time and talents well. Plan meetings carefully to get their participation and give them something concrete to do.

A. Establish and Ad Hoc Business Committee - Consider developing a list of people representing a cross-section of businesses. Hold an informal meeting with a representative number of business leaders and give this group the transportation system "story" -- what it is doing; what its plans are; how it can help them; and how they can help it. If there is interest following the meeting, suggest that an ad hoc committee be formed. Such a committee would provide advice, open doors, and help push the politicos. Most important, it would serve as a source of good ideas and information.

B. Produce an Employee Information Packet - Develop a list of major employers located on bus routes. With the employer's cooperation, produce an attractive information packet for distribution. Then solicit employer's cooperation in distributing information to all employees on a scheduled basis.

C. Devise Joint Promotions - Special free or reduced fares supported by merchants during sale days are a great way to involve the business community in a mutually beneficial project. Special fares or free riders supported by new businesses or shopping centers might stir up interest, too.

D. Encourage Participation in Decisions Concerning Facilities and Operations - Encourage businesses to make suggestions regarding shelter design, maintenance, materials and location, especially when stops are in their immediate area. Collect data to determine current and potential transit ridership to shopping centers, large employment centers and other points of concentration, public and private. The economic, employee, and customer benefits of easy public transportation access to facilities should be explained to business management.

E. Encourage Programs for Facility Development - Assist new residential and commercial areas to construct benches, shelters, and landscaped waiting areas. Such developments can be encouraged by providing transportation services to these areas and assisting in the design and capital costs required for such facilities. Businesses want customers, but they do not want them standing in their door, waiting for a bus. Yet, public transportation can have a significant impact on the retail and employment centers of the city, especially upon downtown merchants. Business needs public transportation and transit needs the business community; a cooperative spirit between both entities is required. An active role in the design concepts of any downtown urban redevelopment improvement project should be assumed by the transportation system.

F. Contact Businesses Along Bus Routes - Let the business community know that the system is around the concerned about its needs. Seek advice, hear complaints, gain support, and always follow up with a letter. Encourage businesses to provide rider amenities in proximity to existing and new structures. Develop a modular bus bench and bus shelter system so that businesses can purchase units, borrow plans, or allow the transportation system to build amenities or private property. Consider a mailing once a year to all business along bus routes telling them about transit plans and asking for information in return.

Joint transit-business promotions are a means of introducing new riders to the system. Your objective is not only to get the rider on board to try the system, but also to present a positive system image to new riders, to the extent that they will return again and again. Be sure your system is ready in every respect before taking on such a promotion.

6. Media

Apart from cooperation in advertising and promotional programs, the media can also be very influential in swaying public opinion, and public opinion, in turn, can sway legislator's votes. It is important that the media understand what the transportation system is trying to achieve and be kept informed of its activities so that objective, knowledgeable reporting can take place. Not all press coverage will be complimentary, but if rapport with the press is good, then at least the uncomplimentary coverage can be constructive.

Most contact will take place with newspaper, radio, and TV reporters. Radio and TV are the media of the moment, and coordinating emergency information with them helps build a good working relationship. For example, suppose a rain storm causes and accident that blocks a major street and one of your drivers notifies you -- call the stations and notify them. They, in turn, can warn motorists. Newspapers will carry more detailed information, such as plans for the future, employee profiles, and other in -depth reporting.

As you begin dealing more directly with the press, do not be discouraged by negative opinions. Work with the media to turn the negatives into positive. Get the media people involved -- show them your facility, give them a tour on the bus routes, and give out one-day passes. Encourage them to give you objective criticisms and to write the human side to the bus business. Approach them in a positive way -- do not be defensive -- be helpful and straightforward.

Goal

To increase public awareness and support by creating a positive and cooperative attitude between public transportation and the media.

Objectives

- To meet with newspaper editors and radio and TV station managers at least twice a year;
- To mail a letter twice a year to radio and television stations and any smaller area publications, encouraging them to call or stop in any time;
- To create rapport with editorial writers of the major publications in the area
- To stay on good terms with reporters through periodic calls, letters, and lunches at opportune times.

Projects and Activities

As with other specific areas of the public, the critical aspect of relations with the media is good, regular communication. With this in mind, establish and maintain an accurate mailing list for all media forms. Press releases related to existing, future, and potential transit activities should be sent to the media on a scheduled basis. Something should be mailed out at least once a month. Send your newsletter and your transit system annual report to all media.

Release information related to next year's budget and plans at strategic times. Essentially, this means building up the pace of press releases, submission of potential developments, and program acknowledgements of the current year's successes and disappointments two to three months prior to final budget allocations. This effort requires that a specific communication strategy, including objectives, be designed to support the plans and budget requirements for the next year. The communication plan must be prepared to be modified, if necessary, depending on public and press reactions.

<u>Implementing a Marketing Program</u>

The final step in the development of a marketing program for a nonurbanized area public transportation system is the actual implementation of the identified marketing activities. A successful marketing implementation phase will provide continuous feedback on the benefits of each marketing activity. There are three fundamental areas of the implementation phase:

The implementation phase of the marketing program is where the director of a rural public transportation system will require the greatest amount of cooperation from his/her employees. Since the entire marketing program provides a link between the consumer (passenger) and the product (transit system) it is imperative that each employee share in the responsibility of providing that link. In conjunction with the increased coordination among system employees is the aspect of paying for the marketing program. Since many public transportation systems in nonurbanized areas are confronted with minimal operating budgets, a marketing program is often placed low on the priority list. According to the results of the Section 147 program, an appropriate amount for the marketing budget should equal approximately 3-5 percent of the total operating cost of the system. Given the fact that there are limited financial resources among numerous transit systems, and all internal mechanisms, such as employee coordination, will greatly enhance the marketing efforts and also result in reduced expenditures. It is the general manager's/director's responsibility to make sure that marketing activities are implemented based upon priorities and that the expenditures associated with each activity are justified. Most importantly, it must be remembered that the success of a nonurbanized area public transportation system is dependent not only upon the existing service but also how well that service is perceived by the riding public. A marketing program is, therefore, an integral element of a nonurbanized are public transportation system.

EXERCISE

Taylor Green, manager of Pine Valley Transit describes his marketing situation as follows:

"The Transportation Assistance Program (TAP) existed to serve the needs of the elderly, handicapped, and low-income citizens of Medicine Valley. With the advent of the Section 18 program and the Medicine Transit System (MTS) management set out to make MTS something more than a '162(2)/social service' transportation program. In marketing terms, we attempted to "create a new position" -- a position somewhere between social service transportation and urban mass transit. We labeled this new position 'rural public transit.'

For the past two years, we have been attempting to establish and define this new position concurrently. We have been very successful in helping to create the image professionally in the transit industry: our accomplishments within APTA, NASIA and other professional affiliations have helped establish rural public transit as a legitimate link in the nation's transportation network.

We have not been successful in establishing this new position locally! The routes, passengers, and service types are generally identical to TAP system characteristics 3-4 years ago. Our budget has increased 30% and we are traveling 10% more miles yet ridership has only increased 7%. We have 'reclassified' some elderly passengers and called them 'general public;' yet the service is the same. Seven of our ten buses will say TAP on the side. Two have county names of systems that were consolidated with ours and one bus has no marking on it. Further, the public perceives MTS as a social service/specialized transportation operation; few people know that anyone AND everyone can ride our vehicle. Finally, it doe not appear that the local communities are generally supportive of our efforts to establish MTS as something more than a specialized system."

Taylor says he has thought a lot about the key concepts associated with his marketing problem. He says:

"Rural public transit is very generically defined as paratransit services flexibility designed to meet the unique transportation needs of rural communities and citizens. Key words are:

1. "Paratransit" -- UMTA has defined paratransit as "transportation services which are tailored to individual needs through flexible scheduling or routing of vehicles," including "carpooling, vanpooling, dial-a-ride, shared-ride taxi, jitney, airport limousine, and subscription and route-deviated buses."

2. "Flexibly designed" -- There is no generally accepted mode of operation such as fixed routes common to urban systems.

3. "Unique transportation needs of rural communities and citizens"-- We must identify market segments and design our service package to meet the uniquely define needs.

Given the generic definition of the market position we wish to create (rural public transit), MTS IS ENVISIONED AS A diverse and all-inclusive transportation project, addressing all transportation needs of Medicine Valley. In practical terms, we should become Medicine Transportation Services, rather than merely a transit system. To address the unique demands of rural communities we should consider a viable array of services:

24-hour demand-response services
Taxi services (coordination)
Route deviation services
Fixed routes
Van pools
Charter services
Carpool matching services
Subscription services
Driver-training services
Management training services
Advertising services
Package-delivery service

The strategic approach to increasing market share should address the climate and needs of each community. However, several general guidelines should be noted:

- Our strength has been the quality of service provided to the elderly and handicapped citizens of the area. We should consider this a strength not a weakness, and utilize this strength as the basis for our marketing strategy and planned growth.

- Local officials are hesitant to accept the image of "mass transit" for their communities. We should abandon this approach, and build upon our present services.

- Building upon our strengths, the theme of our approach should be: "We don't expect everybody to ride all the time, but we imagine everyone will ride sometime."

  (a) Our services have been and will continue to be important to the elderly and handicapped -- the people who need transportation most.

  (b) But, MTS is an insurance program for everybody:

  When you lose your license
  When your car won't start
  When you've had a little too much to drink
  When your husband/kids take the car
  Etc.

  (c) In fact, MTS is just a good, low-cost way to provide an alternative to the automobile when you need that alternative:

"We don't expect everybody to ride all the time, but we imagine everyone will ride sometime.

To support this theme, we should demonstrate that MTS services have peaks and down-time: we are seeking to make the most use of equipment and other resources by using vehicles during off-peak hours.

We have failed to use volunteers to the best advantage to date. In other parts of the country, volunteers are among the primary resources of rural transportation projects. A primary marketing goal in all of our five counties will be to organize and maintain active volunteer committees to assist us in designing service and to generate local support.

We should take advantage of any opportunity to promote/publicize our accomplishments. Because we have not emphasized this approach, several great opportunities have "slipped through the cracks" in recent weeks: parades in the area, the Gray County Fair, etc.

EXERCISE

Taylor is frustrated by his national success and mediocre achievements locally.

1. Discuss and comment on Taylor's assessment of his situation.

2. Do you know of any programs like Taylor's?

3 Develop a mission statement, goals, objectives, targets and tasks for Taylor which emphasize the marketing function and help Medicine Transit System move towards more general public service.

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ENHANCING PUBLIC INVOLVEMENT

OBJECTIVES

The training objectives of this session are:

1. To provide an understanding of the need for public involvement;
2. To review traditional public involvement techniques; and
3. To provide alternative ideas for enhancing public involvement.

ISSUES

Public involvement in rural public transit is invaluable from both the planning and operations perspectives. While most, if not all, rural transit systems believe that public involvement is actively solicited and responded to, it is more often the case that public involvement is merely a satisfaction of a state or federal requirement and is simply an exercise in bureaucracy.

Recipients of Section 18 funds are not required to engage in a formalized planning process, so the level of rural transit planning will vary from state to state. However, it is presumed that each rural transit system engages in some form of service planning, either through an annual, formalized process or through the day-to-day activities of service operations. In either event, it is critical that the transit manager/planner understand the reasons for providing the types of rural transit service within his/her region. The only way to accomplish this task is to solicit input from residents of the service area.

The issues presented in this section include identification of the reasons for public involvement, traditional methods for accomplishing public involvement, and methods for realizing more meaningful public involvement.

TRADITIONAL PUBLIC INVOLVEMENT

Although traditional forms of public involvement have proven to be less than satisfactory for rural transit systems, there are still instances when their utilization is necessary, and perhaps, appropriate. These traditional public involvement forms include:

- <u>Mail in attitude surveys</u> which are based on sampling procedures. Attitude surveys can be effective for determining the values held by community residents.

- <u>On-board passenger surveys</u> provide excellent response rates and assist in determining specific areas where the transit system is either performing well or needs improvement. All survey instruments should be brief with clearly stated questions.

- <u>Citizen advisory committees</u> are typically comprised of interested citizens who have volunteered their time and services. Membership on these committees comes from community individuals who have been identified by the transit agency or community members who are identified by local political leaders.

- <u>Neighborhood meetings</u> provide citizens who may have valuable input the opportunity to participate in decision making without subjecting them to formal, public meetings. Neighborhood meetings are most successful when a community representative sets up and conducts the meeting. A transit system representative need not be present but the proceedings of the meeting should be recorded and provided to the transit manager.

- <u>Public service media announcements</u> are an inexpensive mechanism of informing the community of current activities of the transit system. Proposed changes in service or proposed fare increases may be communicated to the general public using this technique, with the opportunity of responding to the information being included in the announcement.

- <u>Public meetings/hearings</u> tend to be the most commonly used method for soliciting public input. Public meetings/hearings should follow a structured format so as to maximize their value. Public meetings/hearings should be publicly advertised well in advance of their conduct in order to encourage attendance.

- <u>Brainstorming</u> sessions provide an environment for the free exchange of ideas. In a brainstorming session, an issue is presented to the citizen participants who are then allowed to express any ideas they possess. Criticism of ideas is prohibited in order to encourage active participation.

- <u>Field offices</u>, as extensions of the centralized administrative or planning office, provide opportunities for citizens to supply input to the decision-making process and also the means for citizens to learn more about the transit operation.

- <u>Telephone hotlines</u> provide citizens with immediate access to the transit operation. The hotline should be a designated toll free telephone number and should be staffed with personnel capable of answering inquiries or discussing issues.

The rural transit manager must determine which activity or series of activities is most appropriate for enhancing public involvement for a particular situation. The rural transit manager must also understand that attempts at evoking public involvement will often be frustrating but the nature of public transit mandates continuous efforts toward that end. The success of any public involvement activity is a direct result of the commitment level on the part of the rural transit manager.

For the purposes of rural transit planning, traditional methods for soliciting public involvement will not work. Telephone surveys, mail-in surveys, news releases and public meetings do not generate sufficient response levels to provide the transit manager/planner with meaningful information. The reason for low response rates is that, for most residents of rural areas, public transit manager should initiate special efforts in order to enhance public involvement in the planning of rural transit services.

NON-TRADITIONAL PUBLIC INVOLVEMENT

User Group Meetings

Traditional forms of public involvement necessitate that the public respond to the transit system. The user group meeting approach proposes just the opposite -- the transit system goes to the public. The major presumption in this scenario is that potential user groups are reasonably well defined. This form of public involvement is more costly to the transit system since it is so labor-intensive but it is the most effective method for soliciting input. User groups may consist of Head Start parents' meetings or senior citizen organizations.

User Group Newsletters

Many specialized transit user groups, such as the elderly, have well organized associations which represent the concerns of the elderly either on a community, county or regional basis. Since these organizations deal solely with issues of concern to the elderly, they are traditionally well read and tend to generate high response rates. Informational items placed in these newsletters are a cost-effective way for the rural transit system to solicit input.

Rural and Small Urban Transit Marketing

Public involvement in rural public transit is a two-way street. Not only is it critical that attitudes and opinions of the general public be made known to the rural transit manager, but it is equally important that the general public be made aware of the service provided by the rural transit system. While this may be viewed by some as simply a marketing activity, it is much more. The rural transit manager must understand the concepts of building community acceptance and support, of the impact which local citizens have on city councils and boards of supervisors and the extent to which state legislatures are influenced by input received from the public. In this respect, public involvement is a mechanism for solidifying financial support for the transit system and, in certain cases, an effort to generate increased utilization of the transit system.

In order to accomplish this task, the rural transit manager should be willing to, once again, conduct personal meetings on a regular basis. These meetings, however, should be scheduled with non-traditional groups or organizations such as the Rotary Club, Chamber of Commerce Board or local economic development group. It is critical that the rural transit manager understand that these non-traditional public groups are less likely to understand the concept of rural public transit and are probably somewhat skeptical of the idea. The best way to involve these groups is to put the notion of public transportation into an arena with which they can associate.

For example, a local economic development organization is probably not interested in how many senior citizens are transported daily to the senior citizen's center. However, this same group is probably very interested in how many employees the transit system has, what the transit system's annual payroll is or the total dollar value of goods and services purchased locally by the transit system. Therefore, the transit manager should tailor his/her presentation to satisfy specific areas of interest of the group being addressed.

It is important to establish different identities for the transit system depending on the public group being addressed. Once the rural transit manager has established that identity, acceptability of the transit system is increased and public involvement increases.

Another mechanism for enhancing public involvement in rural public transit is to integrate the service with retail and/or business activities. Many rural transit systems focus their service on the traditional transportation-dependent and, as a result, decrease the opportunities for involving non-traditional users. The integration of public transit and retailing in urban areas is obvious and is even so in smaller urban areas. However, rural transit systems lack exposure in this arena.

Involvement with retailers and/or businesses may occur in several forms. These may include:

- o Providing shuttle bus service between the downtown area and a highway shopping center on Saturdays;
- o Making a vehicle available for economic development officials for touring the community with prospective businesses; and
- o Participating in special retail promotions by providing discounted transit service.

The rural transit manager should be willing to work closely with the local business community in order to strengthen the image of the transit system.

<u>Staff Involvement in the Community</u>

All employees of rural transit systems should be strongly encouraged to participate in community-based activities or become members of a service organization. While the rural transit manager can not mandate such participation, he/she is in a position of strongly encouraging such participation. The rural transit manager may consider payment of organizational membership dues as part of an employee's compensation program. The rural transit manager may find that encouragement for participation is not necessary since quality employees have a tendency to be community oriented. The purpose for employee involvement is, once again, to increase public awareness of the rural transit system and, therefore, encourage additional public involvement with the transit system.

Encourage Youth Involvement

An often forgotten and subsequently neglected segment of the general population is school age children. Because they are not in positions of decision-making nor serve on the transit system board nor vote to increase funding for rural public transit, most rural transit managers forget the influence children have on our society and that they have ideas!

Most rural transit systems do not provide a significant level of service to children, unless they happen to be members of a special user group, such as a Head Start class. However, these children will eventually grow up and may be in a position of either needing or desiring the services of a rural transit system. at a minimum, these children are probably related to an individual who either currently uses or should be using rural transit services available. To enhance the involvement of youth, the rural transit manager should be willing to personally visit local schools and provide programs to individual classes. The rural transit manager may also want to actively involve the schools by sponsoring competitions among schools for some element of the transit system's operations.

The more knowledge that children possess, the more influence they have on their parents!

EXERCISES

EXERCISE 1

The Willow Creek Transit System recently initiated service in Lake County. Service is provided on a demand-responsive basis, two days per week for the non-incorporated parts of the county between the hours of 9:30 and 3:30 and on a fixed-route basis, there days per week for the county seat town with the same service hours. Morning and afternoon peak service is provided on a subscription basis to Head Start students, attendees of a developmentally disabled sheltered workshop and employees of the workshop. The vehicle is available for specialized service on an as-needed basis.

Since service initiation, the Willow Creek transit manager has heard minimal comments regarding the service. However, ridership for both the fixed-route and demand-responsive segments of the service is running approximately 50% below estimates. In addition, the vehicle operator has mentioned that several Head Start parents are concerned about the "safety" of their children due to the "questionable" character of other passengers.

Within the context of public involvement, what would you, the manager of Willow Creek Transit, do to address these problems?

EXERCISE 2

The CAT Transit System has received numerous requests from the Board of Supervisors of Lubbock County to initiate public transit service throughout the county to assist the elderly in meeting their daily needs and workers in getting to and from work. The county's largest city has a population of 12,500 and the total county population is 21,200. The county has 24% of its citizens above the age of 60 and the average unemployment rate in the county is 11.4%.

Based on this information, what traditional forms of public involvement might be utilized to determine the need for public transit in Lubbock County? What non-traditional methods might prove effective? Develop a structured format for a traditional public hearing regarding the issue.

EXERCISE 3
ROLE PLAYING

The group has several identities -- the chamber of commerce board, the senior citizens advisory committee, the local arts council board, the city council and/or the 5th grade class at Jackson School. Each member of the group should select an "identity" which he/she wishes to address and deliver a brief presentation on the impacts of his/her transit system to that particular "identity."

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