

Long-Range Planning Issues for Small Transit Agencies

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For small transit agencies to remain effective and to grow in service, they must respond to a number of national and local trends. The Intermodal Surface Transportation Efficiency Act, Clean Air Act, Americans with Disabilities Act, and local economic conditions are but a few of the recent events that mandate the use of long-range planning for small transit agencies. A research effort that identifies and discusses the key issues for strategic planning of transit agencies in small and medium-sized communities is outlined. Strategic planning can be a difficult undertaking, particularly for smaller agencies, because they either do not have the staff and time resources to carry out analysis of organizational practices, consumer needs, and political environment or do not feel the need for such formal processes because their organizations are simple enough and the strategy setting can be based on managerial experience and judgment. In addition, a case study of a recently completed study for the transit agency in Charleston, West Virginia, is presented.

The recently adopted Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) has empowered state and local governments with greater opportunities for involvement in transportation infrastructure and operations. In the signed version of the bill, \$31.5 billion is authorized for transit over a 6-year period. A fundamental difference between ISTEA and prior transportation bills is that it gives states the flexibility to allocate federal dollars among highway and transit initiatives. Although funding flexibility for transit under ISTEA presents an opportunity for transit agencies to participate in the state programming process, it will be necessary for these agencies to develop comprehensive strategic plans. Many small transit agencies will be conducting strategic planning for the first time.

Transit agencies carry out strategic planning in different ways. Some perform long-range (10 to 20 years) service and capital plans, which are formal documents required externally, (e.g., transportation improvement programs, or TIPS). The focus is primarily on demand for service, service levels, capital needs, funding requirements, and fare structure. Some perform short-range (1 to 2 years) service plans or tactical planning, which is similar to long-range service and capital planning but has a shorter time horizon in which the focus is primarily on comprehensive operational analysis (1). The discussion in this paper addresses long-range planning for a horizon of 5 to 20 years, with a focus on strategic issues of importance to small transit agencies. Strategic planning can be a difficult undertaking, particularly for smaller agencies, because they either do not have the staff and time resources to carry out analysis of organizational practices, consumer needs, and political environment or do not feel the need for such formal processes because their organizations are sufficiently simple and the strategy setting can be based on managerial experience and judgment.

It is expected that small transit agencies operating in small urban areas (population less than 200,000) will need guidance when confronted with complex issues such as funding, staffing, compliance with regulations, and evaluating service alternatives for the future. This is because, in general, small transit agencies do not have the internal infrastructure and planning experience necessary to develop long-range transportation plans. Instead, they may depend on externally developed service planning documents to form an internal comprehensive program. This may be attributed to lack of staff resources, lack of support for such activities, lack of training, and lack of perceived need. In large transit agencies, however, there is more likely to be a dedicated internal planning process infrastructure.

Much of an appropriate planning process of transit agencies within small urban areas will probably be area-specific. That is, much of the strategic planning process is governed by the following: local issues and policies, area travel and activity patterns, topography and geography, existing transportation infrastructure, proximity to major cities, and other factors (2). Although much is area-specific, there is a need to formulate the general issues that are necessary to address the unique needs and characteristics of small transit agencies. This paper addresses the major issues in long-range planning for small transit agencies. In addition, a case study is presented based on a recently completed study for the transit agency in Charleston, West Virginia.

The objectives of this paper are as follows:

1. To identify differences between small and large transit agencies,
2. To describe a methodology for developing an implementable long-range strategic plan for small transit agencies,
3. To identify planning issues most important to strategic planning for small transit agencies, and
4. To summarize long-range issues of a first-phase strategic plan for a transit agency in a small urban area.

DIFFERENCES BETWEEN SMALL AND LARGE TRANSIT AGENCIES

There are many differences between large and small transit agencies that have implications on the strategic planning process. A compilation of the primary differences between small and large transit agencies will serve as a precursor for designing a methodological approach for long-term strategic planning for small transit agencies. Although many of the factors that affect the planning process for large transit agencies also affect planning for small transit agencies, there are differences between small and large transit agencies that warrant special consideration for smaller agencies. These differences are enumerated here:

1. In most cases, small transit agencies do not have dedicated programs for developing strategic plans internally but rather rely on externally required planning processes, for example planning documents prepared by external agencies such as metropolitan planning organizations (MPO) and state departments of transportation and consultants, whereas larger transit agencies have organized planning divisions that perform planning studies on a regular basis (3).

2. A team planning approach is desirable and is used in most cases to develop a strategic plan for both large and small organizations (4). The only difference is in the composition of the team. Large transit agencies have separate departments for service planning, marketing, capital planning, corporate planning, and fare structuring. Executives from each department combine to form a team and to develop the required strategic plans for the agency, whereas small agencies must coordinate with other government and private agencies to form a team that would formulate and decide strategic decisions.

3. The availability of staff resources can have an important effect on the ability of a transit agency to implement a strategic planning process. Staff are needed to handle the logistics of such a comprehensive process, to coordinate discussion, to collect data, and to monitor implementation. Staff are also needed to conduct analyses, to synthesize findings, and to present options and their impacts. However, availability of staff resources is another factor that varies with agency size and therefore represents a limitation for smaller agencies.

4. Small transit agencies tend to have smaller fleet sizes, simple route structuring, and other characteristics of relatively small-scale operations. For this reason, few such agencies have conducted long-range plans and thus conduct strategic planning for the first time, whereas large transit agencies usually have a set framework for the strategic planning process. The complexity of the organization and its operations necessitate the development of long-range strategic plans, and availability of staff resources enables distribution of responsibility to implement and monitor the strategic plans.

5. Small transit agencies differ from large ones in the type of population they serve. Generally speaking, in large urbanized areas most of the population using transit are commuters and are motivated to use transit because of the high level of service (e.g., light rail), congestion on urban freeways and arterials, or limited parking within the city (5). There is usually little congestion in small urban areas, and ample parking space is usually available (5). This is a negative factor for transit operating in such areas because it has to serve principally the transportation disadvantaged and the elderly. Innovative ideas for improved level of service (LOS) are necessary to entice noncaptive riders to use transit in such areas.

APPROACH TO LONG-RANGE PLANNING FOR SMALL TRANSIT AGENCIES

“Strategic planning is the process of deciding on objectives of the organization or changes in these objectives, on the resources used to attain these objectives, and the policies that are to govern the acquisition, use, and disposition of these resources” (6).

In the context of transit, strategic planning is important to allow services to keep pace with demographic, social, economical, and political trends of a region. For example, in many metropolitan cities, some of the suburbs have emerged as employment centers.

Therefore, trip patterns in these cities cannot be characterized as radial but rather are significantly more complex. Transit agencies must anticipate and/or respond to such trends if services are to be high and operations efficient. Strategic planning is also important in providing a framework of goals, objectives, and priorities respond (i.e., generate and evaluate alternative actions) to unexpected events such as funding cuts, labor strikes, facility closings, and government regulation.

Strategic planning for small transit agencies may not involve a rigid procedure. A formal strategic planning process usually contains methodological steps, formulation of alternatives, comprehensive analyses and evaluation, and documentation preparation. Small transit agencies do not have separate departments to conduct planning at different levels of the planning process, so a team planning approach may be adopted. This approach is mostly used in all transit agencies (small or large) and is thus recommended for small transit agencies. In team planning, a chief executive officer (CEO) uses line managers as staff to develop plans (4). For example, in a small city the mayor could act as the CEO, and his staff may consist of representatives from various organizations in the area including the transit agency. For the strategic plan to be applied as an effective management tool, the focus of the effort should be on only a few critical issues. Similarly, some small transit agencies may be able to integrate transit plans into other city plans, thus using scarce planning resources and coordinating government services with transit services.

There are typically four stages that are important in the decision-making process: problem identification and definition, debate and policy formulation, implementation, and evaluation and feedback (5). The purpose of the planning process is only to provide information that is most important to decision makers (5).

The first stage in the decision-making process is problem identification and definition. The critical issue here is the way in which the problem is perceived and thus defined. The interaction between decision-making and planning is assumed to occur in the diagnosis of internal and external factors affecting the agency's performance. The mission statement, goals, and objectives are established by the management team and planning staff in the first stage.

The second stage in the decision process is debate and policy formulation. The decision is a choice among alternatives. The interaction between decision process and planning is assumed to occur in analysis and evaluation of alternative strategies developed in the planning process.

The third stage is the implementation stage. The planning process constitutes the establishment of budget to implement the strategies proposed in the second stage.

The fourth and final stage in the decision process is evaluation and feedback. The interaction between the decision process and the planning process is assumed to occur in monitoring the strategic program results and the external environment. Monitoring is necessary to correct any changes that might occur during implementation, and a feedback is necessary for further diagnosis of the changes.

The strategic planning methodology developed herein for small transit agencies is based on a theory of organizational planning developed by Ferris (7). It has been modified to accommodate the mission and structure of small transit agencies. The following steps were identified by Ferris as most critical:

1. The agency should scan the overall environment to identify major trends, issues, problems, needs, and opportunities that affect the organization. This step is particularly important because small

transit agencies usually have more outside the agency's control that threaten the health and survival of the agency. Significant forces external to small transit agencies that may be considered major trends and issues include economic, demographic, social, political, technological, financial, and legal forces (4).

These trends and issues give rise to problems that need to be solved by strategically planning on a long-term basis. Because of these external forces small agencies have tended to be more reactive than proactive in their decision-making. It is important for these agencies to establish a role in the decision-making of local governments, state agencies, commerce groups, and other important organizations. Some of the issues raised, which have more or less similar implications on many small transit agencies, are: changes in Federal funds and programs, changes in state policies and their unforeseen circumstances, interagency competition and its impact on funding levels, importance of communication, serious implications of deteriorating external relations, and vulnerability of transit service to political conflicts (1).

Not all factors are external to the agency. Significant internal issues include financial viability, quantity and quality of service, managerial and organizational effectiveness, productivity of human resources, technological capability, and marketing effectiveness. The analyses of these internal factors should result in an examination of the organization's strengths and weaknesses (4). Small transit agencies should address in their strategic plans the following internal issues and opportunities: identifying the training needs of staff, assessing how new technologies such as microcomputers could benefit the agency, improving financial accountability and efficiency, and clarifying individual responsibilities and the agency's structure.

2. The agency should clearly define its goals and objectives. Analysis of internal strengths and weaknesses and examination of external influencing factors should be the basis for the mission statement. The mission statement should then be broadened and clarified by defining specific goals and objectives. For example, part of an agency's mission may involve improving the image of transit in the region. A corresponding goal might be to improve the system level of service. An objective should have a measurable end; hence a corresponding objective might be to decrease headways on selected routes. Small transit agencies should develop a specific strategy and action plan to deal with the external threats they face. A formal document that outlines internal needs and objectives and addresses service levels, capital plans, and other issues should be developed. The mission and goal statements should be communicated widely to create common expectations among financial contributors. Following a team approach and clarifying responsibilities among agency staff, a professional approach to management can be attained, and the agencies can handle any crisis (1).

3. The next step is the development of a strategy that defines how the stated objectives will be met. Strategies should be consistent with the stated mission and goals. The agency should attempt to delegate the resources necessary to implement the strategy. Key staff within the agency should be involved in the implementation. Strategies should be evaluated in terms of several criteria such as cost, personnel requirements, agencies and organizations involved, time frame, impact on the environment, and legal implications (4). In the case of small transit agencies strategies must be developed by key individuals who are familiar with the external environment. Market orientation should be the approach throughout strategy development, and the agency must segment its market in terms of users, geography, demography, and other criteria.

4. Implementation is the next crucial step to successful strategic planning. It is operational in nature and involves coordinating, managing, and motivating many individuals. For successful implementation, top managers must communicate with all employees what the strategic decisions are about. Strategies must not be poorly conceived; otherwise they will fail. A detailed implementation plan must be prepared that identifies specific tasks, responsibilities, and likely implementation problems. Also, no significantly implementable strategies should be approved without ample opportunity for public review and comment. Citizens, particularly those with specially affected interests, should have a say in choosing the forms and amounts of public transportation services they will have. Transportation should help to redress income differences, mobility should be available to all, and prices should reflect social costs.

5. The final task for strategy implementation is the monitoring and evaluation of the progress through periodic feedback. In monitoring, it is important to identify change in the external environment involving fundamental forces affecting the agency. It should also identify any unforeseen strengths and weaknesses of the agency and their implications. Subsequently, any modifications in the objectives are made.

SMALL URBAN AREA PUBLIC TRANSPORTATION CASE STUDY

The focus of this paper has been on the need and possible approach for long-range planning for small transit agencies. The Harley O. Staggers National Transportation Center at West Virginia University recently completed a first-phase in the development of a long-range transportation plan for Kanawha County, West Virginia. Though the study was not wholly strategic in nature, the identified issues incorporated several strategic planning elements. Some of the trends, initiatives, needs, and opportunities identified in the Kanawha Valley region had potential implications on the quality and scope of public transportation.

The population of Kanawha County is approximately 200,000 [Kanawha Valley Regional Transportation Authority (KVRTA), Charleston, West Va.] The heart of the county is the small urban city of Charleston. The city of Charleston is a Class I city and is the largest in West Virginia. It is the most populous with a population of approximately 60,000. Charleston has earned the reputation of a growing industrial area, and efforts are being made to redevelop the central business district (CBD) to attract more businesses. It is the home of several cultural groups and is the location of the state capitol, Capitol Complex, Cultural Center, the University of Charleston, community centers, and various neighborhood recreation centers. The city has a diversified activity system and thus also has major public transportation issues. Kanawha County comprises 908 mi² of hilly terrain bisected from southeast to northwest by the Kanawha River.

Most of the county's population and the commercial and industrial development are located in the floodplain of the Kanawha River and in the Elk and Coal river valleys. Major highways also follow these rivers. The county is well served by highway facilities with three Interstates converging in Charleston. The private automobile is well established as the major means of transportation. Parking is generally available in the Charleston CBD and other employment centers (Regional Intergovernmental Council, 1990). Public transportation is provided by the KVRTA for Kanawha

County. The impetus of the study was the confrontation of numerous regional, state, and national trends of the KVRTA with the quality and scope of the public transportation they provide.

A summary of the trends, needs, and opportunities identified by the study team is discussed here. The issues applicable to small transit agencies in general are discussed first followed by those issues that are more area-specific. The first-phase study involved the identification of long-range planning issues based on potential economic and social trends. The scope of public transportation options were examined based on the needs and opportunities. Several recommendations were provided under each issue, which required a detailed analysis and would constitute the second-phase study.

Some of the general issues identified by the study team include the Clean Air Act Amendments of 1990 (CAA), Americans with Disabilities Act of 1990 (ADA), and ISTEA. Passage of these laws has had a significant impact on the transportation planning and project development processes (8).

CLEAN AIR ACT OF 1990

The intended purposes of the CAA is to bring air quality nonattainment areas into attainment areas. Charleston is designated as a moderate nonattainment area for ozone. Consequently, all city and regional transportation plans and programs must perform additional analyses to show that their projects will result in pollution reduction. Also, at the state level, West Virginia must develop a state implementation plan (SIP) involving an inspection and maintenance program for vehicle emissions and other measures to reach attainment within 6 years. Four critical issues related to compliance were identified: hardware solutions, alternative fuels solutions, use of methanol fuel in public transportation, and behavioral changes on planning committees and the public to reduce both the level of traffic and the level of congestion on the highways. The key point here is not just compliance of agency with the guidelines of the act but its response to the changes in public attitudes and perception. For example, the public perception of the CAA is to have a clean, pollution-free environment, and hence the population would expect the transit agency to provide clean service. This may have implications on the transit industry if not considered.

AMERICANS WITH DISABILITIES ACT OF 1990

The intended transit purpose of the ADA is to allow access to all people with disabilities to public transportation services and public facilities without discrimination. ADA also requires that any public transit agency operating as a fixed-route system provide paratransit services for disabled individuals to access the system. KVRTA has submitted a paratransit plan that includes descriptions of a fixed-route system, existing and proposed paratransit systems, a proposed eligibility determination process, and a public participation process used to develop the plan.

INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT OF 1991

The intended purpose of ISTEA is to promote a "more intermodal transportation system," and it attempts to shift responsibility for

making fundamental transportation decisions from the Federal level to state and local levels. The changes allow for a greater flexibility in the role of state and local governments to shift resources between highway projects and mass transit. Greater flexibility in funding for transit provides an opportunity for transit operators to develop the efficient transportation system necessary to meet existing and future travel needs. Identification of future transportation needs through a long-range transportation plan is a prerequisite for the development of a TIP by the MPO, which is a major planning document for securing federal funds.

Small transit operators need to approach these issues by ensuring that they have a long-range strategic plan that addresses all three of the acts. Otherwise, given so many directions in which to plan, it might be a difficult task to comply with all the provisions of the acts.

DECREASE IN TRANSIT RIDERSHIP IN KANAWHA COUNTY

Most transit operating in the United States faces ridership crises or a potential decrease in ridership. In small urban areas such as Charleston, several causes for reduced ridership include declining population, rising unemployment, and abundance of downtown parking. Stabilization in fuel prices, improved fuel efficiency in vehicles, and sub-urbanization are causes, at the national level, for such decreases in transit ridership. A key aspect in the long-range transportation study for KVRTA was to identify these decreasing ridership trends and to possibly establish innovative approaches to increase ridership. Some strategic planning approaches suggested for small transit operators in general include: (a) an understanding of the decreasing ridership problem, (b) an analysis of the problem, (c) data collection for developing transit service alternatives, and (d) implementation and monitoring.

Some of the area-specific issues identified in the long-range transportation study include congestion on Interstate 64, economic developments in downtown Charleston, the proposal for a new southwestern West Virginia regional airport serving Charleston, Huntington, and Parkersburg, and decreases in transit ridership in Kanawha County (8).

CONGESTION ON I-64

The major Interstate highways I-64, I-77, and I-79 intersect in the Charleston metropolitan area. These Interstates provide local area communities access to the nearby metropolitan areas of Huntington, Parkersburg, Clarksburg, Beckley, and many other distant cities. The congestion problem identified was on I-64 between Charleston and Huntington. The traffic levels on the interstate often exceed the design level during weekday commuting hours, which results in congestion mainly at key bridges and interchanges. Public transportation use has been identified as a solution to the congestion problem on I-64. The use of public transportation on the interstate would add to the capacity and as a result there would be reduction in congestion. Generally speaking, the problem of congestion is present in most urban areas, and transit use has evolved as a major part of its solution. Some long-range strategic issues identified by the study team that can be combined with transit use include: (a) large and small scale improvements to the transportation system according to the local needs and nature

of economic and social growth, (b) priority facilities for transit and high-occupancy vehicles (HOV) in the form of HOV lanes on Interstates and priority entry control on freeway entry-ramps, and (c) integration of park-and-ride facilities with transit providing access to employment centers and the CBD. These issues need to be considered by small transit agencies in developing a long-range plan.

ECONOMIC DEVELOPMENTS IN DOWNTOWN CHARLESTON

Revitalization efforts under way in Charleston require the provision of a personalized, convenient, efficient, and safe internal ground circulation system to expand the capability of people to move about in a more active CBD. Some of the strategic planning elements of importance to small transit agencies that were proposed for KVRTA include (a) an understanding of the land use developments within the CBD, (b) an understanding of demand for public transportation because of existing and proposed land use developments, and (c) coordination between the transit operators and organizations involved in the land use developments. It is critical for the transit operator to understand the land use-transportation relationship before generating alternative transportation facilities. The activity system comprised the "activity centers" within a region. Activity patterns refer to the type of activity centers, which include employment, cultural, recreational, retail, and visitor bases. Travel decisions of people from the activity centers results in a variety of trips between the activity centers. This gives rise to demand for a transportation system that provides access within the activity system.

PROPOSED SOUTHWESTERN WEST VIRGINIA REGIONAL AIRPORT

The concept of a Southwestern West Virginia Regional Airport to serve Charleston, Huntington, and Parkersburg has been under consideration for several years. The provision of public transportation service to airports has received increased attention in recent years, so the study team identified the necessity to integrate transit with the proposed regional airport. Even though this is a location-specific issue, it can be considered a potential opportunity that needs careful attention of transit managers of small transit agencies. Two critical strategies identified in this issue are (a) a close coordination between the transit agency and the airport authorities *during* the planning stages of the airport construction, (b) proper planning by the transit operators for providing fast, convenient, and inexpensive transit services to air passengers, and (c) planning expansion of services for future increases in demand.

SUMMARY AND CONCLUSIONS

The summary of long-range planning issues addressed for KVRTA reflects some of the strategic planning issues important to a small transit agency. Recent legislative initiatives such as the CAA, ADA, and ISTEA affect the planning process of the small as well as large

transit agencies. However, several differences between the large and small transit agencies, discussed earlier in the paper, make the approach to planning different for small transit agencies. The difference here is that small transit agencies depend on externally required service planning documents to develop an internal strategy. Dependence on externally required service planning documents can be overcome by assessing strategic factors affecting the agency's long-term success in terms of strengths, weaknesses, opportunities, and threats (4,9).

In developing a long-range plan, the agency should first assess its strengths and weaknesses. For example, compliance with the ADA would require coordination between transit and paratransit providers. An agency might do well in providing transit services to the local population, but lack of coordination with paratransit operators could result in inadequate performance. An agency must also explore opportunities that might lead to its future growth and success. Steps should also be taken to overcome factors that threaten the agency's ability to carry out its mission. Economic and social trends, demographic changes, and political influence within the agency's service area should be of primary concern to the small transit operator. For example, the revitalization process in downtown Charleston represents a potential change toward the betterment of the society and the economy.

Subsequently, travel patterns could be significantly altered possibly requiring a change in transit service characteristics and service levels. Thus, coordination among transit officials, local government officials, and other organizations was identified as a necessary tool to determine future needs of the area and a role of transit in meeting the needs of the population.

Some of the internal issues that may pose problems to a small transit agency include financial viability, quantity and quality of service, managerial and organizational effectiveness, productivity of human resources, technological capability, and marketing effectiveness. To overcome these threats, the agency should have a proper direction, and coordination within the agency is a key element. Development and implementation of strategies can be attempted only by overcoming these threats. In general, proper coordination, management, and motivation of individuals within the agency are solutions to overcome internal threats. The team planning approach, discussed earlier, is the best approach to strategy development by small transit agencies. Local government officials and representatives from other organizations are usually involved with the transit agency in developing a detailed implementation plan identifying tasks, responsibilities, and likely implementation problems.

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