Coordination of Public Transit and School Bus Transportation Programs: Results of Pilot Projects in Six Iowa Communities

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In 1982, the Iowa General Assembly directed the Iowa Department of Transportation to study the feasibility of coordinating public transit services and school transportation programs. Between 1983 and 1985, pilot projects were successfully implemented in six Iowa communities. Four of the projects were located in urban areas and involved shifting students from school bus transportation to city transit services. While school bus transportation generally costs less, it was found that in some cases (as when excess capacity exists on public services) public transit services are more cost effective. Two of the projects were located in rural areas and involved coordinating the operations, maintenance, and purchasing functions of school districts and public transit systems. The participating agencies in both rural projects saved on costs. While the concept of transportation coordination was found to be feasible in all six areas, there are significant legal and institutional barriers to be overcome in each case. Public policy in Iowa has encouraged, and in some cases mandated, coordination between transportation operators, and the public has benefited from such policy.

It is often perceived by policy-makers and public alike that the lack of coordination of publicly supported transportation services is inefficient and wasteful. A frequently cited example is that of a school bus and public transit bus following each other down the same street as they serve the same area of a city or town. In reality, while coordinating services may reduce public expenditures for transportation, there are several significant institutional, regulatory, and operational barriers to be overcome in each case.

In 1982, the Iowa General Assembly directed the Iowa Department of Transportation to study the feasibility of coordinating public transit services and school transportation programs. The authors, in response to this directive, developed and implemented pilot projects in six Iowa communities between 1983 and 1985. Four of the projects were in urban areas (Dubuque, Burlington, Sioux City, and Ottumwa) and involved shifting students from school buses onto public transit vehicles. The other two projects were in smaller towns (Nashua and Spirit Lake) and focused on coordination of operations, maintenance, and purchasing.

The purpose of this paper is to report the results of these six pilot projects. In section 2 of this paper, previous results of school bus and public transit system coordination are described; in section 3, relevant statutes and regulations are discussed, and in section 4, the pilot projects are summarized. The findings of the study are presented in the final section.

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PREVIOUS SCHOOL BUS–PUBLIC TRANSIT COORDINATION

In most cities and rural areas in the United States, transportation services are provided by separate organizations rather than by a single agency. Each transportation provider has its own administrative structure, budgeting process, capital development program, cost structure, and labor practices. While city transit and paratransit systems have worked together to some extent, school districts have often operated in a completely separate environment. This is partly due to the evolution of school bus safety standards and funding, and to the assignment of administrative responsibility to separate state agencies, one responsible for school transportation and one for all other transportation operations.

There have been, however, several projects involving the coordination of the transportation programs of public transit systems and school bus operations in the United States. These projects can be divided into two categories.

The first category includes the use of school buses for nonpupil transportation (*1,2*). These projects generally provided transportation for elderly or disabled persons, and were usually implemented in areas where regular public transit service did not exist. Often the success of these projects led to the establishment of a government subsidized or private nonprofit transit operator to provide the service.

The second group involves the use of public transit buses for pupil transportation (*3,4,5,6,7*). Before the advent of yellow school buses, most students in the United States used regular public transit services to travel to and from school. As cities grew and travel patterns changed, public transit services became less relevant to the needs of pupil transportation programs. As costs have increased in recent years, however, there has been a growing interest in investigating the feasibility of shifting pupils from school buses to public transit buses. Some school systems have contracted with public transit systems to transport students, despite federal rules restricting these practices.

STATUTES AND REGULATIONS

There are several federal and state statutes and regulations pertaining to the coordination of school bus transportation

and public transit. At the state level, Section 601j of the Iowa Code encourages coordination of transportation services by requiring that all purchasers and providers of transportation services, except school districts, coordinate their actions through the Iowa Department of Transportation.

Several sections of this code deal with pupil transportation and the uses of school buses. Local school districts have three options for transporting their students: they can transport pupils directly in yellow school buses, contract with common carriers to provide the service, or reimburse parents for transportation costs. This provision allows a school district to contract with a public transit operator to transport students to and from school, with the school district reimbursing the transit system for the cost of providing the service. The code exempts urban transit buses from meeting certain vehicle standards such as the use of flashing red lights and stop arms. However, other requirements are imposed on the transit operator according to whether the service is used exclusively for pupils. If the service is used exclusively for pupil transportation, the transit operator must, among other things, add temporary school bus signs to the bus, load and unload pupils according to certain requirements, provide seats for all passengers, conduct daily vehicle inspections and reports, and ensure that all drivers possess school bus driver permits and receive special training.

The way in which school districts receive state funds for pupil transportation is also an important consideration. Under Iowa law, each district receives a lump sum from the state with no set amount earmarked for transportation. Thus, districts that are able to reduce the cost of pupil transportation have more money to spend on materials, instruction, and other expenses. This point is important because it strengthens the incentive for school districts to participate in cost-reducing transportation coordination programs.

The issue of exclusive school service is also critical in the federal regulations governing public transit systems. The Urban Mass Transportation Administration (UMTA) specifically prohibits transit systems which receive federal funds from providing exclusive school service. The objective of this regulation is to ensure that transit operators use their resources to serve the general public and refrain from competing unfairly with private school bus operators. The regulations do allow transit systems to operate special school tripper service that is nonexclusive (that is, general passengers are allowed on the buses) and part of regular route service. UMTA has also allowed one transit system (Des Moines, Iowa) to provide exclusive school service after the system agreed to buy out the depreciated federal interest in the buses used for the service.

DESCRIPTION OF THE PILOT PROJECTS

Four pilot coordination projects were implemented in urban areas of Iowa (Dubuque, Sioux City, Burlington, and Ottumwa), each involving the shifting of students from school buses to public transit buses. Project objectives were to reduce the transportation expenditures of the school district, and to increase ridership and revenue for the transit system.

The projects were developed using the following steps. First, groups of student eligible for school bus transportation were identified geographically. Second, potential services that could be provided by the public transit authorities were identified. Finally, these market groups and services were matched.

While there was some interest in shifting the entire pupil transportation program to the public transit systems, it soon became apparent that this was not economically feasible. The major elements that make up the cost structure of the two agencies favor the school district. For example, the school district usually has lower operator labor rates, higher vehicle capacities, a larger bus fleet, and lower per-bus capital costs. In Burlington, Iowa, for example, the cost per seat-hour, a rough measure of the cost of providing service, was 63 percent lower for the school district than for the public transit system ($.21 vs. $.56).

While complete consolidation was not feasible, it was possible to shift some students onto city transit buses where such services already existed with excess capacity. Here, the public transit system had a fixed investment in service and it thus could "sell" its excess capacity to the school district at only marginal costs. This concept proved successful in each of the four urban areas studied. The number of students involved ranged from 200 to 320, while annual cost savings varied from $12,000 to $30,000.

Two projects were implemented in rural areas. In Nashua, Iowa, the pilot project included shared fuel purchasing and service provision. The cost savings of $3,500, although small, were significant for the school district. In Dickinson County, in Northwest Iowa, the school district contracted with the RTA to provide all maintenance for school district buses, resulting in a $6,500 annual savings and an improvement in the quality of maintenance.

FINDINGS

There are seven major findings than can be drawn from the pilot projects:

1. The success in implementing pilot projects in each of the six study areas supports the notion that there are opportunities for transportation coordination throughout Iowa. In urban areas, there is a potential for shifting students from school buses to city transit buses. Although the general cost structure of school districts and city transit operations generally favors school districts, in certain instances it is more cost effective for a city bus system to provide this service. These situations usually occur when the city bus system has excess capacity, when student travel patterns coincide with city bus routes, and when changes (e.g., minor rerouting) in the city bus routes are possible. In small towns and rural areas, opportunities exist for school districts to either coordinate various aspects of their transportation programs among themselves or to coordinate with the regional transit authorities.
2. The philosophy followed in each study area proved successful. That is, it was important to focus on a small project that had a high chance for success and that could be implemented with the support of agency staff rather than developing a larger project (with potentially larger benefits) that would be less likely to gain such support and be unmanageable as a first effort. Once a pilot project was successfully underway, larger projects with greater benefits could then be pursued.
3. The most difficult barrier to coordination is institutional.

More generally stated, there is a high resistance to change among institutions and the persons served by these institutions. While the project philosophy described above was felt to be critical in all of the pilot projects, the size of the projects also meant that the benefits accruing would be small at the beginning. Thus it was often difficult for some agencies to justify their participation simply because the benefits that they would initially receive would be small in comparison to the energy that they must put into implementing a project. In addition, lack of a long-term commitment to coordination was apparent in most of the pilot project areas. While generally agreeing that coordination was a "good idea," most areas lacked one person or group who was truly committed to incorporating the concept of coordination into the normal operating procedures of the local agencies involved in the pilot projects. Such a long-term view is critical if pilot projects are to survive more than just their trial period of operation. It is often necessary, therefore, to have an outside "change agent" responsible for developing a concept and working with the local agencies to implement it.

4. At the state level, there are several legal barriers to coordination that should be examined. First, strict adherence to the transportation level of service standards required by the State Department of Public Instruction for all age groups and all operating conditions should be studied. Two examples are the requirement for a seat for all passengers and the loading and unloading procedures. It is not clear that regulations for high school or junior high school students should be the same as for elementary school students, particularly when city transit buses are used for pupil transportation. Similarly, operating conditions in urban areas are different from those in rural areas, and the regulations should reflect these differences. Second, restrictions on vehicle usage for pupil transportation should be examined. Currently, if the service is nonexclusive, the only requirement is that the transit bus pull completely off the roadway to pick up or drop off a student. If, however, the service is exclusively for students, a number of requirements apply, including the installation of temporary "school bus" signs, state vehicle inspections, and the requirement of school bus operator permits for drivers. The difference in the service lies in the definition of its nature (exclusive vs. nonexclusive), rather than in terms of actual student safety. Another area to be explored is the prohibition of the use of large vans for pupil transportation. It is not clear why vans are judged safe for elderly and handicapped passengers but unsafe for students.

5. The federal regulations governing public transit operation of school bus services are ambiguous and probably not applicable to public transportation in Iowa. The primary reason for UMTA rules (i.e., to ensure that public transit agencies subsidized with public funds do not compete with private school bus operators) apply to few Iowa school districts.

6. In Iowa, improvements in transportation efficiency have been achieved though increasingly stringent requirements for interagency coordination, at both state and local levels. Currently, the only transportation provider not involved in this process is the school district. It is critical to bring school transportation programs into the planning process if the benefits of service coordination are to be achieved.

7. There are other costs that need to be considered in coordination: agency time, change of procedures, public reactions, union rules and reactions, and unemployment costs.

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