

forcing consolidation of expenditures of social service funds for transportation. However, because the various agencies depend heavily on disparate federal sources that have differing funding cycles, reporting requirements, and auditing practices, it seems unlikely that the states will initiate consolidation in the absence of federal legislation that makes it financially attractive to do so.

The potential payoff to such consolidation of funding at the local level is evident from an example of local funding consolidation supplied by the National Association of Counties. The table below (2) (1 km = 0.6 mile) illustrates the possibility of funding realized from nine sources, as well as fares, in Miami County, Ohio.

Source of Funding	Amount (\$)
CETA (7 drivers)	31 399.00
Charitable donations	200.00
Fares [from public at 9¢/km (15¢/mile)]	59.15
Title XX	4 722.92
Children's services	41.55
Rehabilitation Programming, Incorporated	309.75
Welfare Department compact	10 106.50
Board of Mental Retardation (Riverside School)	492.00
Community Action Council	
Title III of Older Americans Act	723.60
Program account 05 of Community Service Administration	685.45
Total	48 765.64

The benefits of forming a rural transportation authority are derived from the enlargement of the fleet size, the increased ability to handle dispatching, and the possibility of increased ridership per vehicle.

SUMMARY AND CONCLUSION

The purpose of the current study was to determine the extent to which states are spending nonfederal funds in support of public transportation in nonurban areas. Nearly half of the states in the sample used state funds for these purposes. In the states where these funds had already been appropriated, the trend over the last 3 years has been sharply upward.

The upward trend in expenditures for public transportation in nonurban areas should not obscure the great diversity among states in funding levels, legal restric-

tions on fund use, and future outlook on funding for public transportation. States that do not have funds (and thus cannot, except at the local level, match federal funds) are characterized by lower incomes per capita, lower tax efforts, and lower percentages of urban population and are likely to be located in the South or the West. The have-not states have higher than average expenditures per capita for highways and have been experiencing a decline in public transportation in the private sector and, consequently, have an increasingly transportation-dependent population in the rural communities.

The special needs of the transportation dependent are most frequently met through large outlays of state and federal funds for specialized client-oriented transportation. These systems are typically unrelated to the overall state transportation planning process; indeed, many state transportation planners do not know how much special transportation occurs in rural areas nor how much money supports it. The figures given in the current study were derived by direct communication with the social service agencies in a variety of states in 1977.

The findings of the study suggest the following needs: (a) a Congressional inquiry into the total funding picture in isolated rural communities; (b) legislation that would make transportation more evenly available throughout the country; and (c) incentives that would bring the unrelated facets of transportation into a broader, connected system. Multicounty programs to provide coordinated service for a variety of social service agencies' clients should be costed out against current single-agency approaches. New legislation to make funds available for public transportation in nonurban areas may be the means for bringing about such service improvements.

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Private Enterprise Techniques Improve Productivity of Rural Transit Systems in Iowa

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The primary objective of the Iowa Department of Transportation rural transit program is increased productivity—to be able to produce more output (passengers carried) while using less input (money). When the department assumed control of rural transit in 1976, it

became obvious that traditional methods of developing rural transit would hinder, if not actually negate, progress toward the objective of improved productivity. Consequently, the private enterprise philosophy of management was implemented. This philosophy dictated the

consolidation of the 275 rural transit systems into 16 systems and the elimination of nonproductive systems, provided authority equal to responsibility, holding specific people and agencies responsible for results, and implemented management and business decisions into an area of social work. The results, after 3 years of effort on a statewide basis, show that the output has increased by 33 percent and the input has decreased by 10 percent. The implications of these results are that transit in general (urban, rural, or intercity) can benefit from consolidating authority and responsibility, managing by objectives, and making decisions that are based on economic and productivity analyses.

At first glance, it may seem contradictory to speak of transit organizations and services in the same context as private enterprise corporations. We are all well aware that transit systems in general, and rural transit systems in particular, are not capable of producing profits and that profits are the objective of private enterprise corporations.

However, the private enterprise philosophy of management could be as effective in achieving the human and social objectives of rural transit as it has been in achieving the financial objectives of private enterprise. In fact, the most serious deficiency of rural transit in general is the lack of understanding and use of corporate management techniques such as consolidation of resources; leveraging of capital assets; long-range planning; development of new markets for existing services; increasing the output of existing investment; designation, delegation, and consolidation of authority; identification of responsibility; synergism; commitment to specific goals and objectives; and investment in personnel training and upgrading.

The history of rural transit in Iowa is probably not dissimilar to the past and present development of rural transit throughout the rest of the nation. The remainder of this discussion will deal with the following areas:

1. Problems associated with the historical development of rural transit in Iowa,
2. Suggested solutions for overcoming these problems,
3. Actions taken to achieve these solutions,
4. Benefits obtained,
5. Obstacles encountered, and
6. Future directions.

PROBLEMS ASSOCIATED WITH HISTORICAL DEVELOPMENT OF RURAL TRANSIT IN IOWA

Rural transit in Iowa grew out of a need for transportation services for those who are generically referred to as the transportation disadvantaged. Although there was a need for some form of transportation for persons such as the elderly, the handicapped, the poor, the jobless, and children, no single state agency was given primary responsibility to fulfill this need. Consequently, various state and local agencies whose primary responsibility was for human resource programs quickly came to the logical conclusion that such programs have little impact if their clients cannot travel and thereby receive their benefits such as a congregate meal, medical attention, a Head Start education, or a job interview.

Therefore, each agency saw the need to provide transportation for its individual clientele as a matter of self-survival. Rural transit became an individual agency means to an individual agency end. In light of the fact that no one else was going to help them, these human services organizations deserve credit for their

initiative in solving the problem. However, as more and more agencies began to see the solution, fewer and fewer failed to see the problem. Rural transit shifted from being a means of reaching an end to being an end result in itself—rural transit became a program.

In fact, more than 275 rural and special transit systems developed in Iowa. Some of the problems associated with this rapid growth and the subsequent development of territorial prerogatives on the part of various human service agencies were (a) the my-own-bus syndrome, (b) lack of perspective of the total transportation system and available resources, (c) inefficiency and underuse of capital resources, (d) inefficient use of personnel, (e) duplicative expenses, (f) market competition in a limited market place, (g) inequity of service availability, (h) lack of accountability, (i) inconsistency between public and individual needs and services, (j) lack of future direction and plans, (k) potentially unlimited financial demands on limited financial resources, and (l) lack of authority.

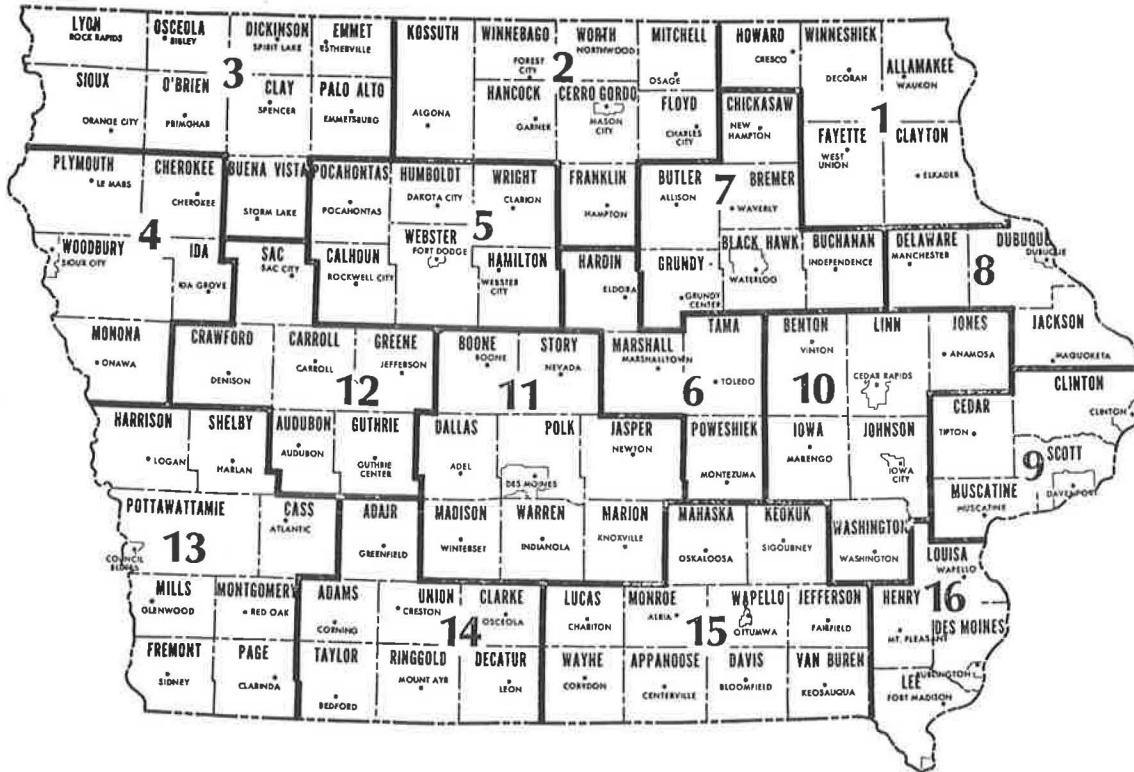
SUGGESTED SOLUTIONS FOR OVERCOMING PROBLEMS

The Iowa Department of Transportation (IDOT) was formed in January 1975 and given the responsibility that had previously been lacking—the development of a total transportation system that would fulfill the needs of Iowans through the effective coordination and consolidation of the various subsystems, i. e., to manage the transportation system such that the total is greater than the sum of its parts. The public transit division developed the concept of the regional transit system (1) in November 1975 after studying the problems associated with the previous development (and neglect) of rural transit systems.

The regional transit system concept is based on the following goals and proposed solutions:

1. To provide an equitable distribution of public transit services throughout the entire state—(a) The state is divided into 16 multicounty transit districts (see Figure 1), (b) the county supervisors mutually agree on one transit agency per region, (c) locally elected officials decide on the service level and the local funding, and (d) service is available to the general public as well as to elderly and handicapped;
2. To eliminate duplicative expenses and services—(a) There is only one agency per region, (b) administrative and overhead expenses are consolidated into one agency, (c) vehicles are available for multiple use rather than for single use only, and (d) existing resources are used rather than new services started (e.g., taxicabs, intercity buses, private businesses, public agencies, car pools, and van pools);
3. To improve management—(a) Responsibility and authority are consolidated in one agency, (b) rural transit is the single objective and sole job of its managers, (c) the specific system objectives are mutually determined at the local level but based on statewide and previous local performance indicators, and (d) a single regional plan is developed and agreed to at the local level that encompasses all forms of public transit;
4. To improve financing—(a) The single multipurpose regional transit agency has access to multiple state and federal funding programs versus single purpose-single funding, (b) expenses are reduced, (c) market (revenues) are expanded, (d) financial reports to all state agencies are consolidated into a single report to IDOT, and (e) federal funds are used

Figure 1. Iowa transit regions.



where state and local funds were previously used;

5. To improve local commitments and long-term continuity—Long-range plans and finances are developed and agreed to at local level before the fact (no surprises); and

6. To improve services—(a) A single agency provides one-stop shopping, (b) the system is designed for multiple use (including the general public) based on local plans and public input, (c) there is expanded market coverage for intercity buses (the regional system provides feeder service to intercity buses), and (d) intercity services can eliminate frequent stops (because of the feeder service) and provide intercity trip times that are close to express (or automobile) trip times.

ACTIONS TAKEN TO ACHIEVE SOLUTIONS

Once the problems had been identified and solutions proposed, it was necessary to take action to ensure that the solutions would be accepted and implemented. Otherwise, the entire program would remain merely a concept.

The following actions were taken to implement the regional transit system concept:

1. The concept was included in the statewide transportation plan and presented statewide over public television in November 1975;

2. Public hearings were held and input was received from November 1975 to February 1976;

3. The concept was published by IDOT as a commitment for future direction; and

4. Legislative action was taken—(a) The appropriations to IDOT for transit purposes (1) left complete discretion to IDOT on the use of funds and (2) contained a nonreversionary clause permitting the IDOT

to add savings to future appropriations and (b) the passage of the administrative bill (2) required that (1) all applications for state or federal funding go through IDOT; (2) no local, state, or federal funds are spent on transit in Iowa unless in conformance with the IDOT state transit plan (regional systems); (3) IDOT (or a designated recipient) receives and distributes federal aid; (4) IDOT provides technical and management on-site assistance to transit properties (for purpose of consolidating, coordinating, and improving services and management); and (5) IDOT provides recommendations to the legislature each year on actions necessary (to improve the consolidation, coordination, and efficiency of transit programs at the local and state levels).

After receiving input from the public and subsequently informing the public of future direction of public transit, it was necessary for IDOT to then take action toward developing administrative rules:

1. Financial assistance (3)—(a) Only regional systems are eligible as recipients of local, state, or federal aid; (b) a 5-year plan is required that addresses the economic and service analysis of various alternatives; (c) financial assistance is based on a quid pro quo in which system objectives and actual accomplishments assist in determining the amount of funds awarded; (d) a contract is signed that identifies specific performance standards and objectives along with specific financial assistance budgets; and (e) state agency funding other than IDOT plus federal funding is used to finance the agreed-upon programs [21 different funding services were consolidated and used to support the regional transit programs (4)] and

2. Technical and management actions—(a) Each property was assigned a staff member from the public transit division to act as a management consultant for

assistance in organization, planning, grants, schedules, routes, budgeting, service improvements, marketing, financial operating statements, accounting procedures, and strategy plans for reaching predetermined objectives; (b) statewide training seminars were developed and conducted for one or more regional managers and their staffs and policy makers and addressed both the management and staff functions in areas that needed greatest assistance (these needs were discovered from an on-site analysis of all transit properties in Iowa and included management and policy makers' training in establishment of goals for policy makers, measurement and analysis of performance, employee selection, and economic and management benefits gained by consolidation and employee training in bus operations, mechanics and servicing, dispatching techniques and procedures, writing specifications for purchase of services and capital equipment, and identifying with and gaining ridership); (c) a complete transit library was developed that included programmed-instruction management courses, audiovisual aids, and written material (such as reports, plans, and research); (d) a statewide computerized data bank was developed that provides real-time access to a complete file of property information ranging from the general manager's name to how the property is performing against established objectives and how it compares against other properties in the state; (e) a statewide marketing program was implemented that included statewide market research, a marketing manual and seminars, television and radio spots produced and distributed by IDOT, posters, brochures, newspaper advertisements, a statewide transit service directory, and an education program for school children; and (f) planning assistance was offered that included completion of the regional plans, implementation of alternative-analysis guidelines and procedures, completion of the state transit plan, and a study of the intercity bus industry.

Thus, within the constraints of time and money, everything possible was done to set the stage for the most important action: sixteen functioning regional transit systems covering the entire state of Iowa were organized and implemented. This process was started in the first quarter of 1976 and, on July 1, 1978, public transportation was available to all Iowans, both those who lived in the city and those in the country.

BENEFITS OBTAINED

The real test of an idea—the proposed solutions and the actions taken—rests with the bottom line—the benefits obtained.

The table below compares data collected during 1976 in an area that adopted the regional concept (region B) with those in an area that continued to allow various local transit systems to do business as they pleased, without regard to an overall transit program for the region (region A) (1 km = 0.6 mile and 1 km² = 0.38 mile²).

Data	Region A: Separate Systems (avg. per county)	Region B: Coordinated System (avg. per county)
Operating		
Passengers	4808	8018
Service, km	36 096	35 744
Number of vehicles	1.4	1.8
Number of overhead personnel	1.6	1.2
Number of drivers	1.80	1.54

Data	Region A: Separate Systems (avg. per county)	Region B: Coordinated System (avg. per county)
Population density, persons/km ²	15.1	12.9
Financial, \$		
Total expenses	23 722	18 390
Revenue	4885	3395
Overhead expense	8444	3361
Operations expense	13 314	12 584
Payroll	17 200	12 195
Derived		
Overhead, %	36	18
Expense per passenger, \$	4.93	2.29
Expense per km, \$	0.66	0.52

It is interesting to note that the primary difference in total expenses (\$5332) can be attributed to administrative and overhead expenses (\$5083). Regional systems consolidate administrative and overhead expenses and thereby reduce costs. However, even with the reduced costs, the regional systems haul more passengers (8018/county versus 4808/county) over a similar number of kilometers. In addition, the number of drivers per vehicle is less (0.8 versus 1.3), reflecting reduced operating expenses.

The table below compares, on a statewide basis, the productivity of the statewide regional transit system program (1977) with the productivity of the various systems that operated in Iowa before the regional transit system concept was implemented (1975) (1 km = 0.6 mile):

Item	Value	Item	Value
Passengers		Deficit	
1975, no.	685 000	1975, 1977 \$	1 569 902
1977, no.	910 840	1977, 1977 \$	1 550 221
Change, %	+33	Change, %	-1
Revenue travel		Deficit per ride	
1975, km	2 851 200	1975, 1977 \$	2.29
1977, km	3 841 358	1977, 1977 \$	1.70
Change, %	+35	Change, %	-26
Service		Systems	
1975, km/capita	1.01	1975, no.	275
1977, km/capita	2.14	1977, no.	24
Change, %	+113	Change, %	-89
Expenses		Ridership per capita	
1975, 1977 \$	2 077 812	1975, no.	0.25
1977, 1977 \$	1 870 129	1977, no.	0.53
Change, %	-10	Change, %	+112

The statewide productivity of regional transit systems is obvious. Service has been extended to more areas (revenue kilometers increased by 35 percent), which has resulted in more passengers (a 33 percent increase) riding transit and, at the same time has reduced expenses for the overall system by 10 percent and for the individual rider by 26 percent. Not to be overlooked, also, is the reduction in bureaucracy: Twenty-four agencies are now producing more tangible results than the previous 275 agencies combined. For most Iowans, public transit is now one-stop shopping at a single agency that is readily found.

OBSTACLES ENCOUNTERED

The development of regional rural transit systems in Iowa is an on-going process that was started in October 1975. It required and will continue to require the assistance and hard work of numerous groups and organizations in the public and private sectors at the local, state, and federal levels. Neither time nor space allows a detailed discussion of the many nuances and activities required to carry out the processes of politics and training. It is easy to assume that the

process was without difficulty when the end results are observed; however, it was not and is not without obstacles.

Some of the obstacles encountered along with way include the following:

1. Apprehension at the local level about working within broad state-issued parameters (many local agencies want IDOT to be extremely specific rather than set out broad guidelines),
2. Resistance to change,
3. Inexperienced management in making business decisions and understanding finances and budgets (the previous work of most of the managers had been in the field of social service activities),
4. Local views of regional transit as a state program rather than as a local program (because the idea had originated at the state level),
5. Difficulties in understanding the concept of consolidation (there continues to be a philosophy of diffusing decisions and responsibility into a committee framework and a reluctance to eliminate present agencies and programs),
6. Difficulties at the local level in viewing private enterprises as being on an equal footing with public agencies in supplying resources,
7. Turf fighting, and
8. Skepticism about the benefits to be achieved—each area thinks of itself as unique.

Every day brings new obstacles. However, success appears to rest with the ability to be flexible and adaptable but committed to a defined objective and published strategy.

FUTURE DIRECTIONS

The future direction of IDOT will be one of providing greatly increased on-site consulting. In 1978-1979, IDOT shifted from being a developing organization to being one of implementation and management. Each regional property will have a specific consultant assigned from the public transit division to assist in all facets of property management. This assistance will include everything from planning through implementation, evaluation, and adjustment and will cover financing, hiring, training, and day-to-day management problems. Each member of the staff of the public transit division will be functioning in a manner similar to a group vice-president in private industry who is responsible for the productivity and bottom-line results of a number of operating divisions.

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Abridgment

Overview of the Social-Service Insurance Dilemma

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Please help me. I am a prisoner. My surroundings are clean and neat and orderly, for I am a prisoner of my own home.

My children are grown and live far from this small town where they were raised. The grocery store is only three blocks away, but I am 77 years old and my legs won't carry me there and back again. Each day I see people pass by and sometimes they wave. Other times they seem too busy.

I know there is work to be done and I could help. There are small hands that would fit in mine—babies that need holding and faces I could touch with my eyes.

Instead, I sit on my porch and watch the darkness come and the lights go on in your world. I'm not in a hurry because when I get up, I will only go back inside.

This letter, originally written to the Governor of Tennessee and read in July 1977 at hearings on social-service insurance issues held by the U.S. Senate Special Committee on Aging, indicates the needs to which social-service agencies respond. They hear the cry of the elderly, the poor, the handicapped, the disabled, the very

young, the Indian on the reservation, and many others who suffer the pain, anguish, and alienation of not being able to be a part of a society that is so dependent on the automobile for personal mobility.

To respond to these needs, government at all levels has funded many programs that transport either the service to the client or the client to the service. These programs range from Head Start to Meals on Wheels to transportation services on Indian reservations. The U.S. General Accounting Office (GAO) indicates that there are now 112 federal programs that provide these services. The U.S. Department of Health, Education, and Welfare estimates that, after the states match their funds, \$1.8 billion/year is spent on social-service transportation. This does not include programs of the U.S. Department of Labor, the Appalachian Regional Commission, the Urban Mass Transportation Administration, the U.S. Department of Agriculture, or the Federal Highway Administration. It also does not include programs under