occurred in Houston as aggressively as we might have.

CONCLUSIONS

The result of this effort over a two-year period has been the development of a large number (90 percent of the vans) of employer vanpools. Employers have come to realize that they have a stake in how their employees get to work. Although this is expressed differently by various employers, the principal concerns are expansion and protection of the labor market, reduction of parking costs, and public relations. The employer's enlightened self-interest, which is evidenced by those concerns, is the key to the success of vanpooling in Texas. This is the main reason the period of rapid growth occurred during the past two years.

If the employer is appealed to on the basis of this self-interest and reasonable tax shelters are provided for the purchase of vans, employers will put the vans on the road. The point to remember is that people will not put vans on the road merely to capture the tax break (or to reduce pollution or to save energy); they must have a stronger reason, such as saving money. The tax breaks only make the program more attractive by reducing the fares to the riders to a reasonable $30-45/month for an average 50-mile daily trip.

Our experience in Texas makes clear that a tsar of vanpooling is not a requirement for a successful statewide program. The key is to build a vanpool (or ridesharing) community and guide its development. Otherwise, there is a real danger that the tzar will market his or her own brand of vanpooling to the exclusion of others and, by doing so, will miss major targets of opportunity.

When the vanpool community in Texas consisted of 15-30 employers, four regional coordinators, Houston NAVPO, and TENRAC, coordination was easy. Now, however, TENRAC must coordinate 105 employers as well as newly interested state agencies. The danger is that too much time will be required in the coordination effort, and too little time left for contacting employers and assisting with technical problems.

Finally, the job of putting vanpools on the road is a selling job that requires an adequate budget (say, 20 percent of the total cost) for travel, conference expenses, and materials. The vanpool promoter must know the territory, know how to interest prospects in the product, and be available to answer questions and give assistance after the sale.

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Multiemployer Ridesharing Brokerage: Findings from Minneapolis Commuter Services Demonstration

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This paper presents findings from the evaluation of the Minneapolis ridesharing commuter services demonstration, a prototype transportation brokerage program designed to arrange alternatives to driving alone for commuters. The program promoted and coordinated services for carpooling, vanpooling, and bus commuting at selected employment sites in the Minneapolis-St. Paul area. A unique aspect of this demonstration was its focus on multiemployer work sites in nondowntown locations. The demonstration showed that these sites represent a potentially important market for ridesharing; however, program success can be dependent on a variety of critical site characteristics. A number of new program features were also tested, including a variety of marketing strategies, a telephone brokerage technique to assist carpool applicants, and the use of a private, third-party contractor for vanpool services. Findings from this demonstration can serve as a reference for other interested agencies to aid in indicating the type and range of issues they may confront in establishing a ridesharing program.

The Minneapolis ridesharing commuter services demonstration, popularly known as the Share-A-Ride program, was a prototype transportation brokerage program designed to arrange alternatives to driving alone for commuters. It coordinated services for carpooling, vanpooling, and bus commuting to workers at selected employment sites in the Minneapolis-St. Paul area. Initiated by the Metropolitan Transit Commission (MTC) in 1977, the project was part of the Urban Mass Transportation Administration's (UMTA) Service and Methods Demonstration (SMD) program. The Share-A-Ride program has been designed to be a permanent, ongoing program, characterized by

1. Intensive marketing efforts aimed at employers and employees at selected sites;
2. Matching services for carpool, vanpool, and bus information applicants;
3. Follow-up assistance with carpool and vanpool formation; and
4. Administration of a fleet of leased vans.

The primary purpose of the program was to increase work-trip vehicle occupancy.

Key elements of this demonstration that differentiate it from previous ridesharing promotion efforts are the following:

1. Simultaneous promotion of a wide range of ridesharing services, including carpools, vanpools, and buses;
2. Focus on multiemployer, nondowntown sites as the market for the program;
3. Reliance on intensive, small group employee presentation meetings for program marketing;
4. Use of telephone brokerage as a personal follow-up for all matched carpool applicants;
5. Sponsorship by a regional transit agency that also serves as the program coordinator and broker of carpools;
6. Use of a private, nonprofit organization for program design, implementation, and marketing activities; and
7. Use of a private, third-party vanpool provider to operate the multiemployer vanpool program.

The demonstration, which ended in 1979, involved 11 multiemployer sites outside the central business districts of Minneapolis and St. Paul, each with from 3700 to 14 000 employees (see Table 1). The Share-A-Ride program has since expanded to downtown St. Paul and additional sites throughout the metropolitan area.

The SMD evaluation report on the Minneapolis Share-A-Ride program discusses a wide variety of topics, including travel behavior characteristics, perceptions of ridesharing, program costs, and organizational issues (1). This paper focuses on three issues related to aspects of program operations and delivery of services that differentiate the Minneapolis program from that of other ridesharing programs: (a) the feasibility of marketing ridesharing to multiemployer, nondowntown sites; (b) the design of a telephone brokerage technique to assist with carpool formation; and (c) the delivery of vanpool services by a third-party provider.

OVERVIEW OF KEY PROGRAM FEATURES

A unique aspect of this demonstration has been its focus on multiemployer work sites in nondowntown locations. This is in contrast to previous public ridesharing programs that have concentrated on large employers and central city areas. The multiemployer orientation of the program is important in overcoming the problem that only a limited number of large firms have sufficient scale for effective rideshare matching. The extent to which employees of small- and medium-sized firms can be successfully incorporated into a ridesharing program is a major issue addressed in the demonstration. Although the focus on multiemployer sites has the advantage of increasing the size of the potential poolable population, it also raises the problems of conflicting shifts, varying overtime requirements, and intrasite pickup and dropoff distances. Marketing the ridesharing service is operationally much more difficult in a highly fragmented multiemployer context.

The focus on nondowntown locations is important because nondowntown work sites are generally less conducive to ridesharing than downtown work sites, yet they account for a large (and growing) proportion of employment in many metropolitan areas. The Twin Cities area is typical of many urban areas in the United States in which the majority of the employment is widely dispersed throughout the metropolitan area outside of downtown. Only 17 percent of the 800 000 jobs in the Twin Cities are in the downtowns of Minneapolis and St. Paul; 50 percent are in the suburbs and the remainder are located in the central cities outside the downtowns. This dispersed employment pattern cannot be cost effectively or easily served by the traditional set of transit routes that radiate from employment centers. With few (if any) centers comparable in size to the downtowns, many routes cannot be operated with full buses to serve the wide array of working hours. Thus, nondowntown work locations frequently have a low level of transit service. In addition, suburban work sites are typically characterized by a variety of conditions favorable to solo driving: plentiful free parking, proximity to major freeways, and little traffic congestion.

The site-based marketing strategy was characterized by an intensive effort that initially involved attempts to contact all employers personally and arrange small group presentations for all employees. The presentations were 30-40 min meetings held during work hours and involved a speaker, a slide-and-tape show, and a question-and-answer period. The typical audience was 30-50 persons, although audiences occasionally were as small as 2 or as large as 500. Most of the participating firms had multiple presentation meetings; one firm had 46 meetings. Other marketing approaches, used when employee presentations were not possible, included employee surveys with attached applications and a variety of passive marketing strategies, including information booths, posters, newsletters, and brochures.

Telephone brokerage was designed to encourage and assist matched carpool applicants to make contact with other persons on their match list. This was the first program to use this technique as a response to the problem (faced by other ridesharing programs as well) that relatively few persons ever follow through to form carpools after they receive a match list of potential carpoolers. Initially, lunch-time carpool formation meetings were employed as the principal technique for organizing carpools among matched individuals. These meetings were characterized by high staff costs and low turnouts

Table 1. Summary of site characteristics.

Site	Total Employment	Number of Firms by Employment Size			Type of Activity
		>1000	100-1000	<100	
Pentagon Park	7 572	1	10	291	Manufacturing, office park
South Central Minneapolis	8 677	3	7	6	Hospital, sales, office
Central Bloomington	4 463	0	12	138	Manufacturing, warehouse
East Bloomington	5 869	1	6	14[a]	Sales, office
Arden Hills	4 900	2	2	1	Manufacturing
Northeast Minneapolis	14 027	3	20	45	Manufacturing, warehouse
Golden Valley	5 816	2	5	5	Manufacturing offices
Eagan	4 858	2	3	6	Office
Plymouth	5 685	1	11	58	Warehouse, office park
St. Louis Park	3 729	1	2	60	Manufacturing, office park
Fort Snelling	4 289	1	4	14	Government offices
Total	69 885	17	82	638	

[a]In addition, approximately 200 small firms in the adjacent Metro Office Park were invited to participate.

Table 2. Applications, carpoolers placed, and current vanpools by site.

Site	Total Applications		Verified New Carpoolers	Total Vanpoolers
	No.	As Percentage of Total Employment		
Pentagon Park	2 497	33	287	26
South Central Minneapolis	1 717	20	175	63
Central Bloomington	434	10	64	0
East Bloomington	1 477	26	196	44
Arden Hills	911	19	70	22
Northeast Minneapolis	1 780	13	137	102
Golden Valley	1 083	19	69	47
Eagan	1 473	30	-[a]	46
Plymouth	1 389	24	129	42
St. Louis Park	1 521	41	70	0
Fort Snelling	1 134	26	37	0
Off site	-[a]	NA	NA	281
Total	16 530	24	1234	673

[a]Not available.

Table 3. Employee restrictions by mode.

Employee Restrictions	Pentagon Park (%)			Northeast Mineapolis (%)			Vanpoolers (%)
	Drive Alone	Carpool	Bus	Drive Alone	Carpool	Bus	
Overtime							
Less than 1 day/week	41.5	58.8	70.0	52.2	76.8	63.3	85.9
1-2 days/week	28.5	21.6	20.0	22.9	9.1	30.6	11.6
3 or more days/week	30.0	19.6	10.0	24.9	15.2	6.1	2.5
Need for a car							
Less than 1 day/week	59.0	80.4	88.0	71.1	75.8	91.8	85.5
1-2 days/week	15.5	10.8	6.0	13.9	15.2	8.2	13.7
3 or more days/week	25.5	8.8	6.0	14.9	9.1	0.0	0.8
Rotating shift							
Yes	8.5	4.5	0.0	11.9	2.0	4.1	0.8
No	91.5	95.1	100.0	88.1	98.0	95.9	99.2
Overtime or need car							
Less than 1 day/week	30.5	49.0	66.0	39.8	62.6	61.2	76.3
1-2 days/week	24.0	24.5	22.0	23.9	18.2	32.7	20.3
3 or more days/week	45.5	26.5	12.0	36.3	19.2	6.1	3.3

and were replaced by the telephone brokerage technique early in the program. In addition to its function as a marketing tool that encourages and assists carpool formation among matched applicants, telephone brokerage also served as a data collection technique for measuring carpool formation and updating application information.

When initiated in 1977, the organizational and operational structure of the Share-A-Ride vanpool program differed from that of most other vanpool programs in operation across the country because it was managed by a private third-party provider rather than by an employer or a public agency. Also, the vans were neither leased nor sold to the vanpool drivers nor were they purchased by the vanpool agency. Rather, the vehicles were leased by the vanpool provider and supplied directly to vanpool groups in exchange for passenger fares.

This paper describes program results for the first two years of program operation, ending in October 1979. During that period, 16 530 applications that expressed carpool, vanpool, or bus interest had been received from an employment base of 70 000 at 11 sites. A total of 1234 former drive-alone applicants became verified carpoolers as a result of the Share-A-Ride program. There were 62 Share-A-Ride vanpools in operation, including 26 based outside of the multiemployer demonstration sites (see Table 2). A total of 903 persons participated in vanpools, including 344 from off-site vanpools. (As of April 30, 1980, the program continued to process applications from the 11 sites and added downtown St. Paul as a 12th site. The number of drive-alone applicants that became verified carpoolers increased to 2269, and 104 vanpools were operating.)

MARKET FOR MULTIEMPLOYER RIDESHARING

The Share-A-Ride experience has demonstrated that multiemployer sites do represent a significant market for ridesharing, but a difficult and expensive one to organize. The limited communication between smaller firms poses a major challenge to the effective penetration of this market, and efforts to obtain permission from each individual employer to solicit applications from their employees are costly. Varying work hours and other work-related constraints are additional barriers to multiemployer ridesharing. Work-related constraints consistently emerge as important factors in limiting the extent of multiemployer pooling (and pooling within some large single firms) at all 11 employment sites. A multiplicity of different working times, overtime, part-time employment, and employees who need their cars during work hours often reduces the potential for carpooling and vanpooling more than initially anticipated. These work-related conditions are typical of many multiemployer sites and were found to occur more frequently at retail stores, hospitals, warehouses, and sales and service firms than at manufacturing facilities and offices. Surveys conducted at three of the sites indicated that more than half of the employees either worked overtime or required the use of a car for work at least once a week. Although these conditions did not preclude ridesharing, they did consistently reduce the likelihood of ridesharing (see Table 3). The extent of dispersed working hours is illustrated by the fact that the largest work shift at any of the surveyed sites (with 30-min intervals each for start and end times) accounted for just 31 percent of the employment at that site. Restrictive work conditions,

Table 4. Role of largest employers at each site.

Site	Large Employer	No. of Employees at Large Employer	Total Site Employment at Large Employer (%)	Total Site Applications from Large Employer (%)
Pentagon Park	Magnetic Peripherals branch of Control Data Corporation	2500	33	79[a]
South Central Minneapolis	Honeywell	2000	23	80[a]
Central Bloomington	Donaldson Warehouse	600	13	39
East Bloomington	Control Data Corporation	3467	59	71
Arden Hills	Control Data Corporation	2200	45	55
	Honeywell	1600	33	33
Northeast Minneapolis	Honeywell	2500	18	24
	Univac	4200	30	45
Golden Valley	Honeywell	3100	53	64
Eagan	Univac	3000	62	81
	Blue Cross-Blue Shield	1150	23	28
Plymouth	Litton	1200	21	18
	Control Data Corporation	820	14	25
St. Louis Park	Honeywell	2000	54	68
Fort Snelling	Veterans Administration Center	1236	28	NA

[a]Increased by new-hire marketing at Magnetic Peripherals in Pentagon Park and resurvey at Honeywell in South Central Minneapolis.

widely varying working hours, and the geographic dispersion of residences are major reasons why no subscription bus groups were formed and only a small number of vanpool groups were formed at any given site.

In an assessment of the importance of work-related constraints to ridesharing, the characteristics of existing commuting conditions and the perceived need for ridesharing services must be taken into account. The Share-A-Ride staff conducted discussions with employers about changes in employee schedules to facilitate or encourage ridesharing. Many employers were not receptive to the idea, but we thought that they would have been more willing to consider changes in work shifts if commuting conditions had been less favorable for driving alone. In addition, employee surveys indicated that some persons who had rotating shifts, occasional overtime, or the need for a car at work did nevertheless commute by carpool or bus, but most commuters preferred the convenience and flexibility of driving alone over the cost savings they recognized from ridesharing. Future changes in fuel prices and availability could shift these values and encourage more commuters to work out ridesharing arrangements that overcome the current work-related constraints. A variety of backup services such as taxi vouchers or employer-provided loaner cars might also help overcome some of these work-related barriers to ridesharing, although this concept was not tested in the Minneapolis program.

Short commute distances were another factor that particularly limited the potential for vanpooling. Although the median home-to-work distance for vanpoolers was 23 miles, less than 12 percent of the employers at the survey sites had commute distances in excess of 20 miles.

From the marketing experience at the initial two sites, it became clear that small firms (i.e., under 100 employees) seldom cooperated with the ridesharing promotion and were the source of very few applications. Managers of small firms (particularly those that had less than 25 employees) were often not office-bound and were difficult to reach, and they were usually reluctant to allow company time (or resources) for presentations or literature distribution. To some extent, this occurred because small firms were typically sales or service businesses, and many of their employees were office-bound or did not work regular shifts.

On a more fundamental basis, many of the program's selling points to employers (e.g., reduction in parking congestion, improved labor force access, employee relations and productivity, and community image) are not relevant for small firms. For almost all of these small firms, employee commuting was not considered an urgent concern, and there was no perceived need to reduce employee parking requirements. Program participation would have little impact on employee relations (since they know all of their employees on a first-name basis), and small firms are seldom concerned with enhancing their community image.

In response to the difficulties of effectively reaching employees of small firms, marketing efforts in the second year were redirected to concentrate employee presentations and surveys on firms that have 100 or more employees; only passive marketing (brochure distribution) was used for the smaller firms. This streamlining of the marketing effort substantially shortened the time (and cost) required for marketing to each new site. As a result, the Share-A-Ride program was able to expand from 3 to 11 sites in the second year, generate more than twice as many applications, and place twice as many persons into carpools and vanpools as in the first 12 months. This accelerated program expansion was achieved with no budget increase over the program's first year's budget. It was only made possible by limiting the effort to reach smaller firms.

Very large firms (i.e., those that have more than 1000 employees) played a crucial role in the success of the ridesharing program. One or two major employers accounted for the majority of the ridesharing applications at most of the sites, regardless of the level of marketing effort aimed at smaller firms (see Table 4). A large proportion of the carpools had all members working at a single firm, despite the multiemployer nature of the matching service (see table below). Similarly, nearly half of the vanpools at the multiemployer demonstration sites were single-employer pools.

	Carpoolers in Employee Follow-Up Survey (%)	
Carpool Composition	Pentagon Park	Northeast Minneapolis
Family members only	36.0	32.4
Includes nonfamily members, but all from same employer	48.3	62.6
Includes nonfamily members who work at a different employer, but all at the same work site	10.8	5.0
Includes nonfamily members who work at a different work site	4.9	0.0

These findings do not undermine the value of multiemployer matching, but rather, they indicate the importance of large anchor firms at the employment sites and the challenge for marketing to smaller firms.

Another finding from the experience at 11 sites is that the size and geographic definition of site boundaries can also affect the extent of multiemployer pooling. Inaccessibility among firms within a site emerged as a major factor to discourage the formation or continuation of multiemployer carpools and vanpools at some of the sites. Distances of more than one mile between firms or the existence of railroad tracks, expressways, other physical barriers, or a nondirect road network all may isolate some firms from others and make circuity for dropping off and picking up riders an additional problem for multiemployer pools. Thus, a successful multiemployer site must encompass a well-defined and reasonably compact area while still including a sufficient number of employees who are potentially eligible for rideshare matching. The minimum employment base for a successful site appeared to be around 4000 persons.

The variation in program success among various sites indicates several lessons for identifying the most-appropriate multiemployer sites for a ridesharing program:

1. The successful multiemployer site had more than 4000 total employees among firms with 100 or more employees each and had at least one anchor firm that employs more than 1000 employees.
2. Work conditions at manufacturing facilities and office building complexes generally made them more suitable for rideshare marketing than retail stores, sales companies, or warehouse districts.
3. Multiemployer work sites must have carefully defined boundaries within which there is an easily identifiable and reasonably compact cluster of firms. This requires that intrasite travel distances and the existence of barriers to intrasite access be taken into account.
4. Current travel conditions, including commuting distances, the extent of current ridesharing and bus use, and the existence of road congestion, parking scarcity, and parking fees all should be considered in order to evaluate the market potential for additional ridesharing.

TELEPHONE BROKERAGE

Telephone brokerage was one of the more unique aspects of this ridesharing demonstration. Under this system, the Share-A-Ride carpool coordinator made a follow-up telephone call to each matched carpool applicant. These telephone calls, made from two to eight weeks after the mailing of match lists, revealed that fewer than 15 percent of the people had contacted others on their match lists. Reasons for the failure of most matched applicants to make carpool arrangements were as follows:

1. Loss of interest in forming a carpool,
2. Reluctance to contact strangers,
3. Change in address or work hours from that given on the application, or
4. Matches considered unacceptable by the applicant.

For those who had lost interest or were reluctant to contact strangers, the telephone call served to remarket the program and encourage subsequent contact with others on their match lists. Three-way conference calls between the carpool coordinator and potential carpoolers were sometimes made to assist with the arrangement of carpools at the first few sites. (Lack of sufficient staff time prevented the continuation of conference calls as well as second and third follow-up calls at the later sites.)

In addition to its function as a marketing tool, telephone brokerage functioned as an application-updating and data-collection tool. For those who had changes in work schedule, workplace location, or residence location, telephone brokerage calls updated their applications so they could be rematched. Applicant claims that none of their matches were appropriate could be due to differences in schedule times, work locations, or residence locations that were beyond the applicant's tolerance, or they could be due to the existence of carpool preferences that were not asked on the application. The latter problem could sometimes be resolved by noting additional preference information on the application and returning it to the file to be rematched. The telephone brokerage calls made it possible to verify the number of applicants placed into carpools as a result of Share-A-Ride matching. They also served an important function of feedback on problems at some of the sites. These problems ranged from complaints of unacceptably long travel distances between firms to restrictions for some employees on receiving telephone calls at work (particularly brokerage calls and calls between matched applicants to arrange carpools).

The telephone brokerage technique helped the carpool program achieve a level of placement in which 20 percent of the matched drive-alone applicants (14 percent of all drive-alone applicants) became verified carpoolers. This is higher than the 2-10 percent placement rate typically achieved by carpool matching programs (2,3). Further analysis is still necessary to measure the unit costs of telephone brokerage and the marginal increase in carpool placement that is directly attributable to the technique. In addition, several issues remain concerning the design and implementation of a telephone brokerage effort. These are as follows:

1. The optimal number of follow-up telephone calls to be made to each applicant,
2. Selectivity criteria for concentrating the telephone calls on those market segments most likely to form carpools,
3. The extent of use of conference calls, and
4. The time delay between mailing match lists and conducting telephone brokerage.

STRUCTURE OF VANPOOL SERVICE DELIVERY

The Share-A-Ride demonstration program had a decentralized organization, with the MTC as the grant recipient and program coordinator and several private firms contracted to perform specific project tasks. Since the end of the demonstration period, MTC has centralized all but one program function within its own organization. Van Pool Services, Inc., has been retained to coordinate vanpool matching and brokerage and to administer the fleet of leased vans.

The issue of contracting for services versus providing them in-house arises repeatedly for public agencies such as MTC. The Norfolk, Virginia, the Golden Gate (San Francisco), and the Minneapolis vanpool demonstration programs were all funded directly to a local transit agency; however, only in Minneapolis did the transit agency choose not to operate the vanpool program directly (4). Direct operation of the vanpool program by the MTC was never seriously considered for two key reasons. First, direct operation by the transit agency would require an additional investment in staff and of-

fices plus significant administrative effort involved in acquiring and maintaining a van fleet. An equally important concern was that the ownership or leasing of vans by MTC for use by volunteer drivers would represent a visible competition to the services performed by union-driven buses. As such, it would be likely to encounter greater objections from the transit union and could make the vans more directly liable to negotiations with the union relative to their maintenance, driver arrangements, and areas served.

Instead of contracting to a third-party provider to administer vanpool operations, some programs have avoided the administrative work of maintaining a growing van fleet by either encouraging the transition of drivers to become independent owner-operators (e.g., Knoxville Commuter Pool) or by shifting drivers to lease the vans from another organization (e.g., Golden Gate Vanpool). Still other vanpool programs (e.g., Baltimore's VANGO) lease the vans to the drivers from the outset. These approaches have a variety of potential disadvantages, however. They require a sufficient number of persons who are willing to lease or buy the vans and assume the financial responsibility of obtaining insurance and operating the pools. As the drivers become independent contractors, the vanpool program office is limited in its control over the quality of service provided. There is also a tax advantage for a corporation rather than individuals or a public agency to purchase or lease the vans. In particular, a corporation can amortize a purchased or leased van just as it would any item of plant or equipment and can also claim an investment tax credit (5,6). (With the 1981 tax laws, public agencies may also be able to take advantage of depreciation through sale leaseback arrangements. The interpretation of the law, however, is still being debated.)

The third-party-provider model used in Minneapolis was considered to have several implementation and operational advantages over other options for program management. Since it operates independently of employers, it presents no additional liabilities or costs to employers nor does it necessarily even require cooperation of all employers in order to establish multiemployer vanpools. As the program grows, one vanpool provider can maintain control over vanpool pricing and service quality that is consistent among employment sites and can realize the potential savings in administrative and insurance cost from a large-scale operation.

As a private organization, the third-party provider can have the flexibility to make independent decisions regarding staffing, office operations, vehicle acquisition, and maintenance agreements. It is not clear whether a private third-party provider offers staffing allocation or administrative cost advantages over a direct transit agency operation, but it clearly gives the vanpool program some element of independence from political and bureaucratic decision making concerning vehicle fleet acquisition and operations. The concept of a multiemployer vanpool program operated by a third party organization is now becoming increasingly popular, and third-party vanpool programs now operate in several states.

CONCLUSION

As vanpool and ridesharing brokerage programs are becoming more common, the critical issues that confront many local programs are shifting from the area of legal and regulatory barriers to the area of program design and operation. For example, the legal environment for initiation of the Share-A-Ride program in 1977 was already conducive to vanpooling, due in part to the prior existence of the pioneering vanpool program at the 3M Company of St. Paul and the existence of 10 other employer-based vanpool programs in the area. Commuter van legislation passed by the Minnesota legislature in 1976 had exempted commuter vanpools from Public Service Commission regulations and modified the regulatory, insurance, liability, and tax structures to facilitate van operation.

Multiemployer, site-oriented carpool, and vanpool marketing programs are now arising as alternatives to reliance on single-employer initiatives and regionwide promotions. The concept of telephone follow-up is gaining recognition as a means of assisting carpool formation among applicants and as a tool for record updating. Organizational alternatives, including third-party providers and contracts to private agencies for other marketing services, are also worthy of further attention.

Note that the setting for the Minneapolis ridesharing demonstration was unique in several ways. The employment base in the Twin Cities area is dominated by the offices and manufacturing facilities of several high-technology, computer-oriented firms. The attitudes and cooperation of these major employers were systematically more conducive to ridesharing than those exhibited by some other types of employers, such as retail and warehousing firms. Thus, the mix of firms and employmemt types in a metropolitan area may affect employer attitudes toward ridesharing as well as the poolability of the employment base.

The extent of employer cooperation and assistance with the promotion of ridesharing can also be sensitive to the level of concern about gasoline supplies and the perceived need for ridesharing services. There were measurable increases in both the proportion of firms that allow employee presentation meetings and the number of requests for vanpool services from off-site firms, starting in the spring and summer of 1979, when dramatic gasoline price increases and supply shortages occurred.

Despite a few caveats to transferability of results, the Minneapolis ridesharing demonstration has yielded a number of major findings that should be applicable elsewhere. In particular, the demonstration program showed that a comprehensive package of ridesharing services aimed at multiemployer, nondowntown sites can be feasible and can tap an important market for ridesharing. At the same time, the demonstration has helped to identify the existence of difficulties in engaging participation from small firms and the existence of various site characteristics critical to program success. Lessons learned from experimentation with several different marketing strategies, the development of the telephone brokerage approach, and the use of contractors to perform certain ridesharing services are all applicable for the design and implementation of ridesharing programs elsewhere.

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Abridgment

Personalized Approach for Ridesharing Projects: Experience of Share-A-Ride in Silver Spring, Maryland

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Recent research suggests that ridesharing programs could increase their effectiveness if the assistance process were humanized and the behavioral factors that influence ridesharing were taken into account. To test this premise, the Maryland-National Capital Park and Planning Commission has developed a project called Share-A-Ride that uses a personalized approach to overcome the traditional barriers to ridesharing. Initiated in September 1979, this project has experimented with personalized marketing, matching, and follow-ups in the central business district of Silver Spring, Maryland. Early results indicate that Share-A-Ride has (a) provided 93 percent of the applicants with the ridesharing information they seek, (b) influenced 72 percent of matched applicants to telephone other prospective poolers, and (c) helped 43 percent of all applicants to enter new ridesharing arrangements. Share-A-Ride is currently implementing the personalized approach at a cost of about $130/person who enters a new ridesharing arrangement. Planned personnel adjustments and increases in pool-formation rates could drop this cost below $100/person in upcoming years. Important considerations for applying the personalized approach in other locations include the following: (a) personalized programs should be implemented in moderate-size employment centers and also in special segments of large metropolitan areas; (b) employers and employees should be encouraged to participate actively in planning and operating the project; (c) the computer should be used to perform routine chores so staff will be free to concentrate on personalized marketing, matching, and follow-ups; and (d) staff should be highly qualified and able to assume a wide range of responsibilities.

Many metropolitan areas in the United States currently have computerized carpool matching systems. Although these systems were established to create new pooling arrangements, they have typically helped only small percentages of the commuting population.

In recent years, researchers such as Margolin and Misch (1), Levin and Gray (2), Hartgen (3), Horowitz and Sheth (4), Kurth and Hood (5), Brunso, Kocis, and Ugolik (6), Shea and Tischer (7), and Wagner (8) have investigated the performance of these systems in order to understand the factors that may hinder their effectiveness and to point to new directions for rideshare-assistance programs. This research suggests that the key to increased effectiveness lies in humanizing the rideshare-assistance process and in taking into account the behavioral factors that help or impede ridesharing.

In response to this research, the Montgomery County Planning Department of the Maryland-National Capital Park and Planning Commission (M-NCPPC) has initiated a project called Share-A-Ride in the central business district (CBD) of Silver Spring, Maryland. This project, which began operations on September 10, 1979, is testing the ability of the personalized approach to blend behavioral considerations into the rideshare-assistance process. At the same time, it is demonstrating how rideshare assistance can be made more effective, particularly in moderate-size employment centers, such as downtown areas of small-medium size cities, suburban CBDs, and other clusters of commercial development. Share-A-Ride has been developed with primary technical assistance from the project consultant, Sverdrup and Parcel and Associates, Inc.

PERSONALIZED APPROACH

The guiding principle behind the Share-A-Ride project has been the personalized approach. This approach recognizes that sharing a ride involves a personal, social, and business relation that many people find difficult to enter and maintain. The premise of the approach is that personalized assistance can help people overcome certain behavioral barriers, such as reluctance to ride with strangers, perceived loss of independence, or resistance to rigid and confining commuting arrangements.

Project Location and Staff

The Silver Spring CBD was selected for Share-A-Ride because the market is identifiable, manageable, and comprised of commuters from a wide area. Silver Spring is an unincorporated suburb of Washington, D.C., that has a compact CBD where approximately 1150 employers and 17 750 employees work (9). The CBD has a broad mix of employer types; the three largest categories are professional and technical services, government, and wholesale and retail (10). Many of these are small businesses; employers who have fewer than 100 employees account for approximately 58 percent of all employees in Silver Spring.