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Reverse Commute Transportation:
Emerging Provider Roles

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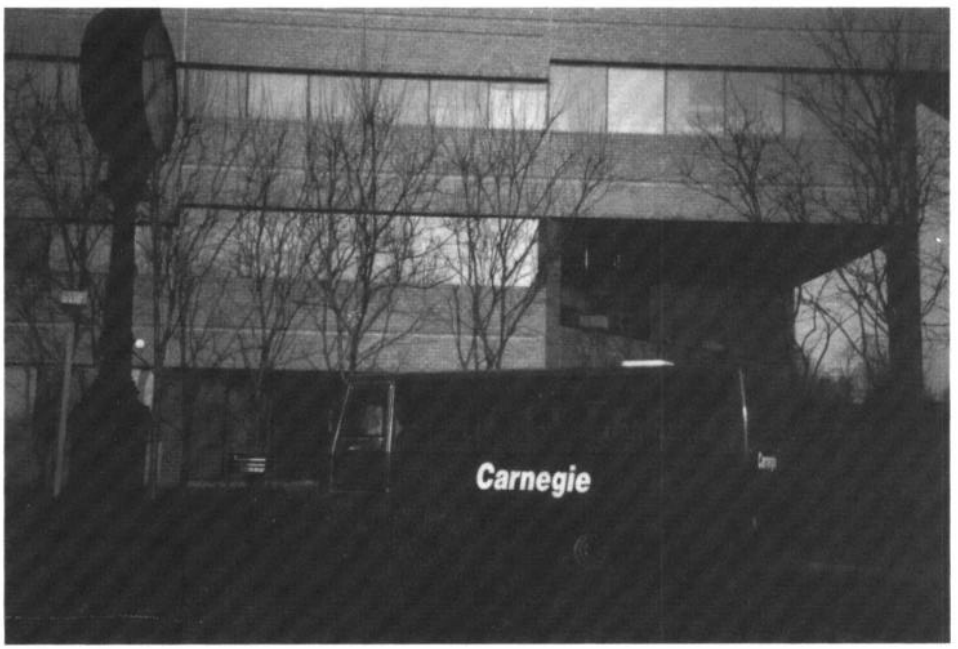

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Reverse Commute Transportation: Emerging Provider Roles

Final Report
March 1992

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EXECUTIVE SUMMARY

This study reports the findings of a small Federal Transit Administration funded study designed to identify and briefly evaluate both historical and modern reverse commute experiments and projects. In particular the Study was devised to meet three objectives:

1) to identify the socio-economic and geographic conditions which create markets for reverse commute services in local communities;

2) to describe and compare methods of providing home-to-work services for inner city residents employed, or seeking employment, in suburban areas, with special emphasis on new roles for private operators, and,

3) to evaluate the conditions under which various models of reverse commute services, and alternative providers, do or could have long term viability or develop into part of comprehensive transportation systems.

Historically, the first real policy concern with reverse commuters came with the ghetto riots of the late 1960's. In response, a series of Federal and State programs funded reverse commute experiments from 1966-1971 designed to get people from the ghettos of our major cities to the vast sea of suitable unfilled suburban jobs. The 60's projects were largely failures in both getting jobs for unemployed people and in establishing permanent transportation services.

In the late 1980's the Federal government, as well as some state and local governments, began once again initiating and funding more reverse commute experiments. These newer projects can be partially differentiated from earlier experiments in that they aimed at increasing the involvement of private entrepreneurs (whether for- or not-for-profit), a focus conspicuously missing in the earlier experiments.

Unfortunately most of the most recent projects have met with the same fate as their predecessors of three decades past and it is important to understand the reasons why reverse commute experiments have either succeeded or failed. Overall the study found little evidence that providing transportation cures or even addresses the inner city unemployment problem. Most of the assumptions underlying this "solution" were simply untrue or far more complex than originally thought--there weren't many suburban vacancies matching inner city skill levels, there weren't many inner city residents who wanted to travel long distances and give up social benefits for entry level jobs, and there was a great deal of prejudice and poor communication on the part of suburban employers.

The study also focused on different provider roles in reverse commute service provision and came to four major policy conclusions:

- non-transit agencies (public or private) appear to provide the most successful reverse commute transportation services for new job *seekers*, but only when the agencies provide a range of supportive services.

  ◇ These agencies do less well at providing daily repetitive commuter transportation for the people for whom they've gained jobs.

- transit operators can provide successful reverse commute services for those already employed in three ways: they can,

  ◇ rationalize and streamline existing bus services so that already employed workers don't face two and three transfers, commuting hours daily on trips that would take minutes by car,

  ◇ they can provide feeder bus services from regional rail or bus stations to major suburban employment complexes, synchronizing travel and work schedules, and,

  ◇ they can work with suburban employers or employment complexes to establish new bus services that provide fairly direct service from inner city neighborhoods.

- there is an important role for private entrepreneurs in reverse commuting, largely as contractors to public agencies and to transit operators, because most work services cannot be self-sufficient without subsidy; private operators, whether for-profit or not-for-profit can:

  ◇ contract with public agencies to provide inner-city-to-suburban bus/van services;

  ◇ contract with public agencies to run feeder services.

- opportunities for genuine free-market provision of profitable reverse commute services are very limited, given restrictive transit franchising, the low income of potential riders, and the high costs of service delivery, but they do exist; private operators can:

  ◇ profitably provide services as part of a family of transportation services to inner city neighborhoods, (spreading costs more evenly over the entire day), and,

  ◇ profitably provide services under contracts from private firms.

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INTRODUCTION

REVERSE COMMUTE AS A POLICY ISSUE

The transportation pattern called reverse commute has probably been with us since the development of the earliest suburbs. The term describes the work trip of a resident of the traditional core of the city who is forced to commute "outward" to a job, that is, away from the destination toward which most people are travelling, the downtown. Of course, for decades many local transit companies routinely ran bus routes to take domestics to jobs in homes in the suburbs (and some still do) but reverse commuting did not become a policy concern until it 1) was indicted as part of the ghetto unemployment problem, and 2) more recently, became such an important and growing part of urban traffic flows.

Historically, the first real policy concern with reverse commuters came with the ghetto riots of the late 1960's. In response, a series of Federal and State programs funded reverse commute experiments from 1966-1971 designed to get people from the ghettos of our major cities to the vast sea of suitable unfilled suburban jobs. The 60's projects were largely failures in both getting jobs for unemployed people and in establishing permanent transportation services.

The projects themselves, and their lessons, seem to have faded from our collective consciousness or have been summarily ignored; a 1989 NACO report dismissed these multi-million dollar ghetto transportation projects--and by implication their results--as mere "short-lived pilot...projects"--without analyzing the reasons for their short lives[1]. A 1989 report for the National League of Cities vaguely acknowledged these projects but asserted that conditions had changed markedly; the report concluded,

> Evidence...suggests that conditions will be far more amenable to transportation solutions in the 1990's than in the 1960's...the wholesale decentralization of regions has resulted in outer cities plagued by a growth-choking congestion and inner cities stricken with an isolated deprivation. This stress is most clearly seen in the regional labor markets of our larger metropolises; suburban employers unable to fill jobs and impacted ghetto residents unable to find them.

In the late 1980's the Federal government, as well as some state and local governments, began once again initiating and funding more reverse commute experiments. These newer projects can be partially differentiated from earlier experiments in that they aimed at increasing the involvement of private entrepreneurs (whether for- or not-for-profit), a focus conspicuously missing in the earlier experiments.

Unfortunately most of the most recent projects have met with the same fate as their predecessors of three decades past and it is important to understand the reasons why

reverse commute experiments have either succeeded or failed. It is also important to remember that both historical and current projects have set different goals for themselves and that project personnel have come to evaluate success in terms of their own particular goals.

Specifically, reverse commute can be an issue in four different, albeit somewhat related, policy arenas and thus have any one of four goals:

a) ghetto or underclass unemployment

- the belief that inexpensive transportation must be provided from the inner city to the suburbs to address growing and persistent unemployment among urban minorities, particularly those styled "the underclass."

b) suburban travel patterns and congestion

- the expressed need to provide viable transportation options for many different markets in the suburban areas where most of the new jobs have gone in the last thirty years.

c) expanding the number and role of transportation providers

- the belief that private for-profit entrepreneurs should be encouraged to find new and different "market niches" for commuter services, some of which would be inner city residents working (or seeking work) in the suburbs because entrepreneurs will either be cheaper or more efficient or more responsive to the local community; and,

d) empowering minority communities to address their own transportation needs

- the belief that encouraging private, generally not-for-profit neighborhood based organizations to provide needed transportation services to their people or clients will help empower the community.

We must recognize that it is difficult to generalize about the success or failure of any reverse commute project because that outcome is based in large part on how well any agency did at meeting its own specific goal or goals from among these four.

The transferability of the results of any given reverse commute project is always open to debate because the objectives of individual projects can be so different, ranging from

getting unemployed people jobs to gaining long-term transit riders to creating self-sufficient community transportation providers. Clearly transit agencies would only be interested in implementing programs which created long term transit riders, social agencies in programs which empowered the community, employment projects in programs which created long term job gains.

However, even with that disclaimer, it is clear that most of the historic and current reverse commute projects were not very successful at meeting any of these four goals and this report attempts to describe the underlying myths and assumptions--some quoted above--that helped create their problems.

STUDY BACKGROUND AND FINDINGS

This reports presents the findings of a small Federal Transit Administration funded study designed to identify and briefly evaluate both historical and modern reverse commute experiments and projects designed to address any or all of the four goals raised above. In particular the Study was designed to meet three objectives:

1) to identify the socio-economic and geographic conditions which create markets for reverse commute services in local communities;

2) to describe and compare methods of providing home-to-work services for inner city residents employed, or seeking employment, in suburban areas, with special emphasis on new roles for private operators, and,

3) to evaluate the conditions under which various models of reverse commute services, and alternative providers, do or could have long term viability or develop into part of comprehensive transportation systems.

Because resources were very limited, the study simply identified and described on-going or recently completed reverse commute operations--generally based on system-reported data and open-ended telephone interviews with project staff.

Overall the study found little evidence that providing transportation cures or even addresses the inner city unemployment problem. Most of the assumptions underlying this "solution" were simply untrue or far more complex than originally thought--there weren't many suburban vacancies matching inner city skill levels, there weren't many inner city residents who wanted to travel long distances and give up social benefits for entry level jobs, and there was a great deal of prejudice and poor communication on the part of suburban employers.

In addition, the study found that many community based transportation systems were initiated with misguided assumptions about the resources needed to develop and implement transportation services that could be viable and competitive over the long run.

Many of the projects were so heavily subsidized that they can hardly be used to test the potential role of the private entrepreneur.

The study also found that transit operators weren't any more willing to become active reverse commute providers than they were 25 years ago when the first Federal programs addressed this problem. Moreover, when they were willing to provide new or requested services, they 1) did so in ways that met their rather than the riders' needs and 2) they expected almost all their costs to be paid by fares or employer subsidies--although other riders (and destinations) in their system were far more heavily subsidized. While it is easy to sympathize with the financial burden under which most systems operate, it is still important to ask the simple question: is it fair to ask reverse commute riders, who are often poorer and more disadvantaged, to pay a greater share of the cost of transit service--when that service is so much more important to them?

This report has four major sections. The first briefly describes the changes in demographic and employment patterns which have fueled new concern over reverse commuters; the second describes the ways in which historical reverse commute services were provided. The third section describes current services provided by four different types of providers: *private for-profit, private not-for-profit, public non-transit agency*, and *public transit operators*. The last section summarizes and considers the policy and planning implications of these findings.

SUBURBAN GROWTH AND INCREASED REVERSE COMMUTE

INTRODUCTION

Nationally reverse commute trips increased almost 9% between 1970 and 1980. However, these are aggregate metropolitan figures: 25% of those living in the inner city were making reverse commute trips in 1980. Moreover these numbers are not corrected to account for annexation and growth in central city boundaries in the ten year period so they clearly understate the true dimensions of the reverse commute phenomenon--one created or enhanced by the rapid suburbanization of the nation's jobs and homes.

Some individual metropolitan areas experienced even greater changes in traditional commute patterns. A 1991 study in the Washington Metropolitan area found that reverse commuting from the core increased 45% between 1980-1988, to account for one in five trips in the region in 1988[2]. A 1985 study found that in the two decades between 1960 and 1980 reverse commute travel increased 66% in the Baltimore region[3].

Reverse commuting grows from the inability (or perhaps unwillingness[4]) of certain workers to move their homes to the suburbs to follow the jobs [5 6 7 8 9]. At the same time that the bulk of employment growth has gone to suburban areas, the kind of jobs remaining in the central cities have become increasingly mismatched to the skill levels of

central city residents[10] [11] [12] [13]. Thus many inner city workers seek the suburban jobs still matched to their skills and are forced to become reverse commuters [14]; in so doing they generally incur more expensive and longer commutes in both time and distance with fewer and poorer transit options[15] [16] [17] [18].

In addition, patterns within the central city have also created sometimes "hidden" (or ignored) transportation problems for even those inner city residents with central city jobs. Since there has also been dispersion of employment **within** central cities as well, traditional transit services operating along radial corridors originating in the CBD may provide less than optimal services for those inner city workers with central city jobs. Below these trends are discussed in greater depth.

SUBURBAN TRENDS

The majority of population growth in the last three decades has been in the suburbs[19]. The dimensions of this suburban population growth are staggering: while U.S. population rose 56.1% in the forty years since WWII and metropolitan areas grew 76.1%, central cities only grew 49.9%. In contrast the suburban population grew almost 200% in the same years! In short most of the increase in metropolitan population was actually in the suburbs; 86% of total US population growth since 1970 has gone to suburban areas[20].

More importantly most new jobs in the last thirty years have also gone to suburban areas in all parts of the country[21]. Between 1960 and 1980 83% of all metropolitan job growth was in the suburbs--which now have over 60% of all U.S. jobs. These patterns are uniform; even in slow-growth parts of the country with declining population (such as Philadelphia, St. Louis, Pittsburgh, and Buffalo) suburban employment growth far outstripped total employment growth--these areas experienced suburban job growth even when total job change was negative[22]. For example between 1979 and 1987 the City of Milwaukee lost almost 30,000 jobs but the Milwaukee suburbs gained over 36,000 jobs during the same time period[23]. As a result of the tremendous increase in suburban population and jobs, the majority of work-trip growth, roughly 70%, was in the suburb-to-suburb trip pattern.

Between 1960 and 1980, the reverse commute, from central city to suburb, grew as much as did the central city to central city commute--8.5%--to constitute 8% of all commuter travel but over one fourth of the trips of central city workers. In 1980 roughly five million American workers were travelling from the central city to the suburbs for work, more than double the 1960 number. Strikingly, 5.6% of all those workers used transit for their work trip (compared to 1.6% of workers living and working in the suburbs), in spite of the real disadvantages involved.

Of course many central cities did experience absolute job growth in the last twenty years and remain viable work places. But central city employment growth has been

overwhelmed by employment growth in the suburban rings. A crucial fact is that while the number of jobs in the City centers may have either stayed constant (although the percentage of total regional jobs was declining) or even grown those central city jobs are very different from those traditionally found in the CBD--there are few manufacturing or production jobs and many high skill information processing and professional jobs[24] [25].

The proportion of manufacturing jobs across the country fell from a third after World War II to under a fourth by 1982. Some areas felt the loss even more profoundly; in New Jersey manufacturing dropped from a third of all jobs in 1970 to less than one in five jobs in 1986[26]. Thus low skilled inner-city workers may be disadvantaged as much by the nature of the jobs left in (or coming to) the central city as they are by the movement of other jobs to the suburbs.

The problem is probably far greater than the data given above suggest. Since many Southern and Western cities have grown in area (through annexation) over the same time they have grown in population, it seems clear that the true extent of reverse commute has been underestimated. For example, a worker who was considered a reverse commuter in 1970 would not be so considered in 1980 if the city in which s/he lives annexed the area where s/he works--even if the direction and travel distance were exactly the same over the ten year period.

CENTRAL CITY TRANSPORTATION PROBLEMS

Most workers, regardless of their place of residence, have responded to the suburbanization of employment by turning to the private car--less than 2% of all suburb-to-suburb commutes were made by transit in 1980. However, quite apart from the external costs imposed on society by increasing auto use, and the impact on transit systems facing ever-declining markets, many inner city residents either do not have cars or spend a considerable and disproportionate part of their incomes to maintain a car.

Noted sociologist and demographer John Kasarda has commented,

> An additional...impediment faced by inner-city minorities is their increased distance from current sources of blue-collar and other entry-level jobs. As industries providing these jobs have dispersed to the suburbs, exurbs, and nonmetropolitan periphery, racial discrimination and inadequate income have prevented inner-city minorities from moving with their traditional sources of employment. Moreover the dispersed nature of job growth sites make public transportation from inner city neighborhoods impractical, requiring the vast majority of city residents who work in peripheral area to commute by private vehicles.[27]

The impact of the disparity between home and available jobs can be seen in a variety of ways. Recent work focusing on single mothers in the paid labor force has found that

such workers commute far longer distances than comparable married women or male workers, although traditional theories predict short commutes for those with low income. Studies in cities as disparate as Toronto and Houston, Rochester, NY and Dallas has found that single mothers living in the inner city have been severely disadvantaged by the suburbanization of jobs.

Kostyniuk and Kitamura found that, except for the very poorest women who did not drive, single parents in Rochester, NY made more trips and travelled further for all purposes than comparable married workers[28]. Johnston-Anumonowo found that although single women with children in Worcester, Massachusetts were less likely to own cars, they were more likely to make their work trips in cars; she also found that single mothers had longer work trips than comparable married women[29].

Rutherford and Wekerle studied single and married workers in a Toronto suburb and concluded that single mothers spent more time travelling to work and that they were less likely to work in the suburb in which they lived than comparable married women[30]. Rosenbloom found that single mother in Houston and Dallas had very different travel patterns than comparable married women, generally travelling further and using a car more often than either married worker at all but income levels below $5,000 a year [31].

Inner city residents, particularly the single women who were often the focus of the reverse commute projects described in this report, have been put at serious risk as they try to combine employment and household responsibilities in the face of the need to reverse commute. One scholar has noted,

> With the continued increase in service jobs throughout the economy and the continuing suburbanization of jobs in general...single mothers will be adversely affected by having to endure longer commutes. Coupled with their relative deprivation of private automobiles, single mothers in poor carless households...are likely to be most affected and may even be forced to drop out of the labor force[32].

Kostyniuk and Kitamura concluded,

> One of the forces that have been at work against transit-dependent workers is employer relocation. As part of the continuing suburbanization process, employers are relocating from central cities into the suburbs, where provision of viable transit services is known to be costly and ineffective[33].

Central city residents may also be disadvantaged in a different way. It has often been assumed that those living in the center city have adequate transportation resources to obtain central city jobs, that they only have problems with regard to suburban employment. However, what constitutes the central city is far larger than traditional core area neighborhoods--the travel trends described above may understate the number of

inner city residents who are both travelling some distance to work, and, travelling out from the core of the city.

The Bureau of the Census definition of "central city" coincides with the **legal boundaries** of a city, and is not limited to the CBD of that city. In many cities, particularly those in the South and the West, this definition would include low density residential areas 20 to 40 miles away from the traditional city core, areas that commonly would be considered "suburban." In Houston, Texas, for example, an inner city resident could be making a 30 mile one-way work trip away from the central city and not be considered as a reverse commuter! In Jacksonville, Florida an inner city resident could cross three county lines to go to work and still not be classified as a reverse commuter.

Eno Foundation data show that an overwhelming percentage of work trips destined for the central city are, in fact, destined for areas outside the traditional core. Five times the number of work trips originating in both the suburbs and the central cities of metropolitan areas were destined for outside the central city. Fewer than one trip in seven considered to have a central city destination was actually intended for the CBD [34].

These data raise another issue--given the fact that many Southern and Western cities have grown in area (through annexation) over the same time they have grown in population, it seems clear that the true extent of reverse commute has been underestimated. For example, a worker who was considered a reverse commuter in 1970 would not be so considered in 1980 if the city in which s/he lives annexed the area where s/he works--even if the direction and travel distance were exactly the same.

Clearly there are a large number of central city residents who also work in what the Census defines as the Central City have problems which have not been explicitly recognized or measured. The extent of the real reverse commute problem--where that is defined as a central city worker travelling some distance out from core--is not really known but has been clearly underestimated by researchers using census data to a) define suburbs and b) count the number of reverse commuters.

HISTORICAL ATTEMPTS TO PROVIDE REVERSE COMMUTE SERVICES

This study had four parts; in the first the Research Team conducted an overview of state-of-the-art of reverse commute projects with a three part data collection Phase. This section describes the results of an intensive literature search designed to identify historical reverse commute projects reported on in the scholarly or professional (report) literature. The subsequent major section describes current or recently completed reverse commute projects, focusing specifically on the large number of different providers who today operate such services.

THE 1960'S TRANSPORTATION EMPLOYMENT PROJECTS

National Experiences

In the 1960's, when reverse commute travel accounted for roughly 7% of all trips, the Federal government developed a series of demonstration projects designed to establish long term viable public transit links between the inner city and growing suburban employment concentrations. The initial projects were admittedly spurred by the 1965 inner city riots in Los Angles, Chicago, Detroit, and other large cities; the widely quoted McCone Commission report on the causes of the Watts (Los Angeles) riots, commented,

> Our investigation has brought into clear focus the fact the inadequate and costly public transportation currently existing throughout the Los Angeles area seriously restricts the residents of the disadvantaged areas such as south central Los Angeles. The lack of adequate transportation handicaps them in seeking and holding jobs, shopping, and fulfilling other needs[35].

The federally funded projects were first called the "poverty transportation program" and then re-named Service Demonstration Grants. Between 1966 and 1970 the Federal government paid for 14 demonstration projects in 14 cities, attempting to establish 50 different services or routes; the funds went almost entirely to community groups and actors. The total cost to the Federal government for these specific projects was approximately $7.0 million in 1965 dollars; with state and local contributions, and adjusted for inflation, the total in 1992 dollars would be close to $35.0 million. In addition, through the mid-1970's the Federal government also paid for several reverse commute demonstration projects, including the Shirley Highway Express Bus Demonstration, where the grantee was always a transit operator.

John Crain, then of SRI, is the most quoted chronicler of the history of the first set of more community-based projects although his work was published prior to the completion of most projects. Crain suggests that these projects had three phases; in the first, 1966-67, there was a rush to throw money at the unemployment problem by funding community groups to provide needed transportation services to suburban locations. In Phase II, 1968-69, the concept was streamlined and there was a focus on cost cutting; moreover there was a greater emphasis on developing conventional bus routes where needed to coordinate with manpower programs. He styled the third phase, in which he was operating, as "controlled research."[36]

The more polished focus that appeared in the second phase stressed the fact that there were high development costs relative to uncertain profitability in starting reverse commute transit lines. The Federal grants therefore were designed to support the development of reverse commute links to the point where they would be taken over by the existing public transit operator. The emphasis on ending ghetto unemployment

through transit was considerably softened.

By the time the second and third phases rolled around (the early 1970's), the success of reverse commute projects was being defined and assessed differently by different actors. Most federal officials, and Crain himself, stressed the long-term viability of reverse commute services provided by traditional transit operators. Most local and state actors and local grant recipients continued to stress the original purpose: finding employment for inner city residents.

In 1970 when Crain's evaluation was published, it appeared that 8 of the 14 projects could conceivably be seen as a success using the Federal definition: projects that resulted in, or would be likely to result in, permanent transit route development. Success was not defined at all in terms of employment goals because, as Crain observed, ***the successful routes were those which serviced more than one user group including tourists and people already employed at the site.***

For example, in Chicago, one of the projects which Crain considered a success, an express bus route from the end of a rapid transit line to O'Hare Airport was used by a significant number of inner city residents to access jobs at the airport. However, the bus line itself was a "success" only because it was widely used by air travellers from downtown hotels and businesses; in fact, less than 30% of the riders on the line were workers. In addition, although studies found that 40% of those who were workers were new hires, and two thirds of the new hires said that they depended on the new transit line for their jobs, more than half of the workers had stopped riding the bus a year after the survey on which Crain based his assessment[37].

In fact, Crain estimated that ***only one of three riders in all fourteen projects obtained a job because of the service provided and most of those had already been employed elsewhere***--less than 3% (on average) of all new hires in the 14 projects had been on welfare prior to the initiation of the transportation service (in half of the project none of the new rider/employees had been on welfare). In the Chicago project, for example, only one in four new hires came from a family living below poverty level. He concluded, "...the impact on welfare is small...most welfare recipients are not in a position to accept employment whether transportation exists or not."[38]

The Boston project exemplified services that were clearly unsuccessful from the onset. A series of routes were established to take inner city residents to massive and growing employment concentrations on the Route 128 ring road; the service was offered for six months but ridership was small and the operating deficit per passenger trip would approach $11 in 1992 dollars. Although ridership patterns were not well documented, it appears that fewer than 30% of the riders attributed their jobs to the service or felt that they would have to seek others jobs if service were discontinued[39].

Another one of the aspects which the historic reverse commute projects share with more

recent projects is ***a tendency to claim success for projects without much firm evidence***; in the early projects success was almost always stated in terms of jobs gained for unemployed inner city residents. However a U.S. General Accounting Study found that almost all the claims were unsubstantiated, exaggerated, or based on very early results. Projects that did make some attempts to monitor employment gains often asked if the rider could get to one specific job without the subsidized transportation; they did not ask if the rider had other equivalent job opportunities.

Moreover ***few projects followed new hires over any time period to see if they were still employed or riding***. In addition projects tended to aggregate all job hires to report as successes, although later ones only got their jobs in the place of the earlier "successes" who had quit or been fired.

Although Crain felt that more than half of the routes supported by the program had been or were likely to be taken over by the local transit operator, he also concluded that ***reverse commute transit was not potentially profitable for most public transit operators*** and this explained their lack of interest in the concept. Writing in 1970, Crain suggested that,

> The major reason for the marginal developability of the reverse commute route is the sprawling automobile orientation of suburban industry. The organization of work locations, shift times, and overtime requirements is designed with the auto in mind. It is exceedingly difficult to serve such employment sites well with conventional busing.[40]

He also noted, however, that direct Federal aid to community groups to develop conventional routes had made transit agency interest and support even less likely. In fact he felt that the lack of involvement by the mass transit industry had "...undermined the program and made testing of innovative operation rather meaningless."

In 1982 Alan Altshuler and his colleagues, in analyzing the experiences of these projects, concluded,

> ...these demonstrations...produced only meager benefits. They may have helped several thousand people obtain jobs, but it was uncertain that the beneficiaries would have been unable to find jobs in the absence of the projects. A typical pattern, moreover, was that riders who used the special transit services to obtain jobs used some of their first earnings to purchase cars[41].

In fact Meyer and Gomez-Ibanez report that a special 1970 census of employment of low income residents found that less than 1% (5 out of 1,000) of those not in the labor force who wanted or were looking for a job said that transportation was the principal reason they couldn't find work or weren't looking for work[42].

TEP in Watts and East Los Angeles

The Principal Investigator of this study was a young researcher in one of the 14 reverse commute projects analyzed by Crain; from January 1969 to September of 1971--when the project was canceled--Dr. Rosenbloom was the on-site representative of consultants hired by the State of California to monitor the Transportation Employment Project (TEP) (a name it retained) in Watts (South Central Los Angeles) and East Los Angeles. She was involved in the process both locally and nationally long enough to follow all 14 of the projects described by Crain--and to see all but three fail by Crain's standards. That is, only three of the 14 projects ultimately developed routes that were taken over by the local transit operator.

The Crain and other findings described above complement those of Dr. Rosenbloom and her colleagues who, between 1969-1971, chronicled the experiences of the South and East Los Angeles project, often comparing it to the other projects, in a series of working papers and a final report to UMTA; these findings are summarized here[43] [44] [45]. The Watts project was one of Crain's successes in that a cross town route which it developed (on Century Boulevard to the airport) was taken over by the Southern California Regional Transit Authority. But in most other ways, the Los Angeles TEP was a failure on a number of fronts (other than putting this researcher through school) and a classic illustration of the problem of tying ghetto unemployment to transportation services.

Although by 1970 the Federal government had backed away from its earliest goals of attacking ghetto unemployment by providing transportation, most Los Angeles grant recipients (and the state and local agencies also providing funding) still *clearly believed that there was an important link between reverse commute services and suburban employment.* For these local actors, the overall goal of the service provided was to get people off of welfare by taking them to suburban jobs.

Moreover several labor economists associated with the Watts project felt that a serious ghetto employment problem was the nature of *the job search and information dissemination process*; that is, most people hear about job vacancies from people already employed at a firm. So if few inner city residents (with or without transportation) work a suburban plant, few of their neighbors will hear about potential jobs. Getting more people to suburban jobs might ultimately mean getting more appropriate information into the neighborhoods about suburban employment opportunities.

But ***there was little evidence in Watts or elsewhere that reverse commute services got people jobs or even better jobs***; more than half of all riders carried on most of the TEP routes were people who were already employed at the suburban location. In one service, the TEP made it possible for a large garment manufacturer to move farther out from the Los Angeles central city (to a lower taxing suburban jurisdiction) by providing subsidized transportation to all his Chicana workers from East Los Angeles. While all

these jobs were considered "successes" by the project staff, they might give outsiders pause (and the situation certainly did not please the City of Los Angeles).

Although the TEP project did not make a strong effort to track all workers and riders, it appeared that ***there were high turnover rates in employment,*** for reasons ranging from workers being fired to quitting because of unwillingness to continue the long commutes involved. Although Crain estimated average attrition among the 14 projects at 7% he was writing fairly early in the life of most of the projects. Most of the TEP routes had far higher turn-over rates with rates well above 40% within 6 months.

As a consequence of high job turn-over rates and car-buying by the few successful workers ***maintaining ridership was very difficult.*** TEP staff quickly began to solicit ridership among those already employed at the suburban locations to which the vans travelled. We heard a number of illuminating (if possibly apocryphal) stories--one involved the worker who left his Thunderbird at home every day because he became a TEP rider. Another story involved the project driver who turned in far more money daily than appropriate for the number of riders on his roster; at first he claimed he was picking up casual riders (a practice allowed by TEP). Ultimately it appeared that he was worried about his job in the face of rapidly falling ridership; he thought it worth the investment to put his own money into the fare box to give the illusion of higher ridership!

One ridership attrition example raises several important issues. A route that ran from Watts to a defense plant at the airport had fairly high ridership, with all riders being new job hires--at least initially. The defense contractor employer worked with TEP project staff and was able to offer night time maintenance jobs at salaries significantly above minimum wage. But over three to four months the TEP staff noticed significant drops in ridership and began to investigate. It appears that most of the inner city residents had been hired pending security clearances; since many had minor or even major arrest records, their requests for security clearances were rejected by the relevant government agencies in the months following their hiring and they were gradually fired.

Clearly ***many genuinely cooperative employers made relatively naive assumptions about the work force which they were being offered.*** Moreover, ***the vacancies that did exist were not well matched to the skill levels and training of unemployed inner city residents.*** Many suburban employers assumed that the real cause of ghetto unemployment problem was transportation so they simply didn't recognize that there might be different work experiences, cultural assumptions and expectations, and training needs among potential inner city workers--let alone possible arrest records. Many firms were simply unwilling or unable to deal with the additional training and other needs of previously unemployed inner city residents, particularly young people.

In addition, it is hard to separate out the last conclusion from the clear--if undocumentable--finding that ***many suburban firms discriminated against minority***

workers because they were prejudiced or had stereotypes about inner city residents. TEP project staff often worked months with apparently cooperative suburban employers who never seemed to get to the stage of hiring any workers. Other projects noted the same problem; one staff person commented, "Some employers were using the transportation barrier as a convenient excuse for not hiring for other reasons[46]."

Another major finding that the TEP Project shared with others was that ***the assumption of major job vacancies in the suburbs were largely unsubstantiated.*** Then, as now, many suburban employers complained about their inability to find and keep workers but they weren't willing to raise wages, pay for training or recruitment, or subsidize transportation services--which meant that job vacancies couldn't have been too serious a problem for them.

It's important to note that the major difference between the jobs sought in Watts (and most of the other UMTA SDG projects) and those sought in today's reverse commute services is that--poverty employment projects in the 60's sought much better, higher paying production jobs. No project would have thought of focusing on service sector or minimum wage jobs. Ironically, therefore, it was far more realistic for these earlier projects to expect that employers would be willing to subsidize some element of the training or transportation of workers. Unfortunately, that was rarely the case.

As suggested by Crain and the other analysts cited, TEP ***transportation services were very expensive per rider served and even more expensive per worker placed***; one study found that they were triple the average cost for transit service at that time[47]. Clearly part of the expense was paying full time paid drivers who were rarely used for more than half the day but who could not be hired part-time, often for political reasons. (Most drivers were originally hired full time before anyone really thought through the operational details; therefore the project would have to demote full time drivers to part-time, which is considerably more difficult than hiring part-time drivers to begin with.)

In an effort to better use underutilized vehicles and drivers, the TEP project staff and grantees began the development of mid-day travel services. Several two-to-three times per week shopping services were inaugurated with great fanfare from major housing projects. TEP staff selected large, clean grocery stores at some distance from the housing projects in order to avoid all the obvious problems of ghetto stores: high prices, small sizes, poor selection, and inferior maintenance[48]. Unfortunately ***most of the mid-day services were not successful because they failed to respond to the real needs of inner city shoppers.***

Housing project residents rarely have checking accounts and often shop in small local stores which cash their assistance checks. take food stamps, and give credit. In many cases, residents already owed most of their check to local store keepers by the time it came and had little disposable cash to shop elsewhere. In addition, while project staff thought that shoppers would much rather buy larger sizes of a product, incurring

substantially lower unit costs, many shoppers simply could not afford to buy the larger sizes. Moreover, in the late 1960's not all non-ghetto stores took food stamps or they made an embarrassing process of doing so.

Another major problem was children--many women could leave their children under the watchful eye of a neighbor for the few minutes it took to shop locally, or they could take their children with them to a neighborhood store. If they took the TEP van, they generally had to bring several small children and this created both a serious capacity problem for the TEP staff and a financial problem for the rider if the children were charged a fare. (In an effort to address the capacity problem at one housing project, staff insisted on charging children the full, albeit small, fare. Not surprisingly, many women stopping riding altogether.)

TEP project analysis also focused on two additional very significant findings, not mentioned by Crain or other analysts. First, the ***TEP projects drove out of business existing neighborhood transportation entrepreneurs.*** Although the McCone Commission commented on the lack of transportation in the inner city--they were simply wrong. By almost any measure, Watts and East Los Angeles had the best public transit network in the region in the 1960's--admitting the inherent failings of public transit in a sprawling city like Los Angeles.

In 1967 Watts was served by three municipal bus operators in addition to the SCRTD; it was also served by a small three route black private bus operator and three minority owned taxi operators. **All were gone in 1972.** Admittedly most had been marginal operations at best, and other forces were at work (for example, the SCRTD took over some of the municipal operator lines), but it didn't help that the TEP project established new operations to compete with their shaky businesses. A look at the reports of several other UMTA SDG poverty projects suggests similar impacts.

Second, TEP project economists were able to show that in 1970 ***there were more entry-level and low skill production jobs within the central city than there were low skilled workers.*** In short, no one had focused at all at jobs much closer to inner city residents because of the emphasis on growing suburban employment opportunities. Clearly the belief that unemployment was caused by lack of transportation obscured the abundance of job opportunities available within more reasonable commuting distance with current transit options. It might have made far more sense to train and deliver potential workers to these employers.

It is hard to dispute Myer and Gomez-Ibanez' evaluation of the transportation employment link as played out in the early transportation employment projects,

> The results of these demonstration projects were disappointing...Most of the new routes suffered from low patronage...and there was little evidence that many jobs were found because of the new bus service, so that the cost of providing this

service per job attachment was probably extraordinarily high. When compared with racial discrimination or lack of skills and education, employment decentralization and inadequate or expensive public transportation appeared to be relatively minor causes of unemployment (or underemployment) among low-income central-city residents [49]. (emphasis added)

REVERSE COMMUTE PEAK HOUR BUS SERVICE

In the mid-1970's UMTA funded two different kinds of reverse commute projects which had only a tangential employment focus: a Baltimore project and the Shirley Highway reverse commute demonstration. Both involved grants to existing transit operators. The first was an acknowledged failure, the other was considered to be a success. Robert Wakesman studied both projects for the National Bureau of Standards in 1974 and concluded that four variables lead to successful reverse commute services provided by traditional transit operators:

1) the route had to serve a very concentrated employment area (at least 2,500 employees) with no shift work (ie a maximum start-time variation of 90 minutes);

2) the route had to be geared to those already employed at the site and not just to targeted inner city residents;

3) the route had to fit easily into the existing with-flow commuter bus schedules; and,

4) the route should, if at all possible, be paired with an existing successful peak period with-flow route.

As an illustration of the importance of the last two factors, Wakesman pointed out that the Baltimore project was a failure carrying 27 passengers because the operator needed 63 passengers to meet marginal costs. On the other hand, the Shirley Highway reverse commute project was a success carrying 19 passengers because that's all the operator needed to meet marginal costs[50].

Note that there are really three major differences between these 1970's projects and the 1960's poverty-transportation projects. First, and most obviously, the funds went to a transit operator and not a community group--deliberately, as a matter of Federal policy. Second, the needs of reverse commuters were only accommodated if they meshed with the needs of traditional commuters and only if they paid all of the marginal costs of operation (something it is unlikely that traditional peak period commuters came close to doing). Third, there was little discussion of the role of transportation services in addressing ghetto unemployment. In short, no special efforts were considered for

reverse commuters, there was no explicit transportation-employment link, and reverse commuters were not subsidized in any real way.

SUMMARY

The earliest reverse commute projects were generally failures whether measured by jobs gained or new transportation services created and sustained. The only possible "successes" were those that did little more than effectively use underutilized outbound capacity on traditional peak hour bus service.

The next section describes a cross section of the reverse commute experiments which have been funded by the Federal or other governments in the last few years, contrasting their experiences with the generally forgotten lessons of the 1960's projects. Although the newer projects focus on two elements largely missing in the earliest projects--a meaningful role for the private sector operator, and, using transportation services as part of a package of community empowerment tools, it is hard to miss how many of the sad lessons about the transportation-employment link are exactly the same.

MODERN REVERSE COMMUTE PROVIDER ROLES

INTRODUCTION

This study had four parts; the first was designed to conduct an overview of state-of-the-art of reverse commute projects with a three part data collection Phase; first an intensive literature search was conducted to identify current and historical reverse commute projects reported on in the scholarly or professional (report) literature; the historical examples are described above.

Second, the study Team asked key FTA, state, and professional organizations and agencies to identify additional projects and contact people and/or reports. Finally the Study Team used computer data bases to identify and print the full text of newspaper articles in 20 major urban newspapers which dealt with some aspect of the reverse commute problem--these articles often identified additional projects or additional information about projects previously identified.

Once a wide variety of projects were identified they were divided, in the second Phase of the Study, into four main categories of reverse commute providers: *private for-profit, private not-for profit, public non-transit agencies*, and *traditional public transit providers*. Then the Study Team analyzed the operations, impact, and implications of each identified project. When there was recent published information on a project the Team used that material, although the Team occasionally called project personnel for

updates*. The Team directly called all of the other identified projects over a six month period, sharing the written account prepared on each project (which appear in the appendix of the full report) with the informants, asking them for corrections and suggestions.

Table One shows the four main categories of providers and the kind of services which they are or could be providing. Each of these four provider types is discussed below.

PRIVATE FOR-PROFIT PROVIDERS

There are two major types of private entrepreneurs: those that provide reverse commute services as an ordinary business and those that provide reverse commute service under contract to public agencies or private firms. The former can make a profit without any public subsidization, the latter cannot (at least for the subsidized service in question.) Obviously one operator can provide both types of services.

While the literature has lately been full of examples of private operators providing commuter service without subsidy[51] [52], it is less clear that many private operators provide reverse commute service. Although there are anecdotal stories, there are few firm data because a) the services are often illegal (or to use the fashionable term "extra-legal") in that they violate state or city transportation ordinances or franchises and b) they are often very small scale, hard to find, and even less likely to have the time to talk to interviewers[53] **.

Farkas and his colleagues report, for example, that there are six small firms in the Baltimore area which operate regular commuter services during peak hours between suburban activity centers and the City of Baltimore, serving "very specific market niches that have not been served by....MTA [the regional transit operator]." These firms, although apparently legal, have not been able to expand because they are small and relatively unsophisticated; moreover they have to compete with both private firms which are subsidized indirectly through public agency contracting and with private not-for-profit providers (such as those discussed in the following sections) which are very heavily subsidized[54].

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* This turned out to a valuable practice because several recent reports on these projects turned out to be more hopeful than useful. That is, several oft-cited reports described the birth but not the death of a number of highly publicized projects.

** In 1986 while conducting a transportation survey in Texarkana (Texas and Arkansas) I went with a research team to a location in the "ghetto" where a private operator daily took workers 40 miles out of the city to a large Army arms depot. The morning we showed up no vehicles were seen; the operator, who was probably operating illegally, had apparently been "warned" of our pending visit, and misunderstood our purpose.

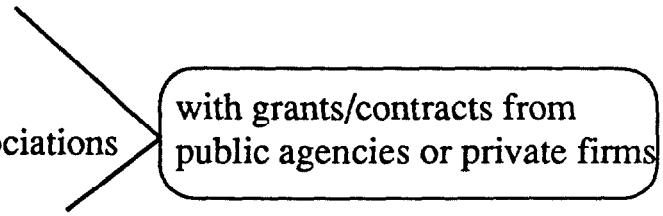
Basic Providers
and Provider-Roles in Reverse Commute

Private For-Profit Providers

- •entrepreneurs (profit w/o subsidy)
- •contractors to private firms and public agencies (subsidized profit)

Private Non-Profit Providers

- •social agencies
- •tenant management associations
- •transportation management associations



Public Non-Transit Agencies

- •contracting with private or public operators

Public Transit Operators

- •traditional operations
  - -feeders to rail service
  - -re-routing and re-scheduling traditional routes
- •less traditional operations
  - -contracting with private providers
- •non-traditional operations
  - •vanpooling
  - •brokering

In addition, Farkas et al describe the extensive "hack" industry in Baltimore--unregulatedprivate cars providing group ride taxi-like service in inner-city neighborhoods (these hack services are similar to illegal services found in other cities and described by Rosenbloom[55] [56] [57] and others[58]). Unfortunately the Baltimore researchers have no evidence that these operators currently provide any significant reverse commute service, although they clearly have the potential to do so.

Other than the Baltimore data, the Study Team was unable to both identify and interview any operators who were providing reverse commute services entirely on their own, that is, who were making a profit without government intervention or subsidy of any kind. There are more examples of private operators serving as contractors and these are addressed in the sections below, which describe the kinds of agencies and organizations which contract with private operators to provide reverse commute services.

PRIVATE NON-PROFIT PROVIDERS

The Team identified three classes of non-profit providers involved in some way in providing reverse commute : social and human service agencies whose major mission was something other than transportation, tenant management associations whose goal was generally to help public housing project residents get and maintain jobs, and transportation management associations (TMAs) which usually work with suburban employers and employment complexes to deal with a range of transportation issues.

Social and Human Service Agencies

There are undoubtedly hundreds, if not thousands, of human service agencies across the United States attempting to take inner city residents to expanding suburban employment concentrations. Below we highlight just two that have appeared in the literature or have been brought to our attention.

Project Libertad in Washington, DC began in 1985 as a pilot project organized by one man, Paul Leach, who was associated with a homeless shelter serving Cubans, Salvadorans, and other Hispanics. In 1990 the project received a $20,000 UMTA Section 8 grant, administered by the Washington Council of Governments. From its inception the Project was designed to use transportation to link suburban construction jobs to inner city workers, particularly the homeless. The project began by taking homeless men living in shelters to landscaping jobs at suburban construction sites. The project started operation with a van lent by the Red Cross and later used a donated bus driven by Paul Leach himself; the project asked riders and employers for donations.

Today Project Libertad has shifted away from its focus on the homeless and serves neighborhood residents, providing a more reliable workforce with a better reputation. The Project currently charges riders $2 and employers $1-2 per trip. The Project uses school buses because they are cheap and easy to get so the driver is the main expense.

A serious continuing problem has been that the construction landscape jobs on which the Project concentrates are seasonal jobs in the best of times; since the construction industry is very cyclical it has not been the best of time for several years. So workers are being recruited for short term temporary jobs with no hope of advancement, training, or stability in the workforce. Conversely, most of the workers to whom transportation is provided have serious problems entering the labor force: they often can't drive, don't speak English, and are untrained. Given the seasonal nature of the jobs and high employee turnover, Leach has found keeping the Project going to be very demanding work. In fact, he informed us that he will be leaving to take a job at a rehabilitation center for alcoholics [59].

Community Family Life Services (CFLS) in Washington, DC. a non-profit organization founded in 1969 and associated with the First Trinity Lutheran Church, began the Employment Transportation Assistance (ETA) program in September 1985 to assist poor homeless and unemployed DC residents to take advantage of suburban job opportunities[60]. The ETS program combines employment screening and training programs with van service to suburban jobs.

The ETA program was very successful from the beginning. In the first six months, using a donated van and volunteer labor, CFLS was able to bring the Marriot Corporation at Dulles airport eight unemployed city residents, a number that soon grew to 30 and then to 200. Other companies signed up and by March of 1986 CFLS was simply unable to handle the demand for its service. They began contracting with a private operator for daily service with 14 vans and eight drivers to transport roughly 150 people.

The ETA program allows new employees to ride free for two weeks (until they receive their first pay check); initially riders were charged $3.50 per day or $18 per week. The program handled a non-payment problem by asking employers to withhold the fare from employee paychecks. Although the program began with donations in late 1986 they sought and received an $80,000 UMTA Section 6 grant to help with operations. Today clients pay $3.50 per day and companies pay $15 a shift for transportation.

Although everyone involved with the project considers it a success--the project having obtained jobs for over 950 DC residents since 1986--there have been fairly serious problems. The "official" employee attrition rate is between 30-40% and companies have complained about unreliable employees. An internal CFLS study conducted in April 1988 found that only 46 of 255 people hired between June of 1987 and January of 1988 were still employed--that is, at the end of an eleven month period only 18% of those who got jobs through the program still had those jobs. (Of those that left, only 8% reported leaving to take other jobs.)

The recent downturn in the economy has substantially reduced the number of suburban jobs available; starting in 1987 major suburban employers (largely hotels and nursing

homes) began dropping out of the program, citing problems from an unwillingness to subsidize employee transportation, to an unwillingness to hire District residents. Currently the program transports about 60 people. One final note: most of the locations to which the ETA program transports people are served by conventional public transit but either the time or the fare is seen as prohibitive.

Tenant Management Associations

The Federal Transportation Administration's Entrepreneurial Services Program (ESP) is designed to encourage the private sector, especially minorities, to enter the transportation industry and create efficient, market-responsive transportation services. Under its Challenge grant program, the ESP program has directly funded several reverse commute operations centered at public housing projects.

In addition, the ESP program has funded the National Center for Neighborhood Enterprise (NCNE), a privately funded organization which sponsors projects aimed at enabling unemployed groups to become self supporting and to participate in economic activities, to assist nine public housing tenant management associations in establishing transportation services. The NCNE grant was specifically designed to promote reverse commute service by Tenant Management Corporations, organizations formed by the residents of publicly-subsidized housing projects. The experiences of several projects in both types of tenant management programs are described below.

ESP Challenge Grants

This section describes two non-NCNE reverse commute projects funded under the ESP program: *Accessible Services, Inc (ASI)* (Philadelphia) and *Lakeview Transportation Service*, (Cleveland, Ohio).

Accessible Services, Inc (ASI) is a private reverse commute service operating in and around Philadelphia; it began with one of the first ESP Challenge grants in 1988. Strikingly the original project actually completely failed[61] but a reorganized version is now operating; its current operational patterns are described by Farkas, et al.

It is interesting to analyze the initial failure*. A series of articles in the Philadelphia inquiry in mid-1989 reported that one year after the award of the $82,500 grant almost all of the grant money had been spent, without one single trip having been made. An official of the Philadelphia Chamber of Commerce reported that the project had failed because employers did not need low skilled labor, and weren't interested in hiring and

* Although press reports make it clear that the project was totally stopped and all concerned admitted its failure, none of the (previously) published reports make clear how significant and clear cut a failure the first project was.

training workers, particularly black workers--because of racial prejudice and stereotyping[62]. Mark Welsh, the operator of the original and the current operation, was quoted as saying that his problems occurred because few of the public agencies or private firms subsidizing the transportation paid on time. Moreover many of the employers would not hire individual employees unless and until they had been certified for state and federal tax credits.

A study by the National Council of Regional Government offered some explanations for the initial failure of the project, its subsequent reorganization as a broker, and continuing problems, themes which echo with those expressed above (and discussed briefly by Farkas et al.) The NARC report noted that many employers were concerned about ASI's lack of experience and so refused to participate; in addition, the agency acting as the employment broker, the Urban Affairs Partnership, moved slowly and was unable to deal with the constant employment turnover. The employment turnover (between 10-15%) was the result of firings for drug use and attitudinal problems and high quit rates.

The job turnover, coupled with the tendency of successful applicants to get cars, was a problem for ASI. The NARC report concluded that ASI's major problem was getting enough reasonably qualified workers to take the jobs; to retain a ridership of 200 workers, ASI needed to find between 15-30 new workers weekly[63].

Currently ASI acts as a broker for the Job Relay System, contracting with various carriers, including a social service transportation system also run by Welch which uses FTA 16(b)2 vehicles, to provide required reverse commute services. ASI, as broker, pays $25 per vehicle hour and can, therefore break even with five passengers paying $5 per one way trip. Therefore ASI charges employers $6 and employees $4.00 for a roundtrip.

ASI is carrying approximately 150 riders per week although the number fluctuates; the transportation service is packaged with an employee recruitment service. After contacts with more formal training organizations did not work out, ASI developed its own network of community based groups and institutions which generate sufficient low skilled but appropriate unemployed individuals. Currently ASI's biggest clients are hotels and industrial employers in suburban business parks[64].

The ***Lakeview Transportation Service*** **(LTS)** project centered at Lakeview Terrace in Cleveland, Ohio received its $100,000 ESP Challenge grant in December of 1988 to provide transportation services for public housing and inner city residents to obtain suburban jobs. The Tenant Management Firm was assisted in developing its business, management, and operational plans by three FTA contractors. With an additional $150,000 raised from private sources, LTS purchased a van, bought insurance, and hired drivers and a manager.

LTS has been plagued by problems since its inception. The consultant reports expected

substantial fare box recovery from passengers and even more substantial employer subsidy. In addition, the operational plan assumed significant fare-paying mid-day shopping and recreational travel. None of these things happened. The manager has had continuing difficulty in developing job opportunities within a reasonable commuting distance which will provide any transportation subsidies and he cannot obtain sufficient revenues from the fares that his riders can pay from jobs in the $4-5/hour range.

Moreover, the manager has been unable to induce many residents to take jobs; he believes that this is partially because of the trip distances involved and partially because of the structure of public benefit programs. Residents who take jobs face rent increases (since HUD guidelines call for rent payments equal to 30% of income) and the loss of medical and other benefits when they get off public assistance. In his words, "People who receive AFCD and other public assistance are not interested in getting up at 5-6 AM to work for $4.00 an hour."[65]

Currently, LTS carries 14 people to work and has a contract with the City of Cleveland to transport JPTA clients to training and job interviews for $2.50 a roundtrip (carrying 8-10 clients per week on this contract). The City Contracting Officer has told us that the City JPTA administrative office contracts with LTS in order to allow any local social agency to help its clients get jobs or training; if an agency calls LTS for a job or training related trip for a client the City will pay LTS to carry the rider. Unfortunately few agencies have taken advantage of this offer[66].

The manager would like to develop other, non-work related, transportation services but reports that he is limited to providing work related transportation only. He is also is unwilling to drive excessive distances (over 35 miles one way) because of wear and tear on the vehicle and the additional (unsubsidized) expenses.

NCNE Assisted Reverse Commute Projects

NCNE used the FTA funds to enable selected tenants' associations to address reverse commute problems by initiating their own transportation services. At each of the nine sites, grants from $50 -100,000 were used to pay for initial planning, business plan development, and hiring a manager knowledgeable in marketing and transportation. Additional funds had to be raised to pay for vehicle purchases (although recipients could apply for FTA Title III funds, the restrictions involved in obtaining such grants--such as labor approval and prohibitions on charter operations--discouraged most associations.)

NCNE felt that investing in reverse commute operations in public housing communities had several important benefits: first the reverse commute would create jobs (in its operation) and increase access to many more suburban jobs. Increased employment would lead to improvements in the standard of living in public housing developments while the revenues gained would be used by neighborhood groups to expand existing businesses and to develop new businesses. Ultimately successful reverse commute

services would take the pressure off of expensive public transportation programs[67].

Initial reports on these projects were highly optimistic; a 1989 study reported, "...most planned or operating reverse commute project administrators are enthusiastic about the numerous benefits of the services to employers and inner city workers."[68] A 1990 study for Urban Mobility Corporation reported, "...reverse commute van programs can be successful where there is high unemployment in certain parts of the metropolitan area and high labor shortages in another part of the region are within reasonable commuting distances...the transportation program can bridge the gap."[69]

Unfortunately, although there are notable successes in the program, many of the projects described in these studies either never got started, have been canceled, or are limping along. In the fall of 1991, four of the nine were not operating at all and one had become a social service contractor. The unsuccessful projects seem to have fallen victim to the same easy assumptions about the link between transportation and jobs that plagued their predecessors in the 1960's.

This section evaluates three of the projects which have been described in the literature and/or which the Study Team contacted during its research: *Cochran Gardens Tenant Management Corporation* (St. Louis, MO)[70], the *Bromley-Heath Resident Management Corporation* (Boston,MA)[71], the *LeClaire Courts Service Corporation's Accel Transportation* (Chicago)[72].

In St. Louis, the ***Cochran Gardens Tenant Management Corporation*** began services in that public housing development in February 1989. The program was beset with problems from its inception, but many had to do with the difficulty of placing residents in jobs. First there was a skills-job mismatch between residents and suburban employers; second, the length of the work trip was so long (60-90 minutes one-way) that many residents were unwilling to make the commute. Finally the program was able to begin service with two vehicles to hotels in a suburban area 20 miles from the housing project, with employees paying $4.00 per round trip [73]. The program has not been able to get employers to pay any of the employee travel costs. In 1990 the projects had gained jobs for a total of 30 workers although attrition was extremely high.

Discussions in late 1991 with project staff show that the Cochran Transportation Services work with employers to gain them Targeted Jobs Tax Credit, which allow firms to save up to 40% of the first $6,000 of wages paid to economically disadvantaged people, to a maximum of $2,400 per employee. In short, many riders are gaining jobs which are substantially subsidized to begin with, for at least the first year.

In Boston, the ***Bromley-Heath Resident Management Corporation*** planned to provide a reverse commute service for its residents and other inner city residents to the expanding job market along the Route 128 corridors where there were widely believed to be many entry level job vacancies. Unfortunately just at the time that the Corporation was ready

to begin services, the employers who had been willing to help subsidize it ran into rough economic times. The Corporation did not believe that the employees could themselves afford the $4.00 round trip cost so they did not begin these services.

Currently the Bromley-Heath Management Corp. has a private subsidiary, the *Connector*, which contracts with job training agencies to provide transportation to training and to jobs using one 15 passenger van. The Connector operates strictly as a for-profit charter or contract provider, with costs paid entirely by job training services; that is, the Connector charges no fares to riders since any employee payment is handled by the training agency. Staff report that employers seem unwilling to pay anything. When the ridership volume is sufficient for fares to cover costs (a minimum of 6), the Connector provides services to the prisons so residents could visit relatives[74].

Staff report that there is significant turn-over in ridership both because job retention is not high, and, because successful employees ride only long enough to save sufficient funds for a car. The high turn-over has not posed a serious financial or operational problem because the training agency pays the costs and because only a few firms are involved.

In Chicago, the ***LeClaire Courts Service Corporation*** organized a for-profit subsidiary, ***Accel Transportation*** which operates reverse commute services under contract to (largely) suburban employers. Accel is considered to be the most successful NCNE projects; NCNE reported that Accel is breaking even after only 18 months in operation[75]. Actually Accel is not running at a deficit only because, in addition to the ESP Program, they have also received a three year grant from the Regional Transportation Authority and a grant from a local non-profit organization, the Darrow Center. Accel is committed to covering a larger share of operating costs from employers and riders and less from RTA over a three year period.

By establishing a relationship with the Chicago Institute for Economic Development to pre-screen job seekers Accel was able to convince employers that it could reduce employee recruitment and training costs. Currently, Accel has contracts with nine employers, carrying 129 riders daily in three vans to job clusters in suburban DuPage County. The thirty mile ride takes roughly 45 minutes and costs $5.50 per round trip. Riders use tickets which can be bought at Le Claire or from employers (for those employers which subsidize the service).

Project staff have had many of the problems common to both current and historical reverse commute projects tied to employment programs. Staff report that it has been difficult to find employers willing to hire black inner city residents, that the length of the work trip has discouraged many potential workers among LeClaire residents, and that it has been difficult to find natural job groupings in the suburbs (ie one firm, or several adjacent firms, willing to hire a number of workers)[76].

Farkas and his colleagues in their analysis of this project noted several key features of the Accel project which bear repeating. First, marketing studies contributed to the project weren't very realistic; the major problem was that employment projections did not consider that growth would not equally affect all segments of the market--in short that there would not be equal job growth in entry-level and service sector jobs in the nearby suburbs. Second, the interest of LeClaire Court residents in taking advantage of the transportation was strongly reinforced by the day care and after-school programs which Le Claire provided.

Our own analysis shows that the heavy subsidization of the project is a both a policy and an operational problem. On an operational level, the subsidies provided by employers are a positive feature but they also have created problems because employers require daily service even when the employee level at any given firm has dropped too low to financially justify the stop. The major grants from the private foundation and the regional transit authority are also problematic. In our interviews, project staff reported that the service might not continue when grant funding expires[77]. On a policy level, private operators with substantial public subsidies (not even contracts) are hardly a positive example of the role the private sector can play in reverse commuting.

Transportation Management Associations (TMAs) and Private Employers

TMAs are generally now-profit membership organizations designed to address traffic congestion and transportation problems in specific employment concentrations, often, although not necessarily, at suburban locations. A TMA representing a group of employers has been responsible for a successful reverse commute project in the Princeton, NJ area. In addition, there are two known examples of successful reverse commute projects organized originally by individual employers. All three projects allow employees to commute out from the center city on existing rail lines, providing them with coordinated shuttle services from the closest rail stop to the suburban employment center; all three projects operate in the New Jersey suburbs of New York City and Philadelphia and are discussed in this section of the report*.

The ***Greater Princeton TMA (GPTMA)*** was formed in 1984 as a non-profit, membership corporation whose goal was to initiate traffic reduction programs in the growing Princeton employment concentrations. Within a few years several major firms re-located from Manhattan who wanted to keep their Manhattan employees; in 1987 Merrrill Lynch initiated and paid for a shuttle to transport employees 5-7 miles from the rail station on the New York and Philadelphia line. When First Boston and American

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* Both Transportation Management Corporations and individual employers operating transportation services are covered in this section, *Private Not-for-Profit Providers*, because although we assume that the individual and member firms are designed to make a profit, the transportation services are not.

Reinsurance relocated from Manhattan they too tried to start their own shuttle services; the developer of the employment complex, the Forrestal Center, in which they were located suggesting developing one shuttle service for all three firms.

GPTMA was asked to administer and broker the service; it received an Entrepreneurial Service Grant for planning expenses. Once the service was planned, GPTMA requested proposals for service and awarded the contract to a local limousine company. (Staff report that, because of proximity to Atlantic City, many private carriers in the area have excess capacity.) The local public transit operator, New Jersey Transit did not bid on the service because smaller, non-diesel vehicles were specified and because union requirements kept its operating costs higher.

The current service has been operating successfully since October of 1990, with an average daily ridership of 75. The shuttle meets trains during morning and evening peak periods (7-9:30 AM, 4-6:30 PM); the employee pays nothing while each business pays $104,000/year in operational expenses plus 10% administrative fees (GPTMA member firms pay 8%). GPTMA is responsible for scheduling and coordinating buses with train service (which changes twice a year) and for providing ridership and marketing information.

GPTMA staff attribute the success of the shuttle to several factors: the long history of shuttle service by Merrill Lynch before the coordinated service was begun, the willingness of employers to pay all associated costs in order to keep high level white collar and executive employees, and the developer's use of the service as a marketing tool in attracting other employers to the area[78].

Another shuttle service in a suburban center close to the Princeton Forrestal Center has also been successful. The ***Route 1 "Carnegie" corridor in Mercer County*** is an employment concentration located near but not at a commuter rail station along a hi-speed line serving New York, Newark, and Philadelphia. The area has both residential and campus style residential office parks, which are part of the rapid office growth in Princeton; it is located 1.4 miles from the Princeton Junction commuter rail station.

The area's developer began a shuttle service in 1988, the Carnegie Haul, to enhance the attractiveness of the Carnegie Center in West Windsor Township; the developer originally paid all of the costs and the service was free to employers.

The shuttle currently runs from 6 to 10 AM and from 3 to 8 PM on a 25 minute headway, meeting all outbound trains. Employees ride free but local residents pay. A clustered campus style office park, the Center consists of 20 buildings with an average of six bus stops per run with no more than 1/5 mile between stops. The Carnegie Center also includes 550 medium density residential units which generate traditional suburban-to center city commuter rail ridership to New York and Philadelphia; residential ridership accounts for nearly 60% of the total daily ridership on the Carnegie Haul. The

residential ridership has a 6:30 - 7:30 peak while the reverse commute feeder has a 7:45 - 8:45 peak; the divergence allows the same bus to service both residential and office locations.

A 1991 study by Marchwinski and Fittante[79] found that about one fifth of the Carnegie Haul riders came from New York City, another one-fifth from Newark, a little over 7% from Philadelphia, and an equal number from Princeton; in total roughly 75% of riders were reverse commuters travelling an average of 28.5 miles. When asked how they would make the trip if the shuttle were discontinued, almost 40% said they would come to work in a car (as a driver or passenger) and another 19% said they would take a train or taxi. No one said that they would not make the trip without the shuttle service.

Another shuttle service was organized in the Middletown/Homdel area of Monmouth County, New Jersey to serve four three separate AT & T facilities located in a rural suburban area, the furthest of which is 7.5 miles from the North Jersey Coast Line, a 66.7 mile rail route with direct service to New York City. The ***AT & T shuttle*** connects to the Middletown rail station, approximately 40 miles from New York City. However, Marchwinski and Fittante found that over 80% of the AT &T shuttle came from further south of the work site and not from New York; the average trip was 14.4 miles. When asked what mode they would use if the shuttle were discontinued 10% said that they would no longer make the trip while over 40% said that they would drive.

In a 1989 report for the National League of Cities, Mark Alan Hughes noted the existence of two additional TMA's that were then providing some kind of reverse commute service: in Boston the Route 128 TMA group picked up employees at the ends of Boston T-lines and transported them to Wellesley Office Park and Cummings Office Park. In Newark a TMA provided Meadowlinks Ride Sharing, a transportation service from Newark to the Meadowlands where there are employment opportunities for low skilled workers[80]. He also noted the plans of several TMAs in De Kalb and Fulton Counties (outside Atlanta) to provide comparable services but we have been unable to locate them.

Hughes also noted that other individual suburban employers were providing service from the inner city to their suburban employment concentrations: in Birmingham Wendy's fastfood restaurant chain has initiated a system of driving workers to suburban locations in a company car. BP America, a large suburban employer in Cleveland announced its willingness to subsidize private groups to set up reverse commute services. A private seasonal employer in Kansas City sends its own private buses to the inner city to pick up workers during its busy months. Hughes also reported on the difficulties faced by the Burger Kind franchises in Rochester which began reverse commute services to suburban operations from the inner city; within a year lack of interest by inner city workers and on-site conflicts ended the service[81].

In summary, the services described here are generally different from those described in

previous sections in two ways: first, they are feeder services to line haul facilities and thus require a transfer while the services described above were all fairly direct city to suburb transport with no transfer, and second, in spite of the direct service provided by the first set of services, the second were remarkably more successful.

What characterizes most of the successes analyzed here from the more problematic projects described in previous sections is a) the willingness of employers to subsidize substantial transportation costs, b) the provision of a fairly high quality service, and c) indirectly, the skill level of employees. That is, high skill individuals had choices, both of other jobs and other transportation options and had to be treated well by their employers or they would seek alternative employment.

With the exception of the few Burger King and seasonal examples described by Hughes, these operations contrast markedly with the way employers viewed public housing residents or inner city workers--in general, employers were not willing to cover much or any of their transportation costs, they had to be persuaded to hire the employees in the first place (sometimes only doing so when the worker was additionally subsidized by tax cuts or training programs), and the employees themselves had few alternative choices of either jobs or transportation.

PUBLIC NON-TRANSIT AGENCIES

This section provides three examples of agencies involved in encouraging or operating transportation services to inner city residents commuting to suburban jobs; the ***City of Hartford Employment Transportation Services***, the ***Regional Employment Program (REP)***, (District of Columbia), and ***Wisconsin Department of Transportation JOB-RIDE Program***. The first two are services provided by agencies of large city governments and the third is a program funded by a state DOT and Energy Bureau but limited to one large city. In many ways their experiences are remarkably similar to those of the tenant management associations and social service agencies described above.

Probably one of the oldest programs is a set of projects originally implemented in Hartford Connecticut as the result of a 1977 law suit which the City brought against the State; in an out of court settlement, the Connecticut Department of Transportation (ConnDOT) agreed that its fixed route mass transit routes were inequitable because they provided abundant service to the city from the suburbs but minimal reverse commute services.

ConnDot itself began the provision of reverse commute services from the inner city to large suburban employment centers and industrial parks. At the same time, ConnDOT funded the ***City of Hartford*** to begin paratransit services for job interviews and training and employment programs. The City established the ***Employment Transportation Services***, an agency responsible for planning these services; ETS contracted for shared-ride taxis to take inner city residents to job interviews, physical exams, and other social

services and for temporary vanpools as a transition to fixed route subsidized ride sharing.

Over the years ETS has initiated transportation services to fill a variety of reverse commute gaps--summer employment, after-work training at Bradley airport, etc. Project staff believe that Hartford is one of the first cities with a strategic approach to the issue of unemployment, recognizing that transportation is only part of the overall problem. For example, social agencies have been encouraged to meet regularly in a program of Collective Resource Management to assess how welfare recipients could become self-sufficient, including linking job training, day care, and GED preparation to transportation (although day care has recently been eliminated due to budget cuts).

ETS continues to provide both initial job search and transitional transportation; service can be initiated by either a non-profit employment agency or an employer and will be provided within a 25 mile radius of the City in areas in which neither Connecticut Transit or the Greater Hartford Transit District provide service. Individuals are given free rides to suburban job interviews or training; once employed (or accepted into a long term training program) a newly employed worker may be provided with vanpool service for up to six months--provided there are at least four riders going to the same site.

(ETS may opt to provide service for less than four passengers but only for six weeks; the required 4 person ridership must then be made up of either those already employed at the site or additional new hires from the inner city). Once service has begun, ETS works with the employer and the employment agency to arrange permanent transportation services. In 1989-90, ETS was providing vanpool service to 11 suburban employers.

In 1989 ETS made 24,000 one way trips, providing service to almost 900 people. Many of the riders had been unemployed for long periods, one third having been without a job for over a year. Of those provided transportation services, almost 90% are racial minorities and slightly over one half are women. ETS also offers car-pool matching services for inner city residents and provides a van purchasing and leasing programs which several employers have utilized. Currently ETS has six separate programs all provided under a private contract with The Connecticut Company. The private contractor provides drivers, operations staff, and vehicle storage while City staff are responsible for administration, project development and supervision, and performance monitoring.

Under Hartford's BREAC program (Barriers Removed Employment Assistance Collaborative), implemented in 1988, the City targeted AFDC mothers who had never been salaried and who were living in public housing. The goal was to identify the package of salary and benefits that would be more attractive than public assistance as well as the support services (including transportation and childcare) needed to prepare

clients for and retain them in paid employment. These services were then provided to selected jobs.

Initially the BREAC program was very successful; the first 25 participants experienced an 88% retention rate after six months of employment. However, the recent recession has caused most to lose their jobs or to be offered a salary and benefit package effectively worth less than collecting welfare. (In 1989, Tom Phillips,ETS Director told a CTR reporter that a mother of one child would have to earn $7 per hour, plus full medical benefits for herself and her child, to just match her AFDC benefits were she to be unemployed[82]).

Tom Phillips told us that these programs have been successful because agencies have learned the importance of self-sufficiency in job retention. They recognize that a large investment must be made initially in daycare, counseling, financial guidance, and other personal problem solving skills; transportation can only be one element in this package. He feels that, even after recent lay-offs, Hartford has experienced a long term change in attitudes among both workers and employers--stereotypes have been removed on both sides. He is optimistic about the program once business picks up[83].

In 1985 the District of Columbia initiated the ***Regional Employment Program (REP)***, a joint effort of the District's Department of Employment Services (DOES) and suburban jurisdictions designed to assist in matching suburban employers who are having difficulties in recruiting employees *with* unemployed DC residents. REP provided a computerized Central Job Bank and preliminary screening of applicants; in addition, the program provided federal Targeted Jobs Tax Credit (TJTC) assistance to employers for those new employees who qualified. The REP also maintained a transportation information center and distributed limited transportation subsidies to job-seeking applicants.

The Program also established a van leasing program by participating in agreements with suburban employers in which it subsidized up to half the cost of leasing vans to transport DC residents to their employment locations. Between 1986 and 1991 the Program served over 3,000 people placing many in jobs that paid between $6-7. Unfortunately the Program was phased out in November of 1991 because of lack of money; currently no one at the Department of Employment Services has responsibility for reverse commute services[84].

The State of ***Wisconsin Department of Transportation*** developed a ***JOB-RIDE Program*** to subsidize access to suburban jobs for inner city and minority residents in an attempt to reduce welfare dependency and to alleviate suburban employee shortages in Milwaukee. JOB-RIDE attempts to bring together business and private organizations serving the unemployed to produce innovative transportation solutions linking urban job seekers to suburban jobs by initially funding private, non-profit organizations which provide job development, training, and placement services to obtain/provide transportation

alternatives where conventional public transit would be inefficient.

In 1989 total program costs were $259,00 with a mixture of revenue sources (including over 20% from grantee match and a $90,000 grant from the State's Department of Health and Social Services). In 1990 and 1991 the primary source of financing was the stripper well oil overcharge funds which allowed the program to grow to $440,000. In the first two years of operation (1/89 - 12/90) JOB-RIDE filled 1,440 permanent and 598 temporary jobs.

A number of changes were made in the program starting in 1990: 1) the program was limited to permanent or probationary jobs, 2) businesses and local government agencies were also allowed to participate as transportation providers, 3) the one-way fare was limited to $2 per trip and, if a fare were charged, employers were required to pay 50% of that fare, and jobs were required to pay a minimum of $4 per hour. During 1990 five private, nonprofit organizations received funding to provide reverse commute services; most operated 1 or two vans although the Milwaukee Careers Cooperative operated up to 6 vans.

In 1990 (the last year for which comprehensive data were made available) the Wisconsin Energy Bureau reported that the program served 2,021 people, providing a total of 51,870 one-way trips. The program placed 733 people in full time permanent jobs with an average hourly wage of $5.38. The cost per one-way passenger trip was $8.46, the average productivity was 3.06 passengers per hour, and the total cost for each permanent job placement was $590[85]. The report noted that while placements had increased over 1989 totals (685), the 1990 target had not been reached and that costs per placement were substantially higher ($590 vs. $371 in 1989) and productivity lower than in previous years.

JOB-RIDE services are provided primarily with vans carrying from 3 - 8 riders per one way trip. Most participants lease vehicles but the State apparently allows grantees the option of buying vehicles with the state keeping the lien*.

Although the Program has generally been hailed as a success, the legislatively mandated changes seen in 1990 hint at some problems: lack of employer support, the inexperience of some of the non-profits in transportation provision, and the tendency to subsidize transportation for temporary or very low paying jobs. In its report on the program in 1990 the Wisconsin Energy Bureau listed other problems reported by the grantees themselves:

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* The Wisconsin Department of Energy 1990 final report on this program reports that, because the cost of leasing vans was so high, grantees were allowed to purchase vehicles. This was denied by an official of the Wisconsin Bureau of Transit but affirmed by one of the grantees.

1) low wage levels and the need for health benefits discourage may welfare recipients from accepting or continuing in a job, (even if some benefits continue),

2) the need for childcare (and having both the money to pay for it and the time to find it) can discourage welfare recipients,

3) inner city residents are not able to compete for the better suburban service jobs, in part because the companies with the best pay have the strictest job performance standards (including mandatory drug testing which has proved to be a problem for their riders),

4) appropriate available jobs require substantial commutes which increases provider costs while lowering employee interest, and,

5) employers are not very interested in participating (they must pay 50% of any fare charged) and would require additional incentives to participate (which the grantees recommended)[86].

Interestingly several grantees listed regular riders as a problem since this program's success criterion involved placing people in jobs, not providing long term transportation services. In addition, several grantees faced problems similar to those experienced by Accel in Chicago; to gain employer support the operator had to agree to provide daily transportation services to each employer even if the number of inner-city workers at that firm fell below the level that made such service cost-effective.

The Bureau of Energy also made some evaluative comments of its own, noting that program sponsors may have to lower their expectations regarding job placements and cost-effectiveness given these realities and the downturn in the economy. Moreover the Bureau noted that a summer intern found that record keeping by grantees was fair at best and that few efforts were made to follow the progress of people placed in jobs. Thus, although grantees suggested that the benefits to society of long term employment successes are considerable in both reduced welfare payments and increased tax payments, there are no data whatsoever to show that the placements were former welfare recipients or to indicate how long any of them stayed in the job. The most telling point made by all our sources: there is no guaranteed funding for the program after the oil surcharge money disappears in 1993 and the program may be dropped.

SYNTHESIZING THE EXPERIENCES OF NOT-FOR-PROFIT AND PUBLIC NON-TRANSIT AGENCIES

This study defined four categories of reverse commute provider: *the private for profit, the private not-for-profit, the public non-transit agency,* and *the transit operator.* This report has already described representative examples of each of the first three types of

providers. Because the second and third share an overriding concern with two major non-transportation objectives: **using transportation to increase employment**, and **using transportation to empower community based groups**, and because these objectives are so different from those motivating the last group of reverse commute provider, it is useful at this time to compare and synthesize their common experiences.

It is important to reiterate the fact that reverse commute projects can and did have different goals and that success must be measured in terms of the goals the projects had for themselves. Clearly most of the projects described above aimed at increasing employment among inner city residents by providing reverse commute services temporarily or permanently. In this goal most were not successful. In addition, some of the projects also aimed at developing permanent transportation links to suburban employment centers for inner city workers; even fewer had success at this goal.

The Source of Common Problems

It is clear that many of the projects operated by not-for-profits or public agencies were less than overwhelmingly successful in the goals that they set for themselves. The problem for those that sought to address high joblessness seems clear in retrospect (and when examining historical reverse commute experiments): **inner city unemployment is neither caused by the lack of transportation services nor cured by the provision of transportation services.** Transportation services may be part of the solution to the unemployment problem but the experiences just described suggest that it may, in fact, be only a minor or temporary part of a useful program.

Several common patterns emerge in the less than successful projects;

- Project organizers/sponsors made unrealistic assumptions about:
  - the availability of jobs matched to resident/worker skills,
  - the willingness of firms to hire unskilled workers new to the work force, and,
  - the willingness of employers to subsidize the transportation of entry-level employees.

- Project organizers/sponsors made unrealistic assumptions about:
  - the willingness of residents to travel long distances to accept entry-level wages,
  - the ability of residents to take jobs far from home without continuing additional support or programs (ie childcare), and,

- the ability of low skilled or untrained resident workers to compete successfully for unsubsidized jobs.

›Project funders made unrealistic assumptions about:

- the difficulty of providing reliable and efficient transportation services in the face of high and continuous turn-over rates, and,

- the ability of an inexperienced and untrained staff--no matter how enthusiastic or motivated--to successfully develop, market, and operate transportation services while also running an employment agency.

Other major concerns surfaced indirectly. Several project staff spoke discouragingly of the ***unwillingness of public housing residents to work at all*** when project expectations of work-seeking behavior had been so high. But those expectations were completely out of line with some stark economic realities; to gain low paid or entry level employment, most inner city residents would lose medical and other social benefits and face rent increases. They would also have to find and pay for childcare. In short, their total after-tax revenue might be significantly less employed than unemployed.

Other project personnel and researchers spoke of their surprise at the ***unwillingness of suburban employers to hire minority group members*** and the prejudice and stereotyping which they found among those employers. It is easy, and not very fair at a distance, to label these views as naive, but it is worth noting that these are exactly the same discrimination problems which the reverse commute programs of the 1960's and 1970's experienced.

Some projects which focused on raising employment rates also assumed that permanent transportation services would be required while others initially or ultimately came to seen transportation as a transitional service. For the agencies which assumed the need for a continuing service, a major source of trouble was the ***difficulty in maintaining a consistent ridership base.*** The trouble was two pronged: residents who were successful at getting and keeping a job often bought a car, and residents who do not get or maintain a job dropped out. While several projects glossed over their drop-out rates, turn-over rates were very high and, when adequate data existed, appeared to be substantially above averages for all low skilled workers (in spite of unsupported claims to the contrary).

So agencies spent a great deal of time trying to both fill their vehicles with fare paying customers and find jobs for the unemployed. Not surprising several systems ended up advertising for already employed workers who wanted rides, sometimes taking them right off the transit system.

In addition even those agencies which did not want to offer continuing transport had trouble in providing demand responsive services daily for a variety of riders going to a

variety of jobs. Several programs overcame these problems by only dealing with specific employers or with employment services dealing with specific employers at certain times. ASI in Philadelphia and Accel in Chicago found it easier to supply a steady stream of employable workers than to provide a flexible responsive transportation service. Other providers (like Bromley Heath) were far better at operating contract charter-type service where separate agencies provided and paid for employee recruitment and training and supplied all riders, already guaranteed employment at a few sites. (The next section discusses the more operational issues raised by these services.)

Two additional concerns raised by staff or other researchers are worth comment. First many staff noted that ***their efforts were neutralized or rendered unsuccessful by the massive downturn in the economy.*** Unfortunately this assertion begs the question by ignoring key issues: if lack of transportation is the reason why inner city people can't get entry-level suburban jobs than the economy should effect everyone equally. That is, if transporting people to job openings doesn't get many inner city residents long term employment while others still have jobs, then we have to question why inner city residents feel the downturn so much and so much earlier than suburban workers.

A second additional problem mentioned by some staff and researchers is the ***overwhelming dependance our society has on the car***; several researchers have commented that if cars paid the true cost they impose on society (ie congestion, pollution, energy loss, valuable land lost to streets and parking, etc) we would have more support for mass transit and ultimately for denser land use patterns. Somehow this is seen as helping the inner city poor.

This comment again raises the question of whether transportation is the real problem facing inner city residents; the lack of support for mass transit is a direct function of the suburbanization of society and the inability of conventional transit to compete with cars in low density land patterns[87] [88] [89]. The more acute problems seem to be a) the inability of central cities to maintain high density traditional cores because of the shift of jobs to the suburbs and b) the inability of inner city residents to move to the suburbs.

However, even if lack of support for mass transit is treated as a transportation barrier for inner city workers, it does not follow that more support for mass transit will translate into meaningful aid for inner city residents. It is not clear that additional suburban transit or subsidized vanpools would provide more than marginal assistance to the inner city worker who cannot or will not move to the suburbs (even assuming a sort of trickle down transit theory).

Moreover these comments ignore the time travel constraint seen by so many of the projects described above; using transit within our current land use patterns imposes very significant time costs[90] [91]. Even if subsidized, the reverse commute would still be too expensive in time for many inner city workers (who might also incur additional monetary costs for childcare, etc.).

Moreover it seems unrealistic to expect both a massive and speedy restructuring of land use patterns which have been at least 80 years in the making; inner city residents waiting for the return of 1912 Chicago or Boston or even Los Angeles in order to get a job will be waiting a long time.

Last, this kind of thinking ignores how important the private car currently is for the inner city resident trying to keep suburban employment; increasing the price of driving and/or parking (in order to discourage the use of the car) will clearly impact low income people long before it hits the middle class--and long before alternative transit services can be made available to fill the gap.

Overall these experiences strongly suggest that projects providing transportation alone will not increase inner city employment unless they also 1) provide intensive training and skills enhancement, 2) offer a range of continuing support services, 3) ensure wages that more than compensate for both the loss of benefits and increased rent and employment expenses, 4) work with employers to overcome prejudice and stereotyping, 5) guarantee the worker meaningful on-the-job training and a real career ladder, and 6) keep travel times and distances reasonable (and in line with wage rates). There is some evidence, however, that with these resources inner city residents don't need any transportation services at all to secure employment--although they may use them at least temporarily if provided.

The importance of so many other societal variables--lack of education and training, racism, the growing scarcity of decently paid production and industrial jobs, the incredible costs to the welfare recipient of taking suburban work, etc--had only been marginally recognized by project staff before services were initiated. The primary importance of these crucial elements was minimized in the rush to get a transportation service started; while it is hard to fault local project staff, some funding agencies should have had a clearer idea of the enormity of the problem before raising so many hopes.

Certainly a number of recent studies and analysts have recognized that transportation must be part of a package of services for inner city workers but they 1) have not made these observations very forcefully and 2) have at the same time pushed for the development of reverse commute services as a cure for unemployment--sending at best a mixed message.

The Lessons of the Successful Projects

Ironically the single most successful set of projects were those with very different goals; that is, the successful projects started with employed people and provided them transportation, and not the other way around. The clear successes--again in the terms which they set for themselves--were those systems in and around Princeton New Jersey where large employers were willing to pay substantial sums to transport high skilled high income employees from a train station to the work site. Note that there is no indication

that anyone gained a job from these services or that any jobs that would have been lost in the absence of service would not have been easily replaced by comparable ones closer to the central city locations of the commuters involved.

For all other reverse commute projects, those that defined success in terms of employment gained, two substantive factors seem associated with success, factors that were the obverse of the failures described above:

- **transportation is provided as part of a package of services**, which includes rider screening, interviewing, and skills training, the development of on-going relationships with major employers, and the long term provision of multiple support services like childcare, and,

- **transportation is provided on a temporary or transitional basis**--that is, the measure against which success is measured is *people placed in jobs*, (and less often than it should be considered, *retained in jobs*) and not total or continued ridership.

The organizational structure within which these services was provided varies and also seems to affect success.

- **transportation provision is directly and integrally linked but to *other agencies* providing the full range of employment agency services**--screening, training, interviewing skills, etc.

That is, the most successful projects were those which did not themselves provide all these services but had meaningful links to agencies which did. The least successful were those projects which had to "do it all" juggling a number of tasks: finding potential employees and employers, getting the potential worker to an employable condition, making the initial connection between employers and employees, maintaining employer contact, convincing the employer to pay part of the cost of transporting workers, and--then, finally--providing transportation to anyone who actually got hired.

It is also clear that many of the more successful projects did provide service in or near areas where conventional *transit was already operating*, like ASI, ACCEL, and Bromley-Heath as well as Washington's Community Life Services. What these projects provided was more direct and generally far cheaper transportation service than that provided by existing traditional transit providers.

An important note; few projects keep data sufficiently detailed to really determine if they were indeed successful. We spoke with many project staff who believed or maintained that their projects were successful but who were unable to provide any data to substantiate their claims--whether success was measured by job placements or the number of riders or high cost-recovery ratios (or some combination). Few data were

available on actual turn-over rates. Many projects were either unable or unwilling to provide data beyond 1989 or 1990 although they were still operating at the end of 1991. Several projects claimed to be financially successful--which turned out to mean only that they weren't spending more than the subsidies given them, not that they were "making it on their own."

Certainly all of the projects described above had some successful elements. Even among those with the most discouraging results several factors helped:

- having strong leadership and an entrepreneurial spirit
- creating community and large employer support
- establishing a stable on-going organization with community and agency visibility.

The successful projects also had other elements in common which are a little more troubling considering the recent policy emphasis on the role of private entrepreneurs and the self-empowerment of community actors. First, the most successful projects were those where workers and/or those employing them were subsidized by multiple programs, including employment tax credits, JPTA training and employment programs, and local employment subsidies. This suggests again how complex the unemployment problem is since simply providing transportation was not enough to induce many employers to hire inner city workers--**unless those workers were given special training at little or no employer cost and their wages were already substantially discounted in some way.**

Second, the most successful projects were those which had multiple sources of subsidy and which were not forced to rely simply on rider fares or direct employer subsidization of employee fares or contract revenues. For example, the NCNE projects which have received the most attention are those which have three to five major public and private sources of operating assistance as well as vehicle grants. ASI in Philadelphia contracts with a social service provider which gets most of its vehicles through the FTA 16(b)2 program; Accel in Chicago is funded by the Regional Transit Authority, a private foundation, and an FTA grant. In short they were not really acting like private businesses and the extent of community self-empowerment that realistically results from continual subsidies is unclear.

Certainly some of the projects described became potentially viable once they entered into contract relationships with either employers or public agencies--from the Greater Princeton TMA to Bromley Heath. Contracting can be differentiated from subsidies--since many private transportation providers, including most taxis in the U.S.[92], stay in business only because they have long term contracts with public or private agencies. Therefore projects which can meet their costs by providing genuine contract services

(which are not disguised subsidies) can be considered successful in our view (although there are differing opinions).

However, it is important to note that some of the projects engaged in contracting were not playing on a level playing field--since many of their start up and vehicle expenses had been subsidized. To be successful entrepreneurs, or to really empower a community over the long run, these projects must maintain a competitive position. This generally means providing an array of services in order not to be too dependant on any one contract. It also implies having the ability to move beyond social service contracting since these kind of funds are in such short supply and may be easily cut.

Above all, examining the more successful projects once again calls into serious question the easy assumptions about the jobs-transportation link; clearly creating employment opportunities takes much more than providing transportation. And running a profitable transportation service takes more than grants which pay start up costs.

Underlying Operational and Service Assumptions

The previous section directly or indirectly focused on experiences in linking inner city people to jobs using transportation. This section focuses on the underlying operational rationale of many of these projects and suggests the problems which reverse commute providers have in developing and maintaining a competitive position--independent of their goals about increasing inner city employment.

Many of these projects tacitly made three major and strongly interrelated operational assumptions which proved to be untrue: 1) that a transportation system could be entirely or largely self-supporting from providing work trips, 2) that private provision of reverse commute work trip transportation would be so much cheaper than public provision that reasonable fares could be charged, and, 3) that there was a need for a long-term transportation service.

First, many systems concentrated all their energy on developing work trip routes either ignoring the need to also provide mid-day trip-making or assuming that such non-work trips would be easy to capture once work trip schedules were established. In fact, the nature of mid-day travel made it extremely difficult to serve because a) it was for neighborhood based shopping and recreation for which there was generally satisfactory and cheap public transit, b) medical and other kinds of mid-travel not well served by transit were not routinized and required real time dispatching and scheduling expertise, and c) the window of time vehicles were actually available for non-work travel was very limited, given the lengthy suburban work trips.

On the other hand, even if a project were able to offer substantial mid-day service, productivity would not be high (few systems who kept records achieved more than 3 passengers per hour) and the fares charged would have to be fairly low. It is

conceivable that the marginal operating costs of mid-service (driver time, gas, oil, wear and tear) could be higher than the revenues.

Second, few providers seriously analyzed the cost parameters involved in providing work trip services with paid drivers. This fact was made painfully clear to the systems, like Project Libertad or Community Life Services in Washington, where the driver was initially either a volunteer or someone paid from another budget, when the system became so large that paid drivers were needed. The reality is that the costs of running services are fairly high, and even higher if all expenses are really counted (including, for example, vehicle depreciation or capital recovery costs for donated vehicles). Apportioning these costs to a limited ridership necessarily creates astronomical fares.

Table Two attempts to show the generic situation facing systems providing only work trips if they attempt to recover all costs from fares (even if those fares are subsidized by employers or other agencies). If the full costs of service (driver plus vehicle depreciation plus operating expenses plus insurance) were $100 a day (a very reasonable figure) a large 14 passenger van would have to operate at 100% occupancy to generate a fare of $7! If vehicle expenses were half again as high, the full cost-recovery fare would be over $10! Only if an operator could provide two round trips per day and those trips were completely full would fares fall below $4.00 a day per rider. Note that few of the projects had average ridership (ie productivity) any where near these ranges.

The kind of analyses shown in Table Two were only rarely undertaken by project staff. In our discussions it seemed clear that many did not originally understand that they were often dealing with daily costs in excess of $100. Many providers talked of per vehicle hour expenses in the $20 -30 range, without quite realizing that such a figure was only realistic if applied over an 8 hour plus day. (That is, it is not generally possible to buy or produce any given hour of service for that figure since many expenses can't be purchased in small discrete units--it isn't possible to buy two hours per day of insurance even if a project can hire a driver for only two hours per day.) To a large extent, most systems should have figured their costs in the way shown on Table Two and not on an hourly basis.

In addition, many operators did not give a value to volunteer time or staff salaried on other accounts or donated parking or office space; more seriously they didn't include any way to pay for new vehicles once donated ones were gone*. In computing costs in

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* Government accounting regulations forbid grantees from depreciating vehicles received from federal grants because a) the grantee did not pay for the vehicle and therefore should not seek reimbursement for the yearly loss in vehicle value, and b) depreciation is a private sector concept where the costs of doing business are subtracted from profit (see Rosenbloom, Cost-Analysis for Social Service Agency Transportation Providers)--in general federal grantees are not profit making entities. Obviously, many of these projects did not receive their vehicles through federal grants (and so could either depreciate them or establish a capital recovery account) and they are attempting to act like profit making entrepreneurs whose prices/fares should include all costs of doing business.

Daily Roundtrip Fare or Subsidy Required for Reverse Commute Entrepreneurial Service Under Different Cost and Ridership Assumptions

	Cost Per Day	
One-Vehicle Trip Daily (2-ways)	**$100/service day**	**$150/service day**
50% occupancy (7 people RT)	$14.29	$21.43
79% occupancy (11 people RT)	$9.09	$13.64
100% occupancy (14 people RT)	$7.14	$10.71
Two-Vehicle Trips Daily (2-ways)		
50% occupancy (14 people RT)	$7.14	$10.71
100% occupancy (28 people RT)	$3.57	$ 5.36

the $20 - 30 range many providers were really calculating the subsidized and not the full costs that would been incurred by a private profit-making entrepreneur. Thus while many of the systems sought to be self-sufficient their accounting methods actually worked against that goal.

Figure I is a graphic concept of the justification for subsidy which underlay most of the reverse commute projects analyzed. Most of the projects assumed:

- that private entrepreneurs would require fewer subsidies than public operators to provide the very same reverse commute trip,

- that employers could be persuaded to contribute a substantial percentage of the cost, a share that would decrease as rider income increased, and,

- that as the income of riders increased the amount of public subsidy would be decreased by the growing ability of the rider to pay higher fares.

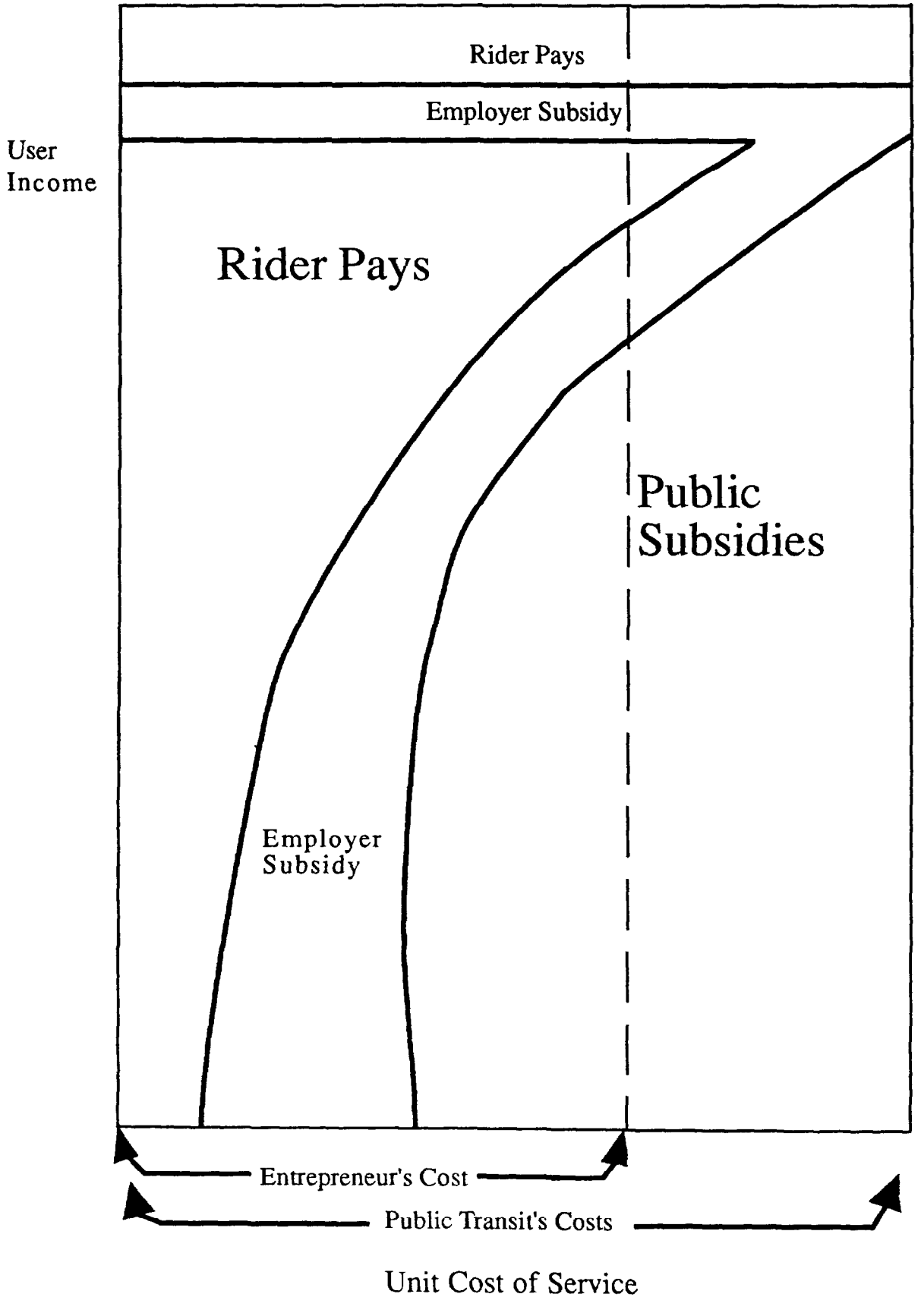
In actual operation many of these assumptions either did not hold or the thresholds could not be reached within the cost parameters shown in Table One. First, while it is extremely likely that private entrepreneurs can provide transportation services for subsidies far below those required by public transit operators, the projects analyzed here provide little direct evidence of the cost advantages offered by the private sector since most were highly subsidized in one way or another.

Moreover, the assumptions about employer behavior were often wrong. Ironically employers appeared to be more willing to subsidize travel as worker income went up--as in the three Princeton area projects. Therefore Figure I shows that at certain fairly high incomes the rider paid nothing while the employer paid all! In addition many projects were unable to get any employer subsidy at all--which left them with the choice of charging $5 -10 per day in fares to minimum wage workers (and those fares arrived at by undercounting actual expenses) or not providing services at all. Many projects were only able to achieve employer cost-sharing for new or recently hired employees--that is the employer cost sharing was viewed as a time-limited subsidy.

In addition, the actual cost of an unsubsidized fare is probably fairly high--meaning that if the worker could easily pay the full fare in question s/he also could--and probably would--buy a car.

A third major assumption made by some of the projects was that there was a need for a long-term transportation service. However because of the very high rates of turn-over, and the fact that the few successful applicants got cars, many agencies complained of the lack of continuing riders. This made it necessary to do real time re-routing weekly (and even daily) and even to encourage local residents already employed at the site to ride. (Ironically others, like the Milwaukee providers, complained about having too many

Understanding Dynamics of Subsidizing Reverse Commute



continuing riders, taking up space needed for new hires).

In sum, the cost assumptions underlying many of the non-transit agency projects analyzed above were weak at best.

PUBLIC TRANSIT OPERATORS

Public transit operators are providing a range of reverse commute services generally in significantly different ways than the first three major kinds of reverse commute providers. First, an increasing number of transit operators have "stumbled onto" growing reverse commute patterns, suddenly finding that the two way flows on some lines have started to even out (or are even disproportionately reverse commute). Sometimes, but not always, they have responded by changing schedules and stops to accommodate the reverse commuter.

Second, some transit agencies have begun to provide feeder or shuttle services from suburban rail facilities to nearby employment concentrations; sometimes the shuttle service is provided by the rail operator and sometimes by a suburban operator. Some transit agencies have begun to work with employers to develop special transit routes or vanpools for suburban employment concentrations.

And third, at least one transit agency, the Baltimore MTA is acting as a broker, providing funding for a variety of local private operators to serve small reverse commute niches (acting similar to many of the projects described above but with the difference that the service is provided under contract to the transit agency).

An analysis of the role of the transit operator in providing reverse commute transportation raises several disturbing questions. As suggested previously, it is not clear that transit operators are providing adequate service to employment concentrations within the central city, let alone to the growing (and far distant) suburban concentrations. Moreover, the way in which transit operators have responded to reverse commuters are problematic; the responses tend to meet the needs of the transit system far better than they meet the need of the rider.

For example, providing feeder service from a suburban rail station to a suburban employment concentration may be a helpful option for inner city residents but providing direct bus service from the inner city to the same concentration would be far better--it would cost the worker less in time, inconvenience, and probably expense. It wouldn't however increase rail ridership--the major goal of most transit systems with rail operations.

A larger question is also raised by the transit agency practice of providing new services only if the marginal (or average) costs will be covered by fares or employer subsidy or both. Obviously few transit systems in the United States cover more than 30-40% of

their operating expenses from fares; any system is likely to have suburban routes falling considerably below that level. Ironically the routes which tend to show the highest revenue to cost ratio are those in the inner city! In short, transit operators expecting cost recovery from new routes are expecting more from reverse commuters than they are of current riders and generally more from low income inner city workers than from suburban middle income riders.

The sections that follow describe several examples of the four ways in which transit operators are directly or indirectly involved in reverse commute services.

Discovering and Accommodating New Niches

Many of the earlier reverse commute projects were aimed at encouraging transit operators to see something right under their noses for the first time--a revenue producing way to use excess capacity on the outbound trip. But Crain's 1970 assertion that transit operators are not very interested in addressing reverse commute needs has proved remarkably durable.

This sub-section describes two transit services which have become reverse commute providers by fate or accident and two which have made some conscious efforts to meet the needs of that market: the ***Metropolitan Suburban Bus Authority (MSBA)*** (Nassau County, NY), ***CalTrain***, (between San Jose and San Francisco), ***NJ Transit*** and, ***Tucson***.

The ***Metropolitan Suburban Bus Authority (MSBA)*** serving Nassau County outside New York City (and providing commuter service to Queens, Long Island, and Suffolk County) is a subsidiary of the New York MTA operated by Nassau County. The system was originally established to provide feeder services to the subways going to Queens, but during the 1980's staff noticed that these same routes were filling up in the reverse direction as light industrial and service jobs developed on Long Island. Staff explain that reverse commute ridership has not been actively developed but has simply increased with new Nassau County employment opportunities; by 1988 the number of morning peak passengers travelling east (away from the subway connection to Queens) had exceeded the CBD-bound number.

Currently reverse commute passengers are estimated to comprise 60% of all MSBA ridership[93]. The MBSA strategic business plan noted,

> [The] reverse commutation pattern has grown steadily...consequently buses no longer "deadhead" back from Queens to the depots. Buses carry capacity loads to points in Nassau and remain in peak service for longer intervals

Other than extending peak service slightly the MBSA has made little effort to streamline existing services for reverse commuters. However at the time we spoke staff were

considering a demonstration feeder service from one or more stations on the Long Island Railroad and the Route 110 (Long Island) employment centers to serve rail reverse commuters.

Caltrains and the Southern Pacific Company, with financial support from San Francisco, San Mateo, and Santa Clara Counties, operate ***CalTrain***, a 47 mile heavy rail line between San Jose and San Francisco. They operate 52 weekday and 46 (total) weekend trains. Like many operators CalTrain found that it had a growing number of reverse commuters; unlike many operators, CalTrain undertook a detailed study of reverse commute rider characteristics. The 1989 survey found significant differences between the traditional and reverse commuter: reverse commuters were younger, more likely to be male, not "quite so well off financially" and considerably less likely to have a car[94]. Reverse commuters starting in San Francisco were also more like to rate CalTrain as slower, more expensive, and less dependable than did traditional commuters[95].

NJ Transit, a statewide organization has provided a number of reverse commute services. They began reverse commute operations in the early 1980's when Hartz Mountain Industries asked them to provide service to its new shopping mall and office complex, ***Harmon Meadow***, which was located near the North Bergen Park-n-ride serving New York City. Reverse peak trips on the park-n-ride service were re-routed to serve Harmon Meadow, with Hartz paying the operating subsidy. The service continues today without any subsidy since fares cover the operating cost[96]. The following paragraphs describe a sample of the 13 reverse (or sometimes cross-) commute "prototype" projects which NJ Transit implemented prior to 1989.

In 1985 NJ Transit began a link between the inner city of Trenton and the ***US Highway One Development Corridor*** (Mercer and Middlesex counties) using two separate routes. Although marketing was extensive and headways frequent, ridership was relatively low (below 200 per day compared with routes linking Trenton with Route One shopping malls which carried 2,500 - 3,500 daily). In mid-1987 NJ Transit cut this service back to one route and increased headways. The service has continued in operation, slowly but steadily increasing in ridership; in 1988 ridership had climbed over 400--largely due to an increase in shoppers.

> Staff has not seen a significant increase in ridership to the office locations along the corridor, despite frequent marketing efforts made to attract this market...The relative failure to attract significant numbers of office commuters may be attributable to...continued dominance of the private auto, a variety of privately operated shuttle vehicles connecting US 1 locations with the Princeton Junction railroad station...the presence of free on-site parking for all employees located at these offices...[97]

In 1987 NJ Transit was asked to re-route an existing route (No. 1 in Newark) to stop at the ***River Terminal Development Corporation***; the transit system agreed to do so if the

River Terminal would pay approximately $9,000 a year in additional operating costs. After just a few months in operation the daily ridership (46) exceeded the break-even point (42) and the system continued the service without subsidy.

In the same year NJ Transit was asked by ***United Parcel Service*** in the Newark area to provide them with public transportation services; UPS had difficulty in recruiting semi-skilled workers for a 12 noon to 4:00 PM shift and felt that the absence of direct bus service was the cause. In fact UPS projected that between 45 and 75 people would use a direct bus service if the 29 route, which intersected virtually all lines in the greater Newark area, were extended to UPS. NJ Transit modified the service as requested, adding 4.9 hours to daily service, requiring an annual subsidy of almost $38,000 which UPS agreed to pay. Unfortunately, the service averaged only 3 riders per trip and UPS refused to continue to subsidize it after three months of operation--when NJ Transit discontinued service.

In 1988 NJ Transit began service to a regional mall, ***Bridgewater Commons***, from older Route 1 communities with potential service sector workers. By making minor adjustments in existing routes, the system was able to provide service at almost no cost. Unfortunately they got almost no riders either; after 7 months of operation ridership was about 25 people per day with about 40% probably being employees. In late 1989 ridership had grown to 50 people per day.

In analyzing all of their prototype non-traditional commute services, NJ Transit noted that the commitment of the employer and the total travel time facing the employee were significant success factors. They concluded that costs could often be kept low enough to maintain service if unused capacity was activated and route deviations requiring little additional operation time were used. Specific examples included the high level of service they were able to provide to New Jersey work locations drawing New York employees because they had so much excess capacity in the reverse direction (given the extensive NJ Transit service to New York). They were also able to cheaply provide service to an employer if his/her location was close to an existing route and the shift times matched existing bus schedules. In fact they calculated that any employer more than 5 miles from an existing bus service (or those with unusual shift times) required an extra driver for the new service.

Problems which lead to low ridership included the physical layout of most suburban office park developments which required substantial time for a bus to circumnavigate and which often dictated different pick-up and drop-off points, forcing riders to walk long distance to access their buildings.

NJT officials are actively involved with the Business-Transit Alliance which has used the information from the 13 prototypical projects to assist businesses in meeting their employee transportation needs. NJ Transit has a policy similar to SEPTA's described below; if an employer requests additional or different transit services, NJT calculates

the expected subsidy and asks the employer to subsidize the difference between the fare box and the costs of operation. The employer can guarantee service by buying monthly passed for employees.

When we asked project staff if they thought it fair for these employers to pay full costs when other systems users paid (on average) less than 70% of the cost of service, the reply was that "if they wanted transit service they should have located near existing transit facilities." Moreover the economic status of the potential user is not their concern when establishing routes.

In ***Tucson***, with a grant from DOT designed to promote alternatives to the private car, the city transit system, Sun Tran, began one reverse commute route and one suburban extension of an existing route to serve a large aerospace firm, a major mall and several resort hotels. Service was provided seven days per week, on half hour headways during morning peak periods and 15 minute headways during the PM peak. Although designed to accommodate workers the route did not provide express bus service; it took roughly 68 minutes to make an 11 mile trip.

While the extended route (the 105 Express) has exceeded its goals, it's ridership has turned out to be suburban residents riding to suburban destinations. Route 16, the genuine reverse commute route, did not do well at all; although ridership projections were in excess of 200 people daily the route actually had only 33 at the time it was canceled in the spring of 1992 (when the grant ran out). Staff attribute its failure to downturns in the economy, the need for shorter headways, and public perception that transit is not reliable; they also questioned whether transit and work schedules coincided and whether the trip was simply too long[98].

It is hard not to be struck by the fact that the City operated the service very much like "ordinary" routes, making no concession to the particular scheduling needs or time constraints facing inner city residents going to work. In fact, to access two of the largest resorts at the end of the route, inner city workers (who had already faced an hour long bus tour of the city) had to transfer to a hotel van at the bus stop to finish their worktrip commute.

The National League of Cities study reported in 1989 that six cities' transit operators were considering implementing, evaluating, or studying reverse commute services (Chicago's PACE, Cincinnati's Queen's Metro, the Denver RTD, Detroit's DOT, Louiseville's Transportation Authority, and the New York Port Authority). In 1991 we could find no explicit reverse commute services in these areas--although such services may, in fact, exist.

Feeder Services from Suburban Rail Stations

This section describes two different types of feeder services to regional rail stations

carrying workers out from the central city: ***Southeastern Pennsylvania Transportation Authority's "200-Series"*** (Philadelphia), and, ***Cobb Community Transit (CCT)*** (suburban Atlanta).

The best known system of suburban reverse commute feeder services is the series of six ***"200-Series" routes*** operated by the ***Southeastern Pennsylvania Transportation Authority*** (Philadelphia) or SEPTA. Hughes has chronicled the initiation of the SEPTA 200 series. In September of 1986 the developer of a group of suburban business campuses approached SEPTA and asked for a new bus service to link the employers located there to the nearest suburban rail station. SEPTA's original analysis showed that the route would only can carry 60% of the ridership needed to recover the cost of operations strictly through fares.

The developer and the major tenants agreed to subsidize the difference. The Route, 201, was heavily marketed by SEPTA and began service in March of 1988 but by June had 186 riders--more than enough to cover operating costs. By September the route was carrying 237 passengers and using the "profits" to subsidize the rail system itself[99].

As a result of the success of Route 201 SEPTA began planning more than a dozen 200 routes between suburban rail stations and employment areas. The 200 series routes are implemented in special ways[100]:

1) Bus and rail schedules are coordinated to "guarantee" connections.

   This requires the bus to arrive at the rail station five minutes before train departure and to depart the station about three minutes after train arrival.

   If trains are late, buses are held.

2) Special fares have been established.

   Holders of certain rail passengers ride free; other train users pay a 50c transfer fee.

3) The private sector is the primary source of funding for operating deficits.

   Fund raising and coordination is handled by TMA's, individual employers, or business park managers.

4) The 200 series schedules also include connecting regional rail information.

In general 200-series routes are only established when employers call and request them. SEPTA staff then develop a cost proposal for the requested service and require that

interested parties pay for that service on a quarterly basis; the cost structure guarantees that SEPTA will break even on incremental expenses. The average cost to each employer is about $15,000, which reflects a "credit" for the train fare paid by employees using the bus on the grounds that they wouldn't have used the train unless the 200 bus existed.

Most of the 200-series routes run in peak periods only, although some offer hourly service during the off-peak. Most routes carry 2/3 of their riders in the morning peak so that a significant number of riders travel only one way with the feeder bus. One route serving AARP and the Prudential Insurance Complex operates during non-peak hours for shift workers and for job interviewees. Routes carry from 10 to 20 passengers per daily trip.

Costs to some employers originally included vehicle lease expenses. Between April 1989 and early 1991 employers were required to pay one half of the vehicle lease cost or $12,650 per bus used **regardless of fare revenues**; the first two routes (which had not been charged this expense) were "grandfathered". Controversy and confusion eventually caused SEPTA to rescind that policy.

By fall of 1991, when we interviewed project staff, SEPTA had six operating 200 series routes, all serving suburban rail stations, and most significantly subsidized by private employers. Three of the routes were in serious danger of being canceled at the time we spoke because they were not sufficiently subsidized and their ridership totals were not high enough to cover costs[101]. On several routes, employers reported that the downturn in the economy made it easier for them to get sufficient employees without paying transportation subsidies.

The SEPTA Board has actually adopted a formal policy that the 200-series operate contingent on receipt of employer or other subsidies sufficient to meet expected deficits. The Board will only approve a 200-series route in the following case:

> Prior to the end of the first year of operations, SEPTA staff will evaluate the overall performance of the routes. A second year estimate of costs, revenues, and deficits will be prepared and first year contributors and possible new subscribers so notified...If second year and subsequent years' funding is not forthcoming [from employers, etc.] steps will be taken to modify service structure and service levels or to discontinue the routes.

Route 201, the first route, was still doing well in the fall of 1991; carrying 250 passengers per day, its operating ratio was 117% and it required no additional subsidies. The newest route, 203, provides service from the Pennbrook station to Merck and Ford Electronics; prior to service initiation staff had estimated a daily ridership of 90 passengers with the two firms agreeing to fund the $12,650 deficit. Unfortunately the route has only 23 daily passengers and will be discontinued if substantial subsidies are not agreed to.

Route 205 which connects the King of Prussia Plaza with the Wayne Regional Rail Station, serving three colleges and concentrations of office, hotel, and light industry, was funded in 1989 by private employers as part of a package of new week-day and week-end transit services in the area. Unfortunately, although other (non-feeder, non-reverse commute) routes put into service at the same time were doing better than anticipated by 1990, Route 205 was doing very poorly. SEPTA agreed to continue the service for a second year but only with serious service cuts. In the fall of 1991 the route was averaging 57 passengers daily (although the average Saturday non-work ridership was 130 passengers). In an October 1991 report SEPTA staff recommended discontinuation of all but Saturday service on Route 205.

Route 206 is one of the more successful routes. Converted from an existing route into 200 series service in May, 1988, the route connects the Paoli Regional Rail Station with the Great Valley Corporate Center in Chester Country. Originally funded jointly by Chester County and the Rouse Corporation, Rouse eventually picked up the whole deficit. The route operates weekdays only with eight morning peak trips and three afternoon peak trips. There has been a slow but steady increase in ridership, with most transferring from the regional rail system (there are currently 125 daily passengers, higher than originally anticipated) but the deficit had also increased because a second bus was required for the larger ridership. The total 1992 subsidy was $14,500. However SEPTA staff expect a smaller deficit in the future because ridership is expected to decrease after a local highway construction project is completed, allowing the service to revert to a one-vehicle operation[102].

Route 210 has also had higher than anticipated ridership but a higher than expected deficit; connecting the Willow Grove Regional Rail Station and the Horsham Business Center via the Prudential Business Campus the route originally required no subsidy. With first year ridership of 163 daily passengers (compared to an estimated 140 passengers) projected revenues were ahead of costs. However ridership studies revealed that only 40% of passengers were transferring from the regional rail system; the other 60% were transferring from other transit routes on which they paid substantially lower fares. Therefore SEPTA (over strong opposition from the Greater Willow Grove Chamber of Commerce) credited far lower revenues to the routes and projected a first year deficit of $14,400.

In order to overcome the need for this deficit, SEPTA has suggested cutting back 210 service significantly during mid-day which they predict will lower operating costs without substantially lowering ridership.

Route 211, connecting the Warminster Regional Rail Station with the Ivyland industrial area of Bucks County, has similar problems although it always required a subsidy. In the first year the $12,600 projected deficit was paid by Bucks County with the Bucks County Industrial Development Corporation agreeing to undertake fund raising efforts to take over second year funding. However, on board surveys showed that only 2/3 of

passengers were transferring from the rail service and that actual deficits were almost $33,400. The Bucks Bounty IDC did make quarterly payments on the expected $12,600 deficit but cannot cover an amount nearly three times higher; the County itself has also refused to provide additional subsidy. Therefore in October of 1991 SEPTA recommended discontinuation of the 211 route which is carrying 96 passengers daily.

It is hard not to be struck by the impact of SEPTA's particular definition of service success; neither (relatively) high ridership nor fairly substantial financial contributions from local business or government is enough to constitute a successful service. For SEPTA to continue to operate these feeder services, almost all the riders must be contributing to regional rail revenue and ridership and somebody must pick up almost all the expenses involved. It's unlikely that SEPTA applies these criteria to most of the other bus or rail routes in its vast system.

Using SEPTA's definition it appears that most of the feeder services were less than successful as transportation services, although public relations staff report that the routes have demonstrated their effectiveness in providing a link between employers and employees which is good for business. In the words of the SEPTA marketing director, "these services give substance to SEPTA's new slogan, 'Public Transit Means Business in Pennsylvania'."

There are no data on the numbers of riders who got or kept their jobs as a result of these augmented services and no data on the socio-economic status of those riders. There is anecdotal evidence that some are low skilled workers, and the willingness of some employers to subsidize service suggests that there is definitely a need for feeder connections to suburban rail services, although the primary beneficiaries are unknown. It is conceivable that some of these riders resemble those in the Princeton Area (ie higher income, higher skill levels) rather than being poor, unemployed inner city residents commuting out on rail lines.

Cobb Community Transit (CCT) provides feeder services to and from MARTA stations in Atlanta and DeKalb county; originally designed to take suburban residents to five suburban MARTA stations (since MARTA does not reach Cobb County), the system found itself with growing reverse commute ridership as people learned how to use the system. CCT has an agreement with MARTA which allows it to only service rapid rail stations and which permits free transfers between the two carriers. However, an examination of their route structure makes it clear that CCT actually provides significant service in downtown Atlanta which facilitates reverse commute activities.

CCT Route 10, which has the highest volume of reverse commute ridership (almost 3,400 trips weekly) stops at four major MARTA stations in the city (Five Points, the Peachtree Center, the Civic Center, and the Art Center) before travelling to suburban Cobb County in closed door operation. In Cobb County, Route 10 makes four stops including a large hotel and a major regional shopping mall. Another Cobb County route

stops at the Lennox Buckhead station which is a large new employment and residential area serving as the hub of the rail network. However staff admit that the scheduling of the buses is less convenient for reverse commute workers; all buses, including Route 10, operate during the peak only. Staff admitted that some reverse riders had asked for the provision of direct downtown Atlanta to Cobb County service but that the closed door agreement with MARTA precluded such activity.

The Cobb County example hints at one of the problems that may be hidden within some reverse commute feeder services; it is illustrated in Figure II. In Scenario One the transit operator (or TMA or employer) provides a feeder to meet rail riders coming from the inner city and takes them two to eight miles to a suburban employment concentration--that situation has been described a half dozen times in the previous sections of this report. But note that under many circumstances it is faster and more convenient for the rider to be provided direct express bus service from the CBD.

In many cases these more direct services are not provided because there are multiple, generally public, transit providers limited by jurisdiction or franchise, or the major regional provider operates the very expensive rail service and has a tremendous incentive to increase rail ridership on reverse commute service. Many of the more successful private reverse commute projects in Philadelphia, Chicago, and Washington were in fact addressing this situation--rail and other suburban transit services actually existed but they required time consuming, inconvenient, perhaps dangerous, sometimes expensive transfers. The private tenant management associations, etc were simply providing direct service.

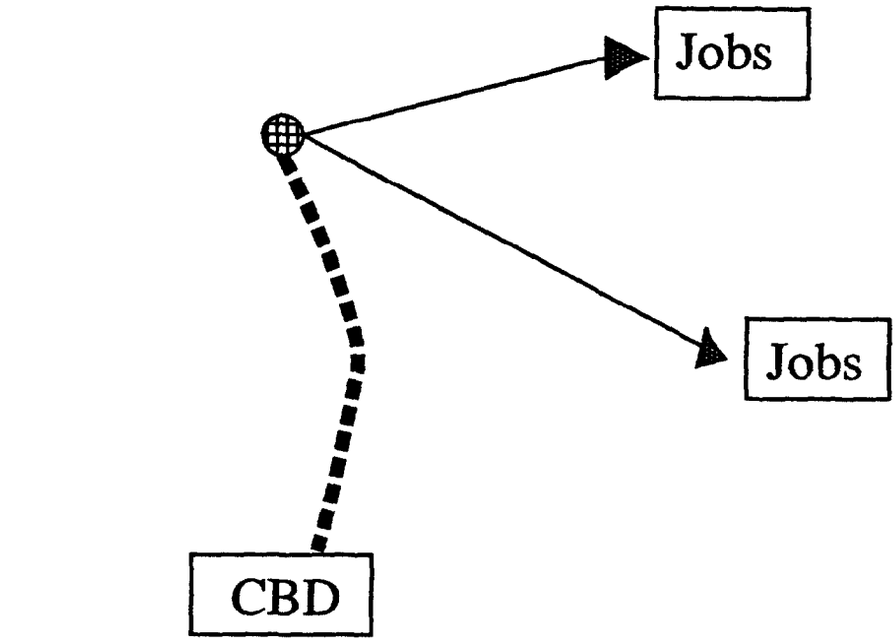
A Public Transit Brokerage

In 1988 the Maryland Mass Transit Administration was asked to sponsor a private entrepreneur in providing reverse commute services in the Baltimore area. Rather than give assistance to only one provider, the MTA requested an UMTA ESP grant to fashion a program called **Access to Jobs** which stresses the provision of private suburban transportation services by individual entrepreneurs.

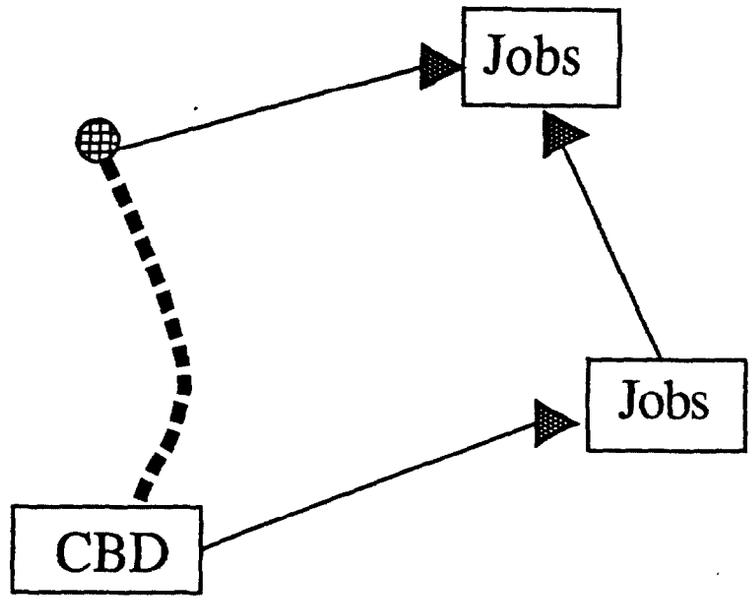
Like many of the transit operators described above, the MTA was often asked by individual employers to operate new services in suburban areas but had to refuse because they were simply too expensive to provide. With **Access to Jobs** the MTA has a mechanism to foster private transportation in areas which the MTA can not efficiently serve. In the first part of the program the MTA has enlisted a variety of private providers so that employers can choose among appropriate operators. The second part of the program focuses on outreach to suburban employers, to convince them of the advantages of subsidizing some or all of their workers' commute.

The program is designed to use FTA funds to help private entrepreneurs develop and deliver the suburban, often reverse commute, services, required by suburban employers

Reverse Commute and Rail System



Scenario One



Scenario Two

Key

= rail or rapid transit

= bus service

for which they are willing to pay. Entrepreneurs are expected to present their ideas and a business plan showing how they will be self-sufficient within two years. Yellow Transportation Service, the entrepreneur who "started the ball rolling" in 1988 began the first Access to Jobs service in December of 1990 using one van to carry employees to T. Rowe Price. Unfortunately, the service lasted less than three months because the employer had only initiated service to ease the transition to a new site and was unwilling to continue to pay the subsidy.

Although the economy has created serious problems for the program, project staff are hopeful that when there is an upswing there will be more interest in transportation services. Staff feel that the program will be in place when the economy picks up[103].

Obviously these results are remarkably similar to the problems and barriers faced by other public and private agencies described in previous sections. It is difficult to link transportation and employment, to get suburban fares very low if all costs are counted, or to obtain meaningful employer subsidy for transportation services. Like many of the projects described earlier staff blame the poor economy or employers who don't understand for problems which are much more endemic and complex.

SUMMARY AND CONCLUSIONS

This study analyzed both historical and current reverse commute projects and found remarkable, and cheerless, similarities. Overall there is little evidence that the provision of transportation services had any greater impact on inner city unemployment now that it did in the projects undertaken twenty-five years ago, nor that it was any easier to start a self-sufficient transportation system, nor any less difficult to get a public transit agency to take an active role in providing reverse commute service.

More specifically the study found that even during more happy economic times proponents of reverse commute services:

- *overestimated* the real extent of suburban vacancies matched to inner city resident skill levels,

- *underestimated* the costs of operating transportation services,

- *overestimated* the willingness of suburban employers to hire and train inner city workers for the vacancies that actually existed or to subsidize transportation services,

- *underestimated* the reluctance of inner city workers to endanger their families by giving up health and other public assistance benefits to take entry-level jobs, and,

- *overestimated* the proclivity of inner city workers to travel lengthy distances for low paying, often dead-end service sector jobs.

In short, inner city unemployment is a complex problem of which transportation may not even be part for many individuals; Figure III suggests the problem is a series of overlapping factors and needs.

The study also focused on different provider roles in reverse commute service provision and came to four major policy conclusions:

- non-transit agencies (public or private) appear to provide the most successful reverse commute transportation services for new job *seekers*, but only when the agencies provide a range of supportive services.

  ◇ These agencies do less well at providing daily repetitive commuter transportation for the people for whom they've gained jobs.

- transit operators can provide successful reverse commute services for those already employed in three ways: they can,

  ◇ rationalize and streamline existing bus services so that already employed workers don't face two and three transfers, commuting hours daily on trips that would take minutes by car,

  ◇ they can provide feeder bus services from regional rail or bus stations to major suburban employment complexes, synchronizing travel and work schedules, and,

  ◇ they can work with suburban employers or employment complexes to establish new bus services that provide fairly direct service from inner city neighborhoods.

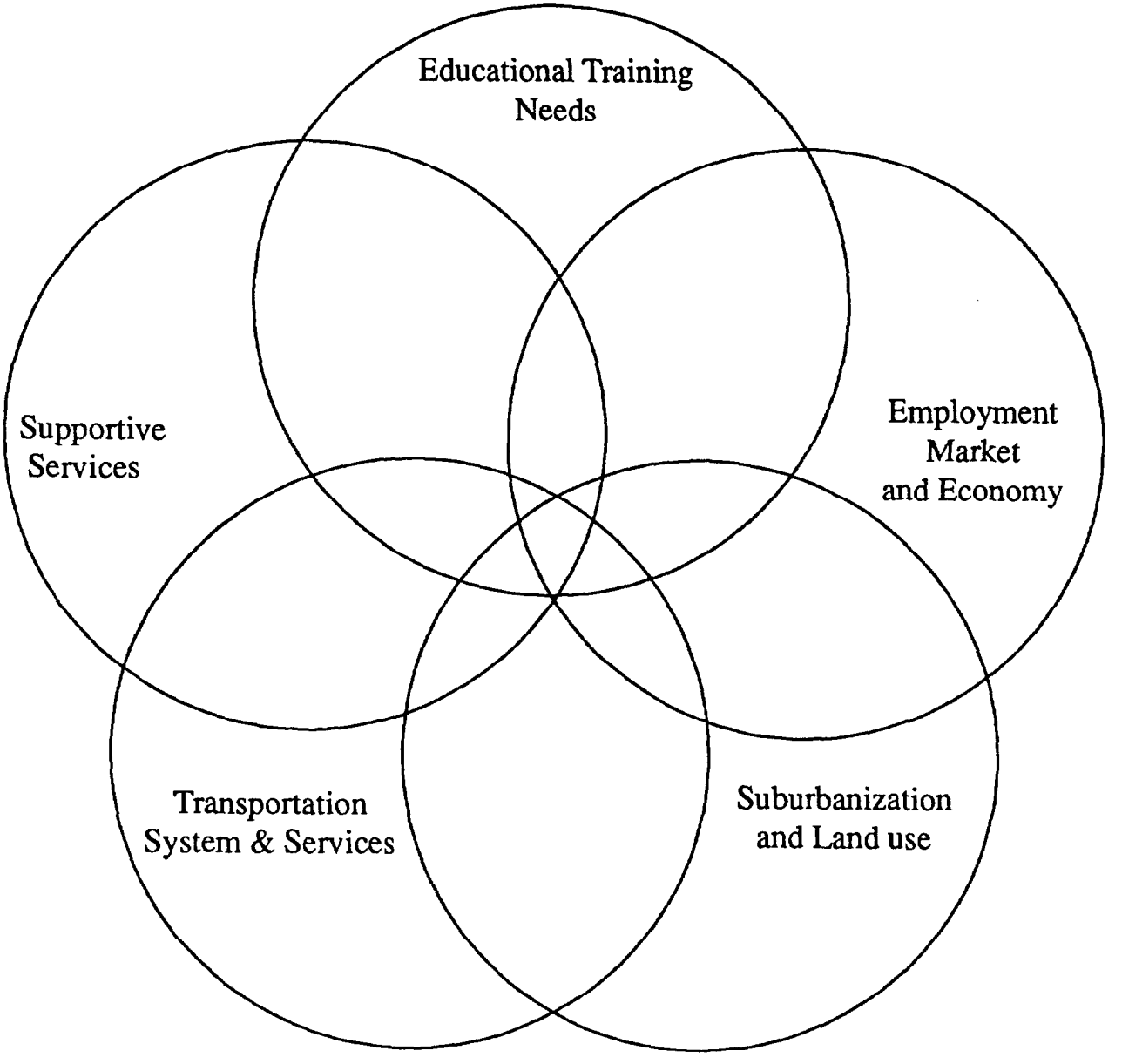
- there is an important role for private entrepreneurs in reverse commuting, largely as contractors to public agencies and to transit operators, because most work services cannot be self-sufficient without subsidy; private operators, whether for-profit or not-for-profit can:

  ◇ contract with public agencies to provide inner-city-to-suburban bus/van services;

  ◇ contract with public agencies to run feeder services.

- opportunities for genuine free-market provision of profitable reverse commute services are very limited, given restrictive transit franchising, the low income of

Reverse Transportation Services in Perspective



potential riders, and the high costs of service delivery, but they do exist; private operators can:

◇ profitably provide services as part of a family of transportation services to inner city neighborhoods, (spreading costs more evenly over the entire day), and,

◇ profitably provide services under contracts from private firms.

In addition, many low skilled and semi-skilled workers who are actually employed in the central city (that is, are not reverse commuters) face sometimes substantial bus trips because of the traditional radial nature of urban bus systems. Therefore a five mile trip which could be made in a car in under ten minutes might require almost an hour on a bus because of the need to go out of the way to effect a transfer. It appears that some of those working within the boundaries of the traditional city, as well as those commuting to the suburbs, may need transitional or permanent transportation services.

Finally it's important to note that reverse commute, as commonly defined, is only a problem in older, generally northeastern, urban areas with traditional cores; in fact, there are many (probably more) low income workers who face long and difficult commutes which are suburban to suburban. Clearly such people are a) not reverse commuters, but b) have just as serious a transportation problem. Also fairly clearly, some of the same transportation options which are being widely addressed to meet suburban transportation needs--from vanpools to subscription buses to shared ride taxis--could and should be investigated to meet these central city work trip needs.

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APPENDIX A

INDIVIDUAL INTERVIEWS AND CASE STUDIES

Table of Cases

PRIVATE NOT-FOR-PROFIT

Social and Human Service Agencies

1) Project Libertad
Washington, D.C.

STARTED: 1985

PURPOSE: To provide jobs to a few men living in homeless shelters and to provide transportation to those jobs

TARGET: Homeless men in D.C. shelters

INITIAL CONCERNS: To provide a short term pilot project to serve as an example of providing jobs and transportation

PLANNING: Paul Leach and D.C. homeless shelter (Office of Latino Affairs ran shelter for Cubans, Salvadorans, and other Hispanics)

FUNDING: Red Cross loaned van, donations, donated school bus, passenger fares, employer contribution, small UMTA ESP grant

ELIGIBLE GRANTEES: NA

OPERATION: High unemployment in central city, a building boom in the suburbs, and inadequate out-bound transportation created a need to link jobs and transportation. Mr. Leach looked for jobs, especially in landscaping, and drove the bus. Passengers paid $2 for a one way trip, which was cheaper, quicker, and more convenient than public transportation. Employers were asked for a $1-2 donation per person. A small UMTA ESP grant was also received. Old school buses are used because they can transport many people, are cheap and easily obtained, and the driver is the main expense. They did not advertise. After a year the riders tended to be predominately people from the neighborhood, which was a more reliable workforce with a better reputation. The jobs tended to be seasonal and the current recession has made job development very difficult. Social services are provided through the churches and shelters and no job training is provided.

RESULTS: Some people got back on their feet. Some acquire cars. Some people manage to stay in the workforce.

PROBLEMS: Seasonal nature of the work available for unskilled workers. Need more job development. Need to emphasize temporary placements. Very demanding job for basically one person.

ENDEMIC PROBLEMS: Weak economy, unskilled workers, seasonal nature of the jobs available, difficulty keeping the project going.
Many workers do not drive or have no driver's license. Also, many do not speak English.

NEEDED CHANGES: Passengers need to assume complete control of the operation. Mr. Leach proposes to turn the entire operational control, including attracting passengers, recruiting employers, and work with social service agencies, over to a passenger board. He is also considering converting some of the busses that are currently not being used into landscaping trucks to service large contracts.

SUCCESS: Project Libertad has been running since 1985. It has helped some people and will continue if the beneficiaries are motivated to take over the organizational work. The expenses are not high because they own the busses.

VIABILITY: Depends on the ability and desires of the passengers to take over the operation. Mr. Leach has committed to a new job at a rehabilitation center for alcoholics.

2) Community Family Life Services
305 E Street NW
Washington, D.C. 20001
202/347-0511

STARTED: Fall 1985

PURPOSE: To provide shuttle service to jobs for low-income and unemployed D.C. residents

TARGET: CBD residents and suburban employers

INITIAL CONCERNS: To provide jobs in the suburban market and to transport workers to those jobs

PLANNING: CFLS initiated contact with various employers. Local churches donated a bus. Employee Transportation Assistance (ETA) was formed to pre-screen applicants, teach basic job-seeking and job-retention skills, and to match employees to employers.

FUNDING: Clients pay $3.50 per day and companies pay $15 per shift for transportation. Most CFLS workers are volunteers. The services has been supported by donations, an UMTA research and development grant, and a grant from the Philip Graham Foundation.

ELIGIBLE GRANTEES: NA

OPERATION: Large suburban employers such as Dulles Airport and employment centers who need full-time employees for unskilled positions such as baggage handling, food service, housekeeping, custodial, and maintenance work hire workers pre-screened by ETA and pay $15 per shift for workers' transportation. Workers' pay $18 per week. When collection became difficult, employers paid and later deducted the money directly from paychecks. ETA provides several benefits to employers: applicants are pre-screened, references are checked, applications are completed, interviews are arranged, most applicants are eligible for Targeted Jobs Tax Credit (TJTC) and public service.

RESULTS: ETA expanded rapidly and was very successful at meeting the needs of both employees and employers as long as the economy was expanding and employers were willing to subsidize the service and needed the workers. When the recession began impacting the economy, jobs and subsidies were lost. The service is currently waiting for the economy to improve so it can be expanded again.

PROBLEMS: Multiple drop-off sites and times, collecting fares from riders, on road break downs, communication with drivers, employers unwilling to pay subsidy, inconsistent employees, and difficult work

ENDEMIC PROBLEMS: Fluctuations in the economy, job skills and motivation of employees, high attrition rate, scattered job sites and work hours, employees are 95% black, 75% male, 25% female, unskilled, some have history of substance abuse, some are ex-offenders, some are homeless

NEEDED CHANGES: Improved economy, employers willing to subsidize transportation and to hire inner-city residents

SUCCESS: Over 950 D.C. residents have been placed in jobs. Some have been able to acquire their own transportation. Many CBD workers have had the opportunity for employment and employment counseling from ETA.

VIABILITY: The service will resume active recruiting of employers when the economy revives. CFLS remains committed to the concept, but at the present time is offering a reduced level of service. Employers must be willing to hire CBD workers and subsidize transportation.

Tenant Management Associations

1) Lakeview Transportation Service, Inc.(L.T.S. Inc.)
2700 Washington Ave.
Cleveland, Ohio 44113
216/344-7543

STARTED: Received ESP Challenge grant December 1988
Started service June 1991

PURPOSE: To serve the employment needs of Lakeview Terrace public housing project residents by providing access to suburban job markets and to increase the mobility of residents

TARGET: Lakeview Terrace residents and low-income CBD residents

INITIAL CONCERNS: To provide suburban employment opportunities as well as entrepreneurial opportunities to residents

PLANNING: Lakeview Terrace Tenant Management Firm, Inc. received ESP challenge grant. Pryde Roberts, Inc. of Washington, D.C., under a separate UMTA contract, studied the feasibility of the transportation project. Cornell Calhoun III was hired as General Transportation Manager. Multisystems of Cambridge, MA was chosen to plan the design and operation of the transit system. The service was envisioned as operating a fleet of eleven mini-buses on fixed routes to and from Solon.

FUNDING: An UMTA ESP Challenge Grant of $100,000 funded initial planning. An additional $150,000 raised from private sources made it possible to purchase a van and pay for insurance and to hire drivers. The Pryde-Roberts report assumed cashbox fare would generate considerable income and that suburban employers would be willing to subsidize the service. (Employers were never asked if they would be willing to hire CBD residents.) The report also assumed, perhaps unrealistically, that mid-day shoppers would justify the expense of continuous service. Thus, start up and early phase costs, as well as the size of the route, were unrealistic.

ELIGIBLE GRANTEES: NA

OPERATION: The Transportation General Manager has engaged in fundraising activities and worked on developing support for the program with local officials. A survey to determine the employment needs of residents was circulated. Start up service was limited to employment needs of residents and ran during peak hours only. The General Manager markets the service to employers to develop jobs for residents. He has been unsuccessful in getting employers to subsidize employees' transportation. JPTA training classes provide screened employees.

RESULTS: L.T.S., Inc. is currently transporting 24 people/week in a 15 passenger van. Agencies call Mr. Calhoun to take people to job interviews, training, testing, and employment. The employees receive the service free for 6 months. After the first 6 months, they pay $1.25 each way. A JPTA class which will graduate in September should increase the ridership. If ridership is not high enough L.T.S., Inc. will consider developing additional uses for the van.

L.T.S., Inc. will also seek contracts with social service agencies. The service is available to all low-income workers, not just Lakeview Terrace residents.

PROBLEMS: Mr. Calhoun has had difficulty developing job opportunities for Lakeview residents because employees are not needed enough for employers to be willing to subsidize transportation. In some cases it is difficult for employers to find employees because the economy is slow and because low wages, $4.00-$4.25/hr, do not attract workers.

ENDEMIC PROBLEMS: It is also difficult to attract workers because of the structure of benefits. The low wages offered are little incentive to those people who receive public assistance. Also, once they begin working, their rent increases, based on HUD guidelines of 30% of income. As noted by Mr. Calhoun, more research is needed to address this problem.

NEEDED CHANGES: Improved economy, employers willing to subsidize transportation, higher wages, employers willing to hire CBD residents

SUCCESS: Currently 24 people/week are being served. This number may increase with JPTA training class graduation. Contracts with social service agencies may add additional riders. The possible success of the program is uncertain. The location of jobs is important. L.T.S., Inc. is unwilling to drive excessive distances (30-40 miles one way) due to the increased wear on the vehicle and the additional expense.

VIABILITY: Depends upon developing routes, probably to serve social service agencies or job training programs. Improvement in the economy would help.

2) Cochran Gardens Transportation Service
1908 O'Fallon St.
St. Louis, Missouri 63106
314/241-4723

SOURCE: Interview with Pat Ferguson Willis, Executive Director promotional materials

STARTED:

PURPOSE: To provide access to suburban jobs for inner city residents, and Cochran Gardens residents in particular, to provide a shuttle service for elderly and disabled, and to bring dignity and self-sufficiency to inner-city residents

TARGET: Inner-city residents, Cochran Gardens residents

INITIAL CONCERNS: To find employers willing to pay the costs of transporting workers to jobs and to find enough interested workers to make trips economically feasible

PLANNING: UMTA Section 6 grant money was used to initiate the service. Employers were sought, unsuccessfully, to subsidize the service. A counselor aided employees with filling out job applications, interview skills, and employer relations. Day care facilities at Cochran Gardens would enable parents to accept employment when transportation became available. National Center for Neighborhood Enterprise provided assistance.

FUNDING: $150,000 UMTA ESP grant and UMTA Section 6 grants paid for consultants, planning, and the legal and office expenses necessary to set up the business. NCNE provided some technical assistance for marketing.

ELIGIBLE GRANTEES: NA

OPERATION: The executive director and driver are currently the only employees. A counselor who rode the bus to help work out job disputes, behavior problems, and unrealistic expectations could not be retained due to finances. When time permits, Ms. Willis takes on this role. One 24 passenger bus is used to transport residents to employers who are clustered together, within a 30-mile radius.

RESULTS: The service is generally being used by residents with jobs in housekeeping, restaurants, janitorial positions, and factory work. Due to a lack of self-esteem, Cochran Garden residents seldom take advantage of JPTA training opportunities. Employers will not provide extra compensation for transportation. In 1990, CGTS averaged 100 riders; in 1991, the average that number had decreased to 60.

PROBLEMS: Continual help is needed with funding the service. Since the grant money is almost depleted, other means must be found to pay for gas, insurance, and the driver

ENDEMIC PROBLEMS: Employers of JPTA trainees are unwilling to pay transportation costs because they do not receive additional government compensation. One problem with the JPTA program is that workers must be employed for 90 days before employers are compensated for hiring them.

This impacts employers' willingness to support transportation services. JPTA trainees are not needed in the numbers necessary to provide economical transportation. There is a high turn-over in the entry-level jobs because of low pay and the benefit structure. It is often cheaper to stay home rather than experience benefit reductions, such as higher rent and increased medical costs, as well as paying for child care. Increased insurance costs for transporting disabled persons has also been a hindrance.

NEEDED CHANGES: Continual funding help is needed. The state must provide assistance to reflect the reduction in welfare costs that occur when a non-worker becomes employed. Flaws in the welfare and housing subsidy program also need correcting. Delayed payments from JPTA to employers help discourage them from providing transportation assistance.

SUCCESS: Cochran Gardens Transportation Service is seeking contracts with nursing homes and other service providers to supplement the employment transportation routes. Success depends on developing or acquiring additional sources of revenue. The state of the economy has little effect on these high turn-over jobs.

VIABILITY: Additional funding sources will be necessary.

3) Bromley-Heath Tenant Management Corporation
Bromley-Heath Connector, Inc. (The Connector)
42 Horan Way
Jamaica Plain, Massachusetts 02130
617/445-8515

SOURCE: David Worrell

STARTED: Planning for the service began in 1988 after the receipt of an UMTA grant. Transportation services started in 1990.

PURPOSE: The Connector sought to provide transportation to jobs or job training for Bromley-Heath residents and others needing the service. Money from the business would be returned to the community

TARGET: Bromley-Heath residents and others needing transportation access to employment

INITIAL CONCERNS: The Connector wanted to create a viable business that served the transportation needs of the community. The initial UMTA grant application was placed during the height of the "Massachusetts Miracle," but by the time the money arrived, the 128 Beltway around Boston was experiencing the recession, job lay-offs, and business closings.

PLANNING: Bromley-Heath Tenant Management Corporation formed a new corporation, Bromley-Heath Connector, Inc. The Board consisted of community members with transportation and business expertise. It was difficult to charge enough for transportation services to recoup the costs involved, without making the service prohibitive for riders. Riders could not pay the true cost of the transportation and employers were not interesting in subsidizing transportation. An alternative plan was developed to contract with job-training agencies to provide transportation to both jobs and job training.

FUNDING: Costs are covered by contracts with job-training agencies. A 15 passenger van had been purchased previously using grant monies. The Connector's costs are lower because non-union drivers can be used since the runs do not conflict with established transit service. Additional entrepreneurial routes are being developed to shopping centers and prisons and anywhere else that will produce enough riders to cover costs. Since The Connector is not operating with grant money, it does not have restrictions on the use of the van and it is free to develop other services.

ELIGIBLE GRANTEES: NA

OPERATION: The Connector operates strictly as a for-profit transportation service. It does not provide social services or training. Costs for current runs to training facilities and job sites are paid by job-training agencies. Polaroid is the main employer. Additional runs to prisons and shopping centers are available when ridership is high enough to cover the fixed costs of the transportation. Bromley-Heath Tenant Management Corporation is not involved in pricing. It is the responsibility of the training agency to charge the employee and/or the employer for the service, or to pay the entire cost itself.

RESULTS: New employees have been able to enter the job market because of reliable transportation. The Connector has had inquiries from workers already employed at the job sites, but the costs are prohibitive at this point for individual, non-subsidized service. A sufficient number of riders is needed to cover the costs before they will initiate new service. (Six is the minimum). Employers don't seem willing or interested in paying part of the costs. There is always a turnover in riders. Some do not keep their jobs, and of those that do stay on, some have saved enough money to purchase their own car.

PROBLEMS: The Connector is seeking contracts with other training agencies both to expand service and to provide a back-up for the expiration of the current contract. Ridership is continually lost through attrition. Since employers are not willing to subsidize transportation, ridership must be high enough to provide service at a reasonable cost. Additional uses and routes for the bus need to be developed.

ENDEMIC PROBLEMS: Fixed costs of transportation, the need for at least six riders to justify a run, normal attrition

NEEDED CHANGES: New contracts must be developed. Additional runs will be developed when ridership demand is high enough.

SUCCESS: The Connector is successful now because it is operating as a business and is covering its expenses. It will be truly successful when it can expand, buy more vans, have more runs, and provide service 7 days per week. Transportation service is allowing people to become employed.

VIABILITY: The service appears to be viable because it is focusing exclusively on one aspect of the problem---transportation. Other agencies are providing funding and all social services.

4) Accel Transportation
4340 South Lamon Ave.
Chicago, Illinois 60638
312-735-9245

SOURCE: Joyce Arrington, Accel Secretary
Promotional literature, newspaper articles

STARTED: June 1989

PURPOSE: Accel's goal is to provide CBD residents, and LeClaire Courts residents in particular, access to suburban jobs by providing reliable, reasonably-priced transportation. Accel also attempts to develop and support new entrepreneurial opportunities for housing development residents and residents of surrounding neighborhoods.

TARGET: LeClaire Courts residents and DuPage County employers

INITIAL CONCERNS: LeClaire Courts Resident Management Corporation, a non-profit organization, lacked transportation experience necessary to establish a for-profit transportation subsidiary.

PLANNING: LeClaire Courts hired a director with transportation experience to establish Accel Transportation. Employment and training specialists refer LeClaire Court residents to jobs. Accel contracts with employers to sell tickets, which are subsidized by the employers. A marketing specialist and word-of-mouth are used to provide information about the service.

FUNDING: Expenses have been met using a $90,000 UMTA ESP grant, employer subsidy of fares, and employee fares. Corporate matching funding (MacArthur, Amoco, Wieboldts) enabled Accel to purchase three vans.

ELIGIBLE GRANTEES: NA

OPERATION: Accel, using three vans, transports over 129 people per week in DuPage County to jobs that are clustered near each other along the expressway. The thirty-mile ride takes 30-45 minutes and costs $5.50 round trip. Some of the fare is paid by the employers who sell subsidized tickets. Employment and training specialists at LeClaire Courts refer residents to jobs. A child care center and resource facility, located at the Clarence Darrow Center in LeClaire Courts, is available to Accel clients.

RESULTS: Accel is meeting its planning objectives and is providing transportation to allow residents to work in suburban jobs.

PROBLEMS: Some contracts require that service continue to employers even when employee level is too low to justify the stop. It is essential that jobs be clustered in close proximity to one anther.

ENDEMIC PROBLEMS: It is difficult to get jobs that are grouped together near the freeway. The commute time to the jobs, which are 30-45 miles away, is long.

NEEDED CHANGES: More employers are needed who are willing to hire low-income, minority, CBD residents

SUCCESS: Many LeClaire Court residents have been able to accept suburban employment because dependable transportation is available.

VIABILITY: It will be more difficult when grant funding expires.

Transportation Management Associations (TMAs) and Private Employer

1) Greater Princeton Transportation Management Association (GPTMA)
621 Alexander Rd.
Princeton, New Jersey 08540
609/452-1491

SOURCE: Interview with Nancy Podeszwa, Director

STARTED: Shuttle service started October 15, 1990. GPTMA was formed in 1984 as a non-profit, membership corporation with the goal of initiating traffic reduction programs.

TARGET: Railroad commuters who work at the Princeton Forrestal Center GPTMA may ride the commuter busses at no charge to the employee.

INITIAL CONCERNS: The developer of the employment center wanted to start a shuttle service that would serve the entire development and would incorporate private shuttle services being run by Merrill Lynch, First Boston, and American Reinsurance. This was seen as a marketing tool for the developer and as a means of lowering costs by the other businesses.

PLANNING: GPTMA determined the needs of the businesses and matched them with the train schedules to plan the needed service. They sent a request for proposals to local transportation companies. GPTMA used an UMTA ESP grant for planning expenses.

FUNDING: The businesses pay $104,000/year ($50/hour, $400/day) in addition to paying 10% (8% for members) to GPTMA for administrative costs involved in scheduling and coordinating buses with changing train schedules.

ELIGIBLE GRANTEES: Several local limousine companies are now interested in bidding for the job.

OPERATION: The shuttle meets trains and provides transportation to trains at no charge to the employees. Businesses pay the entire operating costs. GPTMA provides sponsors with monthly ridership statistics and handles inquiries about the service.

RESULTS: Daily ridership averages 75. The companies are willing to pay the entire costs of the shuttle to avoid relocating employees or losing them. The riders are white-collar and executive level employees. The seemingly easy success of the shuttle is a result of the long history of service, which was started by Merrill Lynch in 1987. Also, the strong commitment of the employers has made the service possible.

PROBLEMS: There have been no reported problems.

ENDEMIC PROBLEMS: none

NEEDED CHANGES: Public transit companies could be more innovative and service-oriented. They could experiment with creative ways of providing transportation to people needing the service.

SUCCESS: The shuttle has been very successful and has had few problems. The companies are committed to providing the service and the ridership justifies the expense.

VIABILITY: The service will continue as long as it is supported by the businesses involved.

PUBLIC NON-TRANSIT AGENCIES

1) Wisconsin Job-Ride Program
Wisconsin Department of Transportation

SOURCE: Interview with Linda Lovejoy, Acting Director, Bureau of Transit, Wisconsin Department of Transportation, Wisconsin Job-Ride Program, 1989 Report

STARTED: 1989, Milwaukee

PURPOSE:
1) To provide access to suburban jobs for inner-city and minority residents
2) To reduce welfare dependency
3) To alleviate suburban employee shortages

TARGET:
1) Permanent jobs
2) Inner-city and minority residents
3) AFDC recipients

INITIAL CONCERNS:
1) The program might subsidize suburban employers at the expense of the city.
2) Housing segregation would be promoted.
3) Conflict with public transportation programs

PLANNING: WISDOT, business and community leaders, city and county officials, minority civil rights, community organizations, and public transit union officials met to achieve consensus and address concerns.

FUNDING:
DOA oil overcharge revenues
Fares/grantee contributions (20%)

ELIGIBLE GRANTEES:
Non-profit organizations
Businesses
Local government agencies
Areas outside Milwaukee

OPERATION: Non-profit organizations apply in a competitive bid process to receive funds for transporting workers to suburban jobs. Organizations provide job development, training, and placement services. Initial participants were Milwaukee Urban League, Goodwill Industries, and Milwaukee Careers Cooperative. In 1990, Milwaukee Area American Indian Manpower Council and Opportunities Industrialization Center were added. Leased or purchased vans are used. MCC also contracted for the use of a large bus for some service.

RESULTS:
Access provided to 2038 jobs during calendar years 1989-1990
Savings due to reductions in welfare payments
Savings due to increased tax payments

PROBLEMS:
Accurate reporting
Attrition causes loss of economy in trips to suburbs
Lack of coordination among agencies causes duplication
Increased costs, fewer placements

ENDEMIC PROBLEMS:
Weak economy
Long term dependence on the service prevents new placements
Welfare dependence issues:
- Low wages with no prospects for increase
- Healthcare
- Child care time and cost
- Cashflow problems upon job acceptance

Competition for better paying jobs in suburbs
- Drug testing costs and issues
- Longer travel times to poorer paying jobs

Not enough state encouragement for employers to hire Job-Ride participants
Temporary employment issue
Scheduling and dispatching coordination issue

NEEDED CHANGES:
Coordination with the state to get more hiring incentives.
Better evaluation procedures and requirements
Possibly lower placement expectations
Develop more favorable van lease-purchase terms
Employees encouraged to find alternative transportation
Employers encouraged to participate in state-wide ride sharing and van loan programs.

SUCCESS:
The program is considered successful because in 1989 and 1990 it has served 4525 people in 1440 permanent and 598 temporary jobs at a state subsidy of less than $400 per permanent placement. Of those 4525 participants, 96% were minority, 88% were unemployed or underemployed, and 29% were AFDC recipiants. 97,626 one-way person trips cost an average of $7.15 each. For 1989 and 1990, service has been expanded to more agencies, and funding has been increased to $500,000 annually.

VIABILITY:
Funding depends on oil overcharge monies or state funding from other sources. This could be a problem after July 1993. Economic conditions creating excess suburban jobs are essential. Improved job development, training, and marketing are necessary to sell the service. Better evaluation procedures by and of agencies are needed for accurate reporting and planning. Figures showing government savings for welfare and increased tax receipts are an important justification. However, is minimum salary of $4/hour enough for this to work? Coordinator is enthusiastic and committed to the program.

2) City of Hartford
Department of Transportation
Bureau of Public Transportation
City of Hartford
Hartford, Connecticut 06106
203/722-8490

SOURCE: Telephone interview with Thomas Phillips, Bureau Chief Bureau of Public Transport, Hartford, Annual Report, July 1, 1989 to June 30, 1990, Employment Transportation Services, ETS Information Package and Agency Guidelines, Annual Report, Employment Transportation Services Participation in the 1989 Summer Youth Employment and Training Program,

STARTED: 1977

PURPOSE: Employment Transportation Services (ETS) provides temporary, subsidized transportation to suburban and urban employment and training sites that are not served or are insufficiently served by public transportation. Transportation services were started to settle a civil rights law suit based on inequitable transportation from the CBD to the suburbs. ETS attempts to provide transit services to employment centers, job interviews, physical exams, and other social services as well as student access to summer jobs and after school employment. ETS also tries to match AFDC women living in public housing projects with employment opportunities and support services.

TARGET: CBD residents

INITIAL CONCERNS: ETS wanted to provide equitable transportation for CBD residents seeking employment and services in the suburbs.

PLANNING: The State DOT program was expanded to include industrial employment centers. A Collective Resource Management system was initiated under which various agencies met to determine the requirements for recipients of aid to reach self-sufficiency. Aid recipients, women, and children were targeted. Self-sufficiency was the desired outcome. The program currently has six different projects with several different funding sources.

FUNDING: City of Hartford and Connecticut DOT, UMTA Section 9, Federal Job Training Partnership Act, Community Development Block Grant, City General Funds, Hartford Board of Education, CIGNA Corporation.

ELIGIBLE GRANTEES: All transportation operations are privately contracted. Hartford Transportation Services (HTS) began contracting with the Conneticut Company in 1987 for drivers, operations staff and vehicle storage.

OPERATION: 1) ETS Interview Service provides free transportation for pre-employment appointments. Transportation arrangements are requested both by job development agencies and employers. There is no charge for this service.
2) The Suburban Jobs Project provides up to 4 weeks transportation to suburban employment sites hiring 1-3 persons.
3) ETS Vanpools provide temporary transportation (up to 4 months) to four or more unemployed or underemployed Hartford residents to training or employment within a 25-mile radius of Hartford. The van pools are initiated either by companies or agencies.

4) Summer Youth Employment and Training Program provides free transportation to youths for remedial education, world of work training and job placement services.
5) Corporate Work Experience Project is a public/private co-venture that provides transportation to students working at CIGNA.
6) Barriers Removed: Employment Assistance Collaborative (BREAC) provides transportation to assist single mothers entering the labor market. Participants receive assistance in day care, transportation, job training, counseling, job placement, and follow-up case management.

RESULTS: The service pays for itself if the decreased government benefits paid out and the increased tax revenues being collected are counted. In 1989, 24,000 one-way trips were made by 900 individuals, many of whom were recently unemployed for long periods of time. A majority had no access to an automobile. 88% were minorities, 50% were between 20 and 30 years of age, and a slightly more than 50% were female.

PROBLEMS: The economy has temporarily slowed progress. Unemployment is up, and the budget is down.

ENDEMIC PROBLEMS: The slow economy, low wages, the structure of government benefits, and the recipients' need for multiple social services.

NEEDED CHANGES: Improvements are needed in coordination and cooperation among job development agencies and community-based organizations whose clients utilize ETS. Job retention studies are needed as well as studies which analyze the reasons for numerous job openings and the areas of high unemployment. Improved data collection and management would help those involved in services to recognize problems and to work toward solutions.

SUCCESS: The program has removed the transportation barrier for many Hartford CBD residents seeking employment and social services. If the program is looked at in terms of increased government revenues from taxes and reduced expenditures for aid, the program pays for itself.

VIABILITY: The program is currently in a slow phase because of the economy. This time is being used to reorganize and to develop an action plan for the next business cycle.

3) Regional Employment Program (REP)
District of Columbia
Department of Employment Services (DOES)
202/639-1190

SOURCE: Eugene Phillips

STARTED: 1985, Washington, D.C.

PURPOSE: REP is designed to assist--through regional cooperation with Maryland and Viginia suburban employers--D.C. residents in finding meaningful employment. It focuses on assisting in matching suburban employers needing employees with unemployed D.C. residents. The program also has several other aims: regional cooperation; job training, screening, referral, and transportation; an advertising campaign; an inter-jurisdictional planning process; and assisting in creating and maintaining a stable workforce

TARGET: D.C residents and suburban employers

INITIAL CONCERNS: Low-income, inner-city residents without access to suburban jobs, and suburban jobs not within walking distance of Metrorail stations.

PLANNING: Metropolitan Washington Council of Governments, elected official, local employers

FUNDING: Metrorail
No Metrobus from suburbs to city
Various non-profit organizations

ELIGIBLE GRANTEES: None offered
REP assists employees find work through a network of services and agency cooperation and subsidizes employers up to half the cost of leasing vans.

OPERATION: Computerized Central Job Bank, screening, interview facilities for employers, job readiness training, Targeted Jobs Tax Credit (TJTC) assistance to employers, Immigration Reform and Control Act of 1986 form assistance to employers, transportation system information, transportation subsidies, van-leasing subsidy for employers

RESULTS: Sustainable ridership, but as a means of providing a "temporary mode providing the means to upward mobility for many who otherwise would not have achieved it." RC transit must be flexible and capable of constantly altering to reflect changing employment patterns.

PROBLEMS: It is difficult to maintain transit ridership because more people have automobiles. Commuting by car is easier, less time-consuming, sometimes less expensive, and more locations are accessible. The lack of concentrated employment at major activity centers makes it difficult to maintain RC service.

ENDEMIC PROBLEMS: Weak economy, affordable housing in the suburbs, education and job-training development patterns in suburbs. Employers need to actively recruit from the inner-city communities and be willing to provide fare subsidies or direct van service or shuttle van connections from Metrorail stations.

NEEDED CHANGES: More active employer participation through recruiting and subsidizing transportation and shuttle connections to Metrorail stations

SUCCESS: Must be measured in social terms rather than in number of passengers or a cost basis for services is a temporary means to provide participants enough upward mobility to get a car.

VIABLILITY: Improving economy will increase job supply. Employers must participate more fully. Transportation is only part of the problem; other services must be a component. Metropolitan Washington Council of Governments and the National Capital Region Transportation Planning Board study of existing reverse commute transit services found factors which make reverse commuting transit service difficult to maintain, such as the ease and low cost of commuting by automobile, decline in number of households without automobiles, increased job opportunities within automobile commuting distance, and lack of concentrated employment centers in suburban locations. MWCOG concluded that reverse commute services can be viewed as successful in providing access to employment, but flexible scheduling and changing routes and constant re-assessment are a necessary component because workers tend to purchase cars or find alternative transportation as soon as they can afford it. Currently almost no bus service runs from suburbs into the urban core. Services are designed to flow into the Metrorail system. This creates problems of fare equity, increased demand through major flow maximum load points, and the need for shuttle service between jobs and Metrorail stations. Several reverse commute projects are privately run such as Family Life Services and Project Libertad.

PUBLIC TRANSIT AGENCIES

1) Cobb Community Transit
Operated by ATE Management and Service Company
Under contract to Cobb County Board of Commissioners
Atlanta, GA

STARTED: July 1989

PURPOSE: To provide transit service within Cobb County, to provide transit access to and from Atlanta in order to meet the needs of the suburban residents as well as business owners needs for entry level employees, and to maintain local control of transit operations.

TARGET: White-collar workers commuting into Atlanta
Business and industrial developments needing workers

INITIAL CONCERNS: To meet the needs of the rapidly expanding suburban community, to provide transit connection into Atlanta, and to maintain local control.

PLANNING: Cobb County Board of Commissioners chose ATE Management to operate transit service which would fulfill their goals and objectives.

FUNDING: Cobb County taxes, federal funding

ELIGIBLE GRANTEES: NA

OPERATION: ATE provides maintenance, operations, risk management, safety and security, management information systems, planning, scheduling and service design, finance and accounting, marketing and public relations, and labor negotiations. Forty passenger busses are used. Four routes serve reverse commuters.

RESULTS: Busses service the entire county, which includes service to many industrial and office parks and reverse commute routes into Atlanta. A typical monthly ridership of 179,334 includes reverse commute ridership of 4461 on 10A, 2653 on 10B, 2000 on 60, and 25,000 on 10.

PROBLEMS: Fare rates and timing to meet needs of both white-collar commuters into Atlanta and blue-collar workers into Cobb county.

ENDEMIC PROBLEMS: Rapid expansion of suburban area

NEEDED CHANGES: More participation by large employment centers

SUCCESS: Ridership is steady and increasing and more large employers are requesting service.

VIABILITY: Cobb County is currently expanding rapidly and is very prosperous, with a large retail and industrial tax base to support services.

2) Metropolitan Atlanta Rapid Transit Authority (MARTA)
401 W. Peachtree Street
Atlanta, Georgia 30308
404/848-5283, FAX: 404/848-5321

SOURCE: Mr. P.O. Johnson, Director of Scheduling

STARTED:

TARGET: Atlanta residents

INITIAL CONCERNS: MARTA attempts to meet the demands for transportation in a convenient, cost-effective manner. When the demand is higher, service is more frequent. In the Feeder Bus system buses meet trains at scheduled stops to take riders to nearby employment centers. This commute is shorter than the traditional bus service to the same areas. Fares are low to encourage ridership. Since reverse commuting begins earlier, MARTA begins service at approximately 5 a.m.

PLANNING: Extensive research is conducted before new routes are opened, including surveys of riders and area residents. All requests for service are investigated and evaluated. After plans are developed, plans for new service are presented to the Board of Commissioners and at a public hearing.

FUNDING: The bus and rail system split federal and local funds. The fare box return averages 36%. MARTA receives no state support, but a 1% sales tax is used to generate funds for public transportation.

ELIGIBLE GRANTEES: None. MARTA originally had five routes contracted to private companies, but the unions sued, and the routes had to be discontinued.

OPERATION: The trains run approximately every eight minutes, and they are usually met by buses, especially during peak morning and afternoon commute periods. 80% to 85% of the buses are timed to coincide with train schedules. Cobb County bus routes are designed to interface with MARTA routes.

RESULTS: The captive riders of the central business district are well served by MARTA, but as new employment centers open in suburban areas, it is necessary to develop routes to enable them to get to those jobs. This is difficult because of budget constraints. If service is not added to anticipate the demand, potential riders find alternative transportation to reach the suburban centers.

PROBLEMS: The lack of funds has made it difficult to open new routes, but new feeder bus routes will continue to be developed because four more new railroad stations will be added to the system before the 1996 Olympics. Much of the service is based on finances because new service is difficult to add. Currently all the bus capacity is used during peak hours and there is no money for additional purchases.

ENDEMIC PROBLEMS: The depressed economy and the budget restrictions make it difficult to add new service and to meet the demands for transportation.

NEEDED CHANGES: Funding needs to be provided for additional service.

SUCCESS: The feeder bus system has been very successful in allowing train users to get to employment centers and shopping malls at a minimal cost and in a reasonable time.

VIABILITY: The Feeder Bus system has been very successful and will continue to expand to provide anticipated demands during the 1996 Olympics.

3) New Jersey Transit (NJT)
Bus Operations Inc.
1 Penn Plaza
Newark, New Jersey 07105

SOURCE: Interview with Steve Lax, N.J. Transit Planner
Outcommuting From the Inner Ring, Final Report, 1989

STARTED: Transit services have been operating for many years. The New Jersey Business Transit Alliance was formed in 1987.

PURPOSE: New Jersey Transit serves the transit needs of New Jersey residents and employers with bus and railroad services. The New Jersey Business Transit Alliance is an organization formed by New Jersey Transit to provide a cooperative environment for New Jersey Transit providers and the state's business community. Three goals of the Alliance include: to assist employers both in identifying their employees' transportation needs and in developing an appropriate response plan; to educate employees about the availability of transportation services; and to enhance communication between New Jersey Transit and businesses.

TARGET: New Jersey employers and residents

INITIAL CONCERNS: Meeting transit needs is an on-going process, but recent concerns have focused on how to address public transit concerns of suburban residents. The transit agency wants to address the change in transportation needs that have resulted from the demographic, social, and economic changes caused by increased numbers of suburban employment centers. The needs of "inner ring" residents were a primary consideration in evaluating prototype transportation services designed to meet emerging needs of employment centers and labor markets in northern and central New Jersey.

PLANNING: Thirteen prototype services, which were provided for varying periods of time, were evaluated to determine their successful elements. It was found that two major factors involved in a successful operation were the commitment of the employer, in both route planning and financial support, and the total travel time and distance for the rider. Bus service planned prior to and in conjunction with a business relocation are more successful in maintaining and building ridership. Cost can be kept low enough to maintain service if unused capacity is activated and route deviations requiring little extra operating time are utilized. The physical layout of many suburban developments hindered or prevented service because of increased running time, inconvenience to riders, and safety considerations. The Business-Transit Alliance has used the information from the prototype projects to assist businesses in meeting their transportation needs and in making efficient use of transportation resources. Transit Chek (This is used by major transportation providers throughout the New York City-New Jersey metropolitan area.) was developed to enable businesses to contribute the maximum tax-deductible amount ($21) toward their employees' transportation costs. New Jersey Transit is also attempting to define the contractual and financial relationships necessary for business sponsorship of commuting routes.

FUNDING: New Jersey Transit has a zero budget for new service, which means that any new service must be within the current budget. NJT has an average fare box recovery rate of 65%, fully allocated. The direct cost of $41/hour, not including overtime, is covered systemwide. Indirect and support service costs are funded by government subsidy. New service is usually requested

by employers who subsidize the difference between their fare box return and the actual cost of the service. After the initial request of service is studied, a price is quoted for the cost of the service. Employers often guarantee this cost basis by buying monthly passes for employees. Often developers contribute to attract tenants.

ELIGIBLE GRANTEES: Private transportation providers are under contract to NJT in some areas, as a part of the overall service provision, to provide needed transit services or to link local service with NJT routes. Subsidized services have been grandfathered because they were providing necessary service, but could not continue economically without subsidy. Their losses are guaranteed, but they are not allowed to make profits beyond their salaries. Contract carriers are awarded routes based on route package proposals prepared by NJT. Their profit is based on the amount of their bid because NJT receives all the revenues. NJT unions can negotiate with management to bid for the route packages, but UMTA encourages the use of subcontractors. The packaged routes are usually far from existing NJT garages.

OPERATION: NJT handles transit only. It consists of both railroad and bus services, which are coordinated with other providers and with available railroad tracks. They look at demand, not the economic status of the user, and try to keep up with demand rather than establish specific routes. Other agencies, which take care of social services, provide discount passes to Project Reach recipients involved in job training. NJT communicates frequently with businesses through the Business Transit Alliance to address changing transit needs and to promote its service to employees.

RESULTS: NJT has numerous reverse commute projects, many with headways of 8, 10, and 20 minutes. NJT has responded to needs expressed by employers by seeking to solve the transit problems while staying within NJT's budget. A cooperative relationship with area businesses allows NJT to aid businesses in solving their transit needs and to serve the inner ring residents seeking suburban jobs. The use of Transit Cheks allows employers to subsidize fares for workers. There is strong political support for NJT services.

PROBLEMS: It is difficult to meet all the expressed transit needs and still remain within the budget. It is also difficult to promote new routes to CBD employees until they actually see the bus in service for a while. Inner ring workers often have long commutes, with 1 1/2 hours not uncommon. Since this is also an early market, the first service begins at 4:30 a.m., which is essential to meet some of the connections to suburban locations.

ENDEMIC PROBLEMS: The recession has reduced transit usage by approximately 10%. NJT must cater both to the upscale market of New York and Philadelphia riders who ride to avoid parking problems and congestion and to the market of the inner ring which is more transit-dependent.

NEEDED CHANGES: A better system of financial and contractual accountability is being developed to facilitate serving the requested transit needs of employers.

SUCCESS: NJT has numerous successful reverse commute routes, and it continues to develop new ones to meet changing requirements of area employment centers. The predominant commuter flow is still into the inner cities, and there is an extensive bus network within them. NJT has strong business and political support for its services.

VIABILITY: NJT's problem-solving approach to providing transportation, its cooperative arrangement with businesses and politicians, and its attention to budget constraints will enable it to adjust to changing needs and economic conditions. However, a major budget crisis is anticipated because of political pressures to initiate tax cuts, which may create a need to cut services in the future.

4) Metropolitan Suburban Bus Authority (MSBA)
700 Commercial Ave.
Garden City, NewYork 11530
516/542-0100, FAX: 516/542-1428 or 794-8670

SOURCE: Interview with Millicent Herrera, Service Planning Project Manager

STARTED: MSBA has operated many of the same routes since 1973, but the ridership has changed in the 1980s to reflect increasing use by reverse commuters.

PURPOSE: To provide bus transportation in Nassau County

TARGET: Nassau County residents and commuters to Queens, Long Island, and Suffolk County

INITIAL CONCERNS: Initially MSBA's largest ridership fed into the subways going into Queens, but during the 1980s many of these same routes began to fill up in the reverse commute direction as light industrial and service jobs developed east of the CBD.

PLANNING: MSBA is a subsidiary of MTA (Metropolitan Transit Authority). MTA sets policy, but Nassau County operates the system. Nassau County has a lease agreement with MTA for the purchase of busses. MTA coordinates routes of all subsidiary transportation services. The reverse commutes were not actively developed, but ridership in the reverse direction has increased with new employment opportunities.

FUNDING: Nassau County and fare box receipts provide funding. MTA does not provide any operating or capital money. Nassau County applies directly to UMTA for funds for capital purchases or other large expenses, such as the construction of a new terminal. MSBA has oversight over the use of funds that effect its operation.

ELIGIBLE GRANTEES: NA

OPERATION: MSBA operates a 305 fleet of 35-40 foot buses on 49 routes. These routes are coordinated with other transportation providers such as Long Island Railroad. Reverse commute ridership, and all other ridership, is currently down, but it comprises approximately 50-60% of MSBA service. The longest reverse commutes are approximately one hour. The majority of MSBA riders are transit-dependent: elderly, disabled, low-income. Special rates are offered for the elderly, disabled, and students. Transit Chek, which is available from employers, is a means of subsidizing transportation for low-income workers. Social service agencies give vouchers or tokens to clients.

RESULTS: The system is successful in serving its market. Since MSBA recognizes that some areas which cannot be served by large busses may be served by smaller busses or vans, it is studying the possibility using smaller busses for some unserved areas. A demonstration route, the shopper special, using a smaller bus, is currently in operation. Another demonstration project is a feeder route from Long Island Railroad trains to Route 110 Long Island employment centers.

PROBLEMS: Increased funding is always needed. Fares have increased twice in the last three years, lowering ridership, but the increases are necessary to cover increased expenses. Ridership is also lower because of the poor economic conditions.

ENDEMIC PROBLEMS: The recession has reduced ridership, but job growth is expected in Nassau County when the economy improves. A proposed HOV lane is opposed by residents because of their strong automobile orientation, but it would improve service and also allow expansion of service to include options such as subscription and contract service.

NEEDED CHANGES: MSBA will continue to explore ways to expand and improve service by funding demonstration routes. Air quality regulations which require employers to encourage alternative transportation could increase transit ridership. For example, Oyster Bay, on NE Long Island, passed an ordinance aimed at reducing single-passenger auto use. Also, the deductible amount employers can contribute to Transit Chek needs to be increased.

SUCCESS: MSBA has a strong transit ridership with a large reverse commute component. (All service going from west to east is considered reverse commute.) The reverse commute ridership is expected to increase because of employment centers developing on Long Island.

VIABILITY: MSBA is meeting current transportation demands and continually explores ways to improve service.

5) Southeastern Pennsylvania Transportation Authority (SEPTA) 200 Series Routes
Philadelphia, Pennsylvania
215/580-7843, FAX: 215/580-7590

SOURCE: Richard DiLullo, Director of Public Relations and Marketing

STARTED: 1987

TARGET: All Philadelphia area residents who live near existing railroad stations are potential clients, but service is primarily marketed toward low-skilled city residents seeking suburban jobs.

INITIAL CONCERNS: Since SEPTA wanted to provide affordable transportation, they sought employer subsidization of part of the service cost and assistance in marketing to their employees. Inexpensive transfers ($.50) from trains to buses were available to individual ticket purchasers with free transfers provided for train pass holders.

PLANNING: Employers requested SEPTA help to get low-skilled workers to suburban employment centers that were not served by transportation. SEPTA has railroad and bus routes that serve southeastern Pennsylvania, including Philadelphia and four surrounding counties. The 200 series routes are designed to accommodate commuters going from the city to the suburbs by providing bus service from train stations to large suburban employment centers.

FUNDING: SEPTA receives public financing to supplement fare box revenues. Some routes are partially supported by employer contributions.

ELIGIBLE GRANTEES: NA

OPERATION: The 200 Series service uses a combination of rail and bus service to enable workers to reach suburban employment centers that are located near railroad stations. The rail system, which operates in the reverse direction of the peak flow, is complemented by bus service that meets arriving trains. Although bus service varies with the train route, most trains are met during peak morning and afternoon travel times. The service operates throughout the day on a reduced schedule to accommodate job interviews and shift changes. Inexpensive transfers reduce the costs for riders.

RESULTS: Some routes are more successful than others. The most successful routes have been subsidized initially by employment centers and employers, who have also marketed the service to their employees. Some of these have achieved ridership levels that make them self-sustaining. In areas where businesses are not supportive of SEPTA service, the service tends to be under-utilized, and the lack of subsidization makes it difficult to continue the routes.

PROBLEMS: It is too expensive to market the 200 Series service throughout the Metro area because the targeted riders are low-skilled workers who live in discrete areas of Philadelphia. It is necessary to identify where they live and to advertise in those areas. This is successful when there is a good local newspaper. Employer help in marketing is also essential, especially since television advertising is too expensive. Some neighborhoods object to busses passing through their area. Although it is never mentioned, covert racism may be a factor in some objections.

ENDEMIC PROBLEMS: Ridership is down due to the depressed state of the economy, but the Philadelphia area has a good mix of jobs which will prevent the economy from slipping too much.

NEEDED CHANGES: More businesses need to recognize the vital role public transportation plays in the success of their business. Businesses need to be willing to subsidize experimental routes and aid SEPTA in marketing to potential riders. Employment counselors could give route schedules to job applicants.

SUCCESS: The success of the 200 Series routes has demonstrated the part public transportation plays in supporting business. It functions to bring employers and employees together regardless of their distince locations. It also gives substance to their new slogan, "Public Transit Means Business in Pennsylvania".

VIABILITY: The new routes have demonstrated their effectiveness in providing a link between employers and employees, which is good for business. This helps build political support for SEPTA experimental routes.

6) Brazos Transit System (BTS)
504 East 27th Street
Bryan, Texas 77803-4025
409/779-7443, FAX: 409/822-7758

SOURCE: Interview with Dale Marsico, Chief Administrator
Promotional literature

STARTED:

PURPOSE: Brazos Transit System's goal is to provide transportation service to people of rural counties in the vicinity of Houston at the most reasonable cost. BTS tries to provide for the unique transportation needs of different companies and organizations by offering a variety of contract and subscription services.

TARGET: Residents of Bryan and neighboring communities

INITIAL CONCERNS: BTS caters to transportation needs of rural communities in the vicinity of Bryan, Texas by providing general public transportation, contract transportation, and specialized transportation services. BTS express service to certain Houston locations includes reverse commute service for service employees. Other shuttle services provided by BTS include transportation to Texas A&M University, Huntsville prisons, Nacogdoches, Navasota, and Dibol.

PLANNING: BTS is a public agency that attempts to meet the transportation needs of a widely scattered clientele. Routes are established based on demand for services.

FUNDING: BTS is a publicly funded transportation service. Most services break even, based on operating expenses and billable hours. Contract services are designed to pay for themselves.

ELIGIBLE GRANTEES: NA

OPERATION: BTS operates as a fixed-route bus service which also includes subscription and contract services. BTS attempts to serve transportation needs of several rural communities.

RESULTS: The reverse commute type routes include the Woodlands Express from Houston, Lufkin to Dibol, and the Huntsville prison routes.

PROBLEMS: Many changes are mandated by political necessity, such as the use of alternative fuels. However, Mr. Marisco sees them as an opportunity to improve efficiency and create additional public support for transportation services.

ENDEMIC PROBLEMS: Laws requiring welfare recipients to work need to allow for the provision of some transportation expenses based on the reduced support payments. Changes in tax laws are necessary to allow greater tax deductibility for employee transportation subsidies. Coordination of welfare services with transportation routes would allow clients easier access.

NEEDED CHANGES: Providing equal access to transportation is essential; serving the transit-dependent must be a priority. Mixing modes of travel, including various size busses and vans, needs to be encouraged.

SUCCESS: BTS has been successful in providing a variety of services to a large area.

VIABILITY: BTS is meeting current transportation demands and continually investigates new requests for service.

7) Mass Transit Administration (MTA), Maryland Department of Transportation

SOURCE: Interview with Rob Klein, MTA Principal Service Planner, newspaper articles, Access to Jobs: A Public Transit Agency's Initiative For Privately Operated Service

STARTED: In 1988, planning for Access to Jobs began as a result of being asked to be a grant sponsor for an UMTA ESP grant. MTA wanted to make the opportunities for transit development grants available to many providers. The result was Access to Jobs. Money became available in 1990.

PURPOSE: The plan was designed to enable customized transit services provided by private operators, and for suburban employers, to develop through MTA grant sponsorship.

TARGET: Private operators and employers

INITIAL CONCERNS: MTA wanted to provide uniform and fair access to UMTA ESP grant money by setting up a procedure for MTA to be the sponsoring organization for all qualified providers. MTA also wanted to prove that a push for private transit routes is not an attempt to dismantle public transit and does not effect the public good or efficiency.

PLANNING: MTA devised a Baltimore area "entrepreneurial services challenge grant" program known as Access to Jobs designed to allow providers access to both ESP grant money and to a sponsoring agency. This is a Grant and Aid program in which providers present their ideas and plans for possible funding. Since the intent is for providers to become self-sufficient within two years, providers must have a business plan and show promise of financial success. A per-mile reimbursement for capital depreciation of vehicles and for marketing activities was provided. Accountability measures designed to keep less qualified operators out of the program include paying providers for services rendered rather than giving lump sum payments in advance. The initiative for entering the program was to remain with employers and providers, but MTA would provide needs assessment and other assistance as well as maintain a list of qualified providers. MTA would also initiate an outreach to suburban employers to interest them in the project. The Advisory Committee would assist in contacting employers and provide ideas and expertise for the program. Goals of the program and all participants must be clearly articulated to enable them to be achieved. All providers must have equal opportunities within the program. The application process was simplified, where possible, as long as financial and business plans were clearly articulated. The necessity for maintaining flexibility and for making judgment calls was recognized.

FUNDING: Main funding comes from an UMTA three-year grant to demonstrate the feasibility of a regionally managed program. The state provides a matching $150,000 and providers contribute $125,000 in capital funding for a total funding of $675,000.

ELIGIBLE GRANTEES: Service providers are eligible when they have completed the application process, satisfied the UMTA requirements, have a satisfactory safety record, receive Public Service Commission approval, do not compete with MTA service, and have a plan which shows promise of financial success within two years.

OPERATION: Financial assistance is given each month for the previous month's service at a fixed rate for mileage based on the type of vehicle. Providers are responsible for finding their own business, but MTA's outreach program is designed to inform employers of the benefits of the

program and to circulate the list of approved providers to interested employers. MTA also provides technical information such as surveys and needs assessment for employers and providers who ask for assistance.

RESULTS: Yellow Transportation Service began the first Access to Jobs Service in December 1990 with one van serving T. Rowe Price, Inc. It only lasted three months because the employer initiated the service to ease the transition to a new location and was unwilling to pay the subsidy after the initial period. The program has not worked well. The economy has also made it difficult. Since employers have no difficulty finding employees, they do not want to subsidize service.

PROBLEMS: Repeated follow-up is needed to providers and employers. Coordination and cooperation with Maryland Public Service Commission is necessary. Employers do not consider transportation difficulties of employees when they relocate. Restrictions on the use of different types of grant money complicates accounting and running the program. A means must be found to maintain the interest of the advisory committee after the start-up phase. Provider accountability measures keep less qualified operators away. All providers must have equal opportunities. Goals must be clearly communicated.

ENDEMIC PROBLEMS: In a poor economy, employers don't need to recruit transit-dependent workers. Labor unions have too much power over public transportation alternatives. Reluctance to become involved in government subsidy programs because of the real or perceived strings attached discourages some potential providers. Failure to include externalities in computing transportation costs lead to subsidization of the automobile. Employers must be educated to accept responsiblity for transit-dependent employees.

NEEDED CHANGES: Employers' attitudes need to change to reflect the fact that it is in their best interests to aid MTA in providing transportation for their employees. A more rational approach to jobs and transportation would include the costs of externalities in assessing various transportation alternatives. Increased employer-deductible expense for employee transportation needs to be in line with the expense of parking spaces. UMTA needs to modify requirements and liberalize some, for example, give more money for the initial period, extend the grant period beyond two years, and match employer contributions.

SUCCESS: The program has not been tested yet, but the structure is in place and contacts are being made which will position it for success when the economy rebounds.

VIABILITY: This is a demonstration project designed to show the feasibility of a regional approach to coordination of alternative transportation providers. The program will be in place when the economy picks up and employers need entry-level workers without transportation.

8) Sun Tran, Routes 105 and 16

SOURCE: Dan Hibbert, Transportation Planning, City of Tucson
Marian Slavan, Pima Association of Governments
Jim Glock, Transportation Planning, DOT
Newspaper articles, promotional literature

STARTED: June 1991

PURPOSE: To open northside job opportunities to southside residents, to aid employers in attracting workers, and to improve air quality

TARGET: Large northside employers, low-skilled southside residents, residents of northwest corridor

INITIAL CONCERNS: The goals include: to improve public transportation access to northside employment centers, to improve air quality, and to aid travel reduction goals.

PLANNING: Arizona Department of Transportation, Pima Association of Governments, Sun Tran, City of Tucson, and large northside employers developed a plan to extend two bus routes, 16 and 105, to service Garret AiResearch and northside resorts. The service was designed to improve employment opportunities by providing transportation to large employers previously unserved by public transportation. It was also designed to promote alternative transportation and to improve air quality.

FUNDING: Part of a $200,000 Department of Transportation Demonstration Grant provided funds to improve air quality by promoting non-automobile transportation. After the grant ends on June 30, 1992, the service must be locally funded.

ELIGIBLE GRANTEES: NA

OPERATION: Sun Tran Routes 16 and 105 Express are extended on weekdays to go to AiResearch and to stop at Tucson Mall and foothills resorts. Ventana Canyon operates a shuttle to the bus stop. Route 105 operates seven days a week.

RESULTS: Route 105 is not doing as well as expected. The final goal of 235 people daily is not being met. (An average of 33 passenger trips per day have resulted.) The demand is not strong enough to maintain the demonstration service. They are considering re-routing the service to improve ridership.

Route 16, however, is exceeding its goals, but it is not a true reverse commute route. Most riders begin their trip in the northwest part of the city and transfer to the continuation route to Oro Valley and AiResearch. This route has strong support from upper level management at AiResearch, which subsidizes bus passes and provides additional employee incentives for ridership. The workforce has a regular 8-5 schedule, is motivated, and supportive of alternative transportation ideas.

PROBLEMS: Route 105 was publicized through the resorts and newspapers, but the ridership did not materialize. Possible causes could include the effect of off-peak season on the hiring

requirements of the resorts and the tight economy. Ridership needs to be increased on the 105 route for it to continue as presently designed. Re-routing may offer improved ridership.

ENDEMIC PROBLEMS: Disincentives which exist for a reverse commute project in Tucson involve the way land use effects transit use. The long commutes to dispersed locations are difficult for public transit to accommodate. Seasonal variability in the tourism economy and in the economy also effects ridership.

NEEDED CHANGES: Review of passenger origins and destinations may offer insights into routing changes.

SUCCESS: Route 16 has been a success. Route 105 is being evaluated.

VIABILITY: Route 16 to AiResearch is selling 70-90 bus passes each month, but, again, is not a reverse commute route. Route 105 is not showing as much ridership as expected. This may be due to the economy, off-peak seasonal hiring, and the reduced occupancy rate of the resorts. A subscription bus service similar to the current service Sun Tran runs for Hughes Aircraft Company might be a more viable option for the outlying resorts. Sun Tran runs several routes to Hughes which are available only to Hughes employees. The employees purchase passes subsidized by Hughes. Although the routes are not completely self-supporting, the ridership and level of subsidy is in keeping with transit goals.

9) Central Transit Service
Orlando, Florida
407/677-4433

SOURCE: Interview with Ms. Lee
Missing facts were supplied by Farkas paper.

STARTED: 1990

PURPOSE: To meet transportation needs of Orlando employers and serve low-income employees

TARGET: Unserved transportation niches, low-income riders

INITIAL CONCERNS: To provide a shuttle service for large employers, to incorporate a job placement component to the service to insure a supply of riders, and to market services to employers

PLANNING: Ms. Lee researched local employers to establish a need. She contacted job placement agencies to create a steady supply of riders and investigated the locations of low-income neighborhoods and their transportation services. She also attended UMTA informational meetings and training sessions (Farkas).

FUNDING: Employer subsidy of fares, passenger fares, UMTA ESP grant

ELIGIBLE GRANTEES: NA

OPERATION: Ms. Lee initially spent a large part of her time marketing her services to employers and social service agencies. Now she concentrates on providing transportation, and she does not actively try to create job placement in low-income communities because of the high turn-over rate and the need for job placement skills. She now provides transportation for social service agencies, governmental agencies, and employers. They provide job training, placement, transportation, literacy skills, and on-the-job training which are targeted to people with low incomes.

RESULTS: The service has been able to expand and to serve the needs of large employers outside of Orlando, especially resorts and the hospitality industry. They are currently initiating service for disabled Orlando residents.

PROBLEMS: It is difficult to sustain reverse commute service because entry-level workers often quit their jobs after 2-3 weeks. The initial service that targeted this market took too much of her time because of the job placement and employer marketing required. She now contracts with agencies to provide service.

ENDEMIC PROBLEMS: People with low incomes, mainly from housing projects, that take these entry-level jobs often quit after a short time on the job. Most are single, with 2 or 3 children. They cannot work for $5-6/hour (average pay is $5.50) because their insurance and day care costs increase and their government benefits, such as rent subsidies and medical care, decrease. People with more kids get more government money. Getting a job does not substantially improve their economic condition. This situation must be addressed at the federal level. The quality of their lives must improve when they work, in order to encourage them to take and keep jobs. The

federal government can address this issue by continuing to subsidize their cost of living for a period of time after they become employed. Orlando is a tourist town and the hospitality industry traditionally has low wages and high turn-over. There is little other industry in town to provide higher paying jobs.

NEEDED CHANGES: Services are evolving to reflect the needs of government and social service agencies that contract for service. New reverse commute routes are not being developed until the services for the disabled are operational. Employers who are willing to subsidize over half of the transportation costs will continue to be served.

SUCCESS: Central Transit has been successful from the start because it has been able to keep expenses low and it started small. Ms. Lee is an enthusiastic marketer of the business. This has paid off in contracts that provide employer subsidy for employee fares, contracts with social service and government agencies, and continual expansion of services to meet the needs that are presented.

VIABILITY: The business is doing well and expanding. The majority of expenses are paid by employers and contracts with various agencies. Ms. Lee is active on local boards, and is continually increasing her visibility and her contacts.

APPENDIX B

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METRIC CONVERSION FACTORS

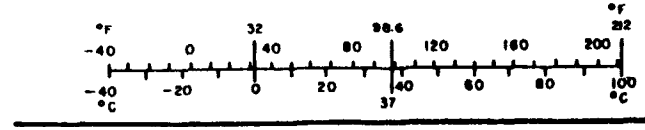
Approximate Conversions to Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
	LENGTH			
in	inches	*2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
	AREA			
in^2	square inches	6.5	square centimeters	cm^2
ft^2	square feet	0.09	square meters	m^2
yd^2	square yards	0.8	square meters	m^2
mi^2	square miles	2.6	square kilometers	km^2
	acres	0.4	hectares	ha
	MASS (weight)			
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
	VOLUME			
tsp	teaspoons	5	milliliters	ml
Tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft^3	cubic feet	0.03	cubic meters	m^3
yd^3	cubic yards	0.76	cubic meters	m^3
	TEMPERATURE (exact)			
°F	Fahrenheit temperature	5 9 (after subtracting 32)	Celsius temperature	°C

*1 in = 2.54 (exactly). For other exact conversions and more detailed tables, see NBS Misc. Publ. 286, Units of Weights and Measures, Price $2.25, SD Catalog No. C13.10:286.

Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
	LENGTH			
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
	AREA			
cm^2	square centimeters	0.16	square inches	in^2
m^2	square meters	1.2	square yards	yd^2
km^2	square kilometers	0.4	square miles	mi^2
ha	hectares (10,000 m^2)	2.5	acres	
	MASS (weight)			
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
	VOLUME			
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m^3	cubic meters	35	cubic feet	ft^3
m^3	cubic meters	1.3	cubic yards	yd^3
	TEMPERATURE (exact)			
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F



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