New York Region Area-Wide Job Access and Reverse Commute Transportation Plan

August 30, 2001

Prepared for:

New York Metropolitan Transportation Council

Prepared by:

Regional Plan Association
Abeles Phillips Preiss & Shapiro
Cambridge Systematics, Inc.

New York Region Area-Wide
Job Access and Reverse Commute Transportation Plan

Table of Contents

I. BACKGROUND AND INTRODUCTION

The Job Access and Reverse Commute Grant Program was established by Congress with the enactment of the Transportation Equity Act for the 21st Century, also known as "TEA-21." The legislation authorizes the Federal Transit Administration (FTA) to administer the program to achieve the following goals:

- to provide transportation services in urban, suburban and rural areas to assist welfare recipients and other low-income individuals in accessing employment opportunities, and

- to increase collaboration among regional transportation providers, human service agencies and related service providers, employers, metropolitan planning organizations (MPOs), states, and affected communities and individuals.

The program provides funding through a competitive grant process to achieve these goals, but stipulates that all funded projects be derived from an Area-Wide Job Access and Reverse Commute Transportation Plan (hereafter referred to as the Area-Wide Plan). In the New York Region, the development of an Area-Wide Plan is the responsibility of the New York Metropolitan Transportation Council (NYMTC). NYMTC is an association of governments and transportation providers that serves as the metropolitan planning organization for New York City, suburban Long Island and the lower Hudson Valley. NYMTC's mission is to serve as the collaborative forum where transportation issues are analyzed, discussed and decided.

As an MPO, NYMTC is well positioned to convene an integrated, regional planning process for the Job Access program. This was accomplished by organizing an ad-hoc Access-to-Jobs Planning Group in the fall of 1998. NYMTC members identified appropriate representatives in their organizations for the Planning Group, as well as representatives of relevant social service, human service and/or employment agencies and organizations in their areas. NYMTC staff invited relevant Federal and state agency representatives in the areas of transportation, human services and employment. State-level participants have included agencies mainly from New York State, but also relevant representatives from New Jersey and Connecticut agencies. Participation was not limited to public agencies. Representatives of community groups and non-profit organizations were also invited and have participated.

The resulting Planning Group is a diverse network of interests and disciplines at multiple levels which serves as a key forum for policy and planning advice for the Job Access Program. Since its inception in 1998, the Planning Group has provided invaluable assistance in the interpretation of relevant Federal and state programs and regulations; as an advisory body and network resource for the administration of the FTA Job Access grant program; in the development of an integrated Scope of Work for the formulation of

this Area-wide Plan; and as an overall advisory body for the development of the planning process.

In addition to the FTA's Job Access and Reverse Commute Grant Program, other funding sources are available to address the transportation needs of low-income individuals, including welfare-to-work programs funded through the U.S. Departments of Labor and Health and Human Services, community development programs, and private funding from foundations and employers.

The New York Region's Area-Wide Plan, as specified in FTA guidelines and articulated by NYMTC and the plan's Advisory Committee, is designed to achieve the following objectives:

- to create a comprehensive framework that can be used by grant seekers to guide them in addressing the job access challenges of welfare recipients and other low-income individuals,
- to identify geographic distributions and characteristics of welfare recipients, other individuals with low incomes, employment opportunities, transportation services and employment-related activities,
- to guide the selection of grants to be submitted for funding through the Job Access and Reverse Commute Transportation Program by identifying and prioritizing service needs and opportunities,
- to enhance NYMTC's ongoing activities that provide information on the program and encourage broad participation in the planning process,
- to identify opportunities to address job access challenges through related welfare-to-work, social service and private funding sources, and
- to encourage the development of cooperative relationships across jurisdictional boundaries and among the different constituents and disciplines concerned with welfare-to-work, employment training and transportation service delivery.

To achieve these objectives, the plan has been formatted to inform and guide program choices by transportation and human service providers, rather than to attempt to prescribe actions. This is based on the premise that the development of an Area-Wide Plan and the development and selection of Job Access grants are part of an iterative process. The plan provides information on services, needs and opportunities, as well as evaluations of the potential for different types of service improvements in different parts of the region. This will assist in the development of grant applications by transportation providers, human service agencies and community organizations, as well as establish a framework for evaluating and prioritizing proposed grants. Grant development will also help to update and refine the plan, as service providers enrich the plan's information base with research and analysis that support grant applications.

This approach is appropriate for the Job Access and Reverse Commute Program and the New York Region for a number of reasons. Because of the region's size and complexity, the resources required to fully inventory and evaluate all potential job access and reverse commute service enhancements are well beyond the financial scope of the grant program. In addition, job access planning in the region is a decentralized process involving eight major transportation providers in addition to a wide range of planning agencies, human service providers and other constituents. NYMTC has also given priority to expanding the range of participants in both planning and grant development. The approach also helps to insure that the plan retains flexibility to adapt to new information from service agencies and planning participants, and that it will obtain and maintain the support of these constituents.

The Area-Wide Plan has been developed following an extensive Community Involvement Process that included public meetings in each of ten counties in the NYMTC region, six focus groups, distribution of user and employer surveys, and consultations with the region's major transportation providers. Comments on a draft plan were solicited through an additional round of public meetings. Subsequent revisions were made to the plan in consultation with the Plan's Advisory Committee before being submitted for adoption by NYMTC.

II. SUMMARY OF PLAN REPORTS AND FINDINGS

The planning process for the New York Region's Area-Wide Plan produced a number of reports, technical memoranda and data sources that provide the basis for the plan's recommendations. These products can be found on the Job Access and Reverse Commute page of NYMTC's website (www.nymtc.org/access/reports). The major reports and memoranda include the following:

- An *Access-To-Jobs Inventory Report* that lists the job access activities, programs, data and resources that existed at the beginning of the planning process for the Area-Wide Plan;
- A report on *Labor Market Conditions and Outlook for Entry-Level Jobs and Low-Income Workers*;
- Maps and memoranda documenting the *Spatial Relationships of Jobs, Workers and Employment-Related Services* and the *Work Travel Characteristics of Low-Income Workers;*
- Reports and memoranda documenting the findings of the Community Involvement Process, including a *Report of Comments from the First Round of Public Meetings* and memoranda describing the results of *Surveys* and *Focus Groups*: and
- A *Financial Assessment* that describes the resources available to implement programs and services to improve job access and reverse commuting.

The following sections summarize the major findings of these products.

A. Summary of Access-To-Jobs Inventory Report

With 10 counties, 15 transportation agencies and thousands of social service and community organizations, the NYMTC region presents a particular challenge for identifying every service and resource that is available to help persons with low incomes to find and commute to suitable employment. The region's job access activities must also be put in the context of the larger tri-state metropolitan labor market and the national programs and resources that support job access for low-income constituents. This report provides a summary of the services and information sources that were identified through outreach to regional, county and New York City transportation and planning agencies, members of the Area-Wide Plan Advisory Committee, state and federal agencies, and umbrella organizations for human service providers. A total of 28 organizations were contacted to obtain information on the following:

- Planning activities and proposed service enhancements;
- Reports and data; and
- National program models.

In general, the report states that the Job Access and Reverse Commute (JARC) Program has significantly expanded the scope of planning activities focused specifically on the needs of welfare recipients and low-income workers. Prior to JARC, social service agencies and human services providers dealt with the specific transportation needs of welfare recipients. Traditional transportation agencies considered the needs of this population along with those of all other users, providing mass transit service in response to overall demand. After Congress enacted JARC in 1998, social service agencies and transportation planners were charged with working together to determine the needs of this specific population and make recommendations for meeting those needs not addressed by existing services.

Planning activities in the region are diverse, but many new partnerships are taking time to solidify. However, there also appears to be a sizable number of new initiatives and many organizations are broadening their scope of services to put greater attention on job access and reverse commuting. In addition, the Access-to-Jobs Planning Group that NYMTC formed following the 1998 legislation has provided a forum for transportation and human service providers to expand their networks and become involved in larger scale planning activities.

Specific planning activities, data sources and information resources are described in the full Inventory Report.

B. Summary of Report on Labor Market Conditions and Outlook for Entry-Level Jobs and Low-Wage Workers

The Job Access and Reverse Commute program is largely concerned with bridging the physical barriers that separate low-income job seekers from employment opportunities. Therefore, the analysis for the Area-Wide Job Access and Reverse Commute Transportation Plan focuses primarily on the geographic relationship between jobs, workers and employment-related services, as well as solutions that address transportation and information services to connect people to jobs. However, both analysis and solutions must be placed in the context of the low-wage labor market. Changes in the supply and demand for entry-level and low-wage workers, as well as changes in the education and skill requirements of jobs, must be understood to devise effective solutions. For example, a new transportation service designed to connect a low-income community to a distant employment center depends on a match between the skill levels of the job seekers and requirements of job openings, as well as on the continued demand for workers from this community.

As part of the analysis for the plan, a *Report on Labor Market Conditions and Outlook for Entry-Level and Low-Wage Workers* was produced to provide a context of current and projected trends in labor supply and demand, skill levels, wage levels and job requirements in the New York Metropolitan Region. The report relies primarily on data and projections from the U.S. Bureau of Labor Statistics (BLS) and the New York State Department of Labor (NYS DOL), as well as on forecasts developed for the New York Metropolitan Transportation Council (NYMTC) by Urbanomics. The separate topics covered by the report include the following:

- the region's labor market in the 1990s;
- forecasts of employment and labor force;
- the outlook for education and skill requirements; and
- the implications for Job Access and Reverse Commute planning.

The major findings of the report include the following:

- The region's economy is increasingly reliant on knowledge-based industries. This economy continues to create large numbers of entry-level jobs, but these are increasingly found in the service sector, rather than in manufacturing industries.

- Many medium-wage jobs that do not require a college degree are being eliminated, making it more difficult to design employment programs that support career development as well as job placement. Improved job access can play a role in enhancing career development by making it easier to reach a wide range of potential job opportunities.

- Several factors point to imbalances in the labor market that could be relieved in part through increases in reverse commutation:

  - Low-wage industries and low-skill occupations account for a larger share of jobs in counties outside New York City, while low-income households are more concentrated within the five boroughs.
  - There continues to be a large differential between unemployment rates in New York City and unemployment rates in suburban counties. To a lesser extent, differences also persist between suburban counties and among municipalities within these counties.
  - County-level forecasts of employment and labor force indicate differing rates of growth could create the potential for increased inter-county work travel. In particular, labor force is projected to grow faster than jobs in Manhattan, Queens and Staten Island, and jobs are forecast to outpace labor force in Rockland, Putnam, Dutchess, Hudson and Fairfield.

- The decline in unemployment rates in the 1990s created countervailing pressures for reverse commutation. The extremely low unemployment rates in many suburban communities created the demand for workers from urban areas. However, lower unemployment rates in cities throughout the region also meant that more workers could find employment closer to home, reducing the pressure for many to commute long distances to work.

- Employment and labor force are expected to continue growing in the next ten years, although at a slower pace than the last half of the 1990s. This is likely to create an increased demand for a wide range of transportation services and markets, including but not limited to job access services for low-income workers and job seekers.

- When categorized by education and skill requirements, the largest number of job openings for the 1997-2007 period are expected to be in jobs that do not require postsecondary education or extensive job training. This is the largest category of job opportunity for New York City as well as for Long Island and the Hudson Valley. Occupations with the largest number of openings include Retail Salespersons, Cashiers, Waiters & Waitresses, Food Service Workers, General Office Clerks, Receptionists, Home Care Aides, Home Health Aides, Nurses Aides and Orderlies, Guards, Janitors & Cleaners, and Helpers, Laborers & Movers.

- The majority of these jobs pay less than $8/hour, but a significant number pay $10/hour or more. Higher paying jobs tend to be office jobs, some health sector occupations, and some building service occupations.

In general, these findings describe a labor market with a strong need for job access and reverse commute services, a need that can be expected to continue as the region's economy continues to expand. However, they also indicate that planning for service enhancements needs to consider the implications of both cyclical and structural changes in the economy. Planning also needs to consider the characteristics of jobs and workers, as well as their location.

C. Summary of Findings from Analysis of Spatial Relationships and Work Travel Characteristics

To help prioritize opportunities to improve job access and reverse commuting, several data sources were analyzed. These data sources, and the analysis conducted, include the following:

- *Mapping of entry-level jobs, low-income households, welfare recipients and transit routes:* Entry-level jobs were estimated using 1999 data from the New York State Department of Labor and 1990 U.S. Census data. Estimates for low-income households in 1999 were obtained from Claritas, Inc. Data on welfare recipients in 1999 were obtained from the New York State Department of Family Assistance. Transit routes were mapped using data from NYMTC's travel network. Data files and maps can be found on the Job Access and Reverse Commute page of NYMTC's website, and county maps of jobs, welfare recipients and transit routes are shown in Appendix I.

- *Analysis of spatial and temporal relationships among entry-level jobs and low-wage workers:* The primary tool for this analysis was a gravity model developed by Cambridge Systematics, Inc. The model compared travel times for low-wage workers between zip codes using the current transit network to estimated travel times on a hypothetical transit network that assumed that all destinations could be reached easily by transit. Documentation of the model and its results, which were used to help identify priority employment markets and target residential areas, are contained in a technical memorandum to NYMTC.

- *An inventory of transportation services:* This inventory included both public and private services available in particular counties and areas, and can be found on the Job Access and Reverse Commute page of NYMTC's website. This inventory, along with an analysis of schedules and service frequencies, were used to help evaluate the potential of service enhancements to improve job access.

- *Analysis of the 1997/1998 Regional Travel Household Interview Survey:* The survey, conducted for NYMTC and the North Jersey Transportation Planning Authority, covered 11,000 households in 28 counties. The survey data was used to compare the commuting characteristics of low-income workers to those of the general population.

- *Location data for childcare providers, job centers and economic development zones:* Available information was obtained from the New York State Departments of Family Assistance and Labor and the Empire State Development Corporation. This data helped to formulate some of the recommendations for region-wide actions.

The data analysis provided a foundation for determining the types of services that might provide the greatest improvement in job access for particular areas. However, the data

sources have certain limitations that need to be kept in mind when interpreting the results. The first is that the smallest geographic units for which data is available from most of these sources are zip codes. This permits an analysis of current and potential commuting patterns between relatively large geographic areas, but not the more fine-grained analysis necessary for route-specific planning. Second, while some of the data records actual counts (job totals, welfare recipients), other data sources rely on estimates (wage distribution, households) or surveys (1997/1998 Travel Survey) that can only approximate actual conditions. Finally, the transportation model used a number of assumptions to obtain the best estimate of hypothetical commuting patterns. As with any model, changing these assumptions would yield different results.

Given these considerations, the analysis was reviewed with planners, transportation providers and employment specialists to evaluate the findings, which were then used in combination with information from the Community Involvement Process to formulate the Plan's recommendations.

Geographic Relationships of Entry-Level Jobs, Low-Income Workers and Employment-Related Services

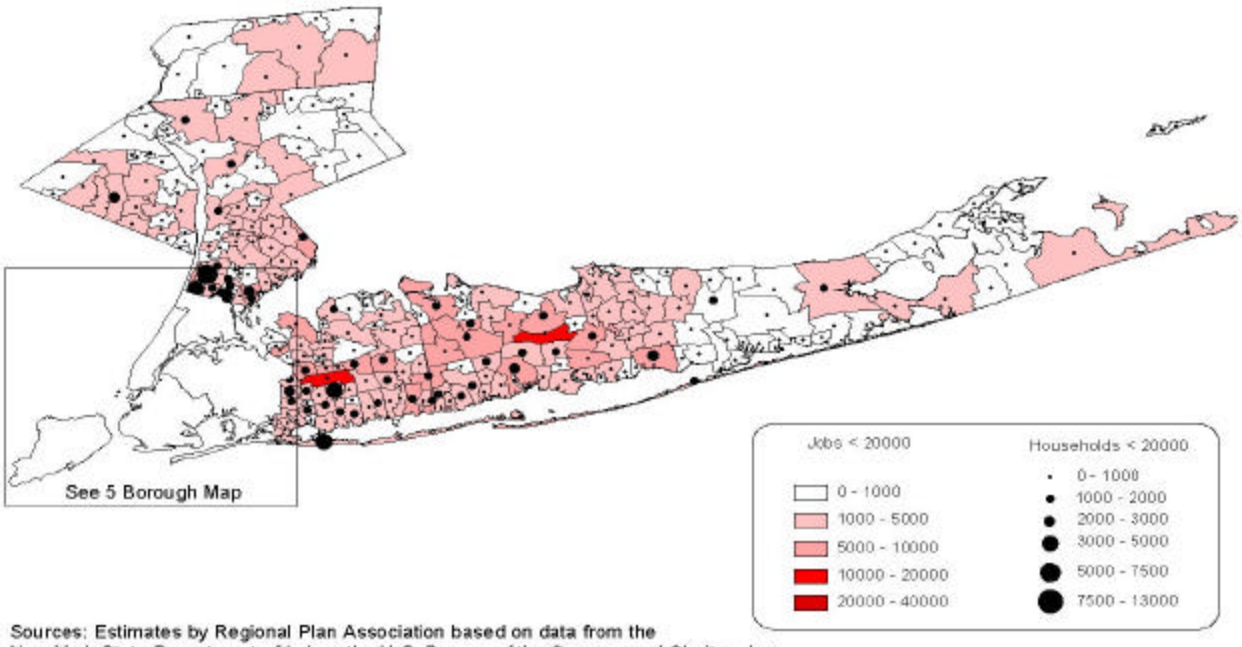
Maps II.1 and II.2 illustrate the distribution of entry-level jobs (defined here as those paying less than $20,000 per year) and low-income households (income from all household members totaling less than $20,000 per year). These definitions were chosen because $20,000 is equivalent to 150% of the poverty line for a family of three (persons with incomes less than 150% of poverty are the prime constituency for the Job Access and Reverse Commute Transportation Program). The maps show that the largest concentrations of both entry-level jobs and low-income households are in urban areas and suburban town centers. However, there are several important differences in the patterns of employment and household location that are relevant to job access and reverse commute planning. These include the following:

- For the ten-county region, approximately 35% of jobs paying less than $20,000 per year are located in outside of New York City, compared to an estimated 25% of households earning less than $20,000 and less than 10% of adult public assistance recipients. This indicates a substantial mismatch between residential locations and the location of job opportunities for low-income workers and welfare-to-work clients in the region's urban core, and an opportunity to address employment goals through reverse commute services.

- Similar geographic mismatches occur within sub-regions and counties, both urban and suburban. For example, Kennedy Airport is one of New York City's largest employment centers outside of Manhattan, but is difficult to reach from most of the city's low-income neighborhoods.

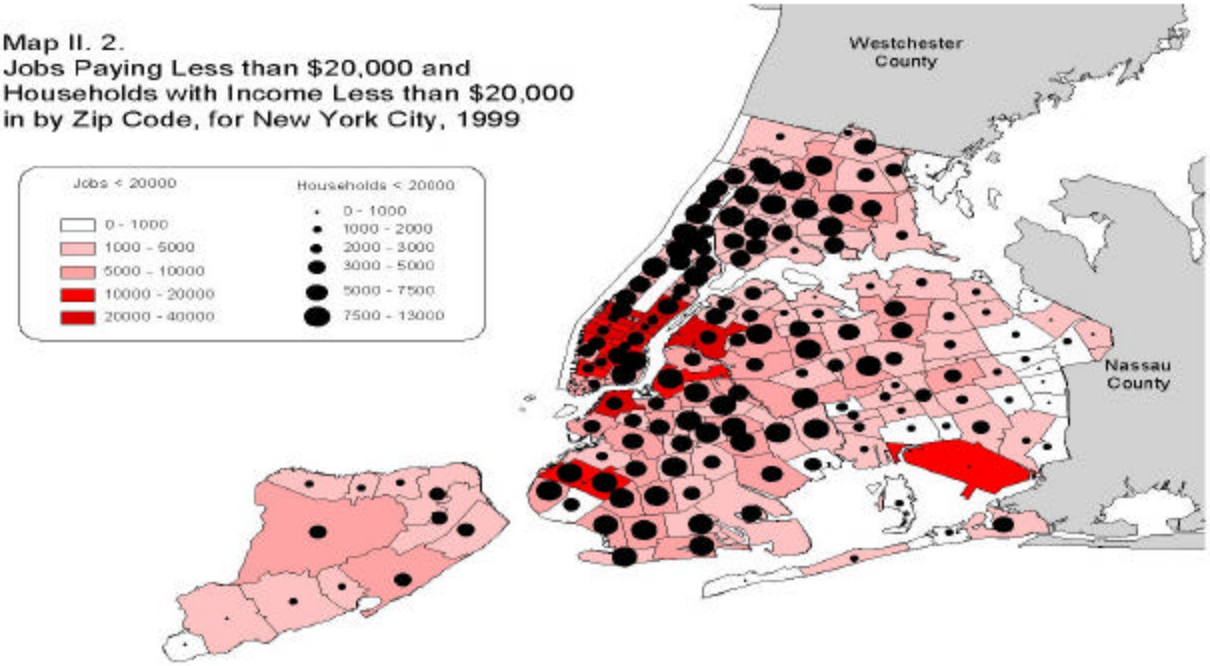
Map II. 1.

Jobs Paying Less than $20,000 and Households with Income Less than $20,000 by Zip Code, in the NYMTC Region, 1999



Sources: Estimates by Regional Plan Association based on data from the New York State Department of Labor, the U.S. Bureau of the Census, and Claritas, Inc.

Map II. 2.
Jobs Paying Less than $20,000 and Households with Income Less than $20,000 in by Zip Code, for New York City, 1999



Sources: Estimates by Regional Plan Association based on data from the New York State Department of Labor, the U.S. Bureau of the Census, and Claritas, Inc.

- In the Hudson Valley, the largest concentrations of low-income households are located in southern Westchester County, but the majority of entry-level jobs are located farther to the north in both Westchester and Rockland Counties.

- Entry-level jobs and low-income households are most dispersed on Long Island. However, there are several large employment centers that have few low-income households.

Development trends also indicate that the geographic mismatch may be growing. Lower density areas, which are generally the farthest from low-income communities, are also likely to be the most rapidly growing parts of the region in terms of both employment and population. Although there has also been substantial growth in urban areas, the trend toward greater dispersion of employment opportunities appears to be continuing.

Geographic mismatches are less important than the time and complexity involved in commuting between locations. Factoring in both the current and potential availability of transportation services, analysis conducted for the plan identified several pairs of residential origins and employment destinations for which transportation enhancements would likely result in increased job opportunities for entry-level workers. This analysis was used to identify priority employment markets and residential target areas as described in Section III.C. However, some general findings should be noted:

- In addition to longer reverse commutes, many of the most promising pairs of origins and destinations that were identified for entry-level jobs involved shorter commutes, often within the same county. The transportation model found some potential for expanding the number of these internal trips in every county, with the largest numbers of potential trips indicated for Suffolk, Queens, Nassau and Westchester.

- The strongest potential for improved job access between counties generally involved contiguous counties, such as Queens-Nassau or Bronx-Westchester.

- In spite of low numbers for both jobs and workers, the transportation model indicated strong potential to improve job access for low-density areas in Suffolk, Westchester, Rockland and Putnam Counties where current transit services have the least coverage and frequency.

The data for employment services was more limited than the data for jobs, households and welfare recipients. The most important of these services is childcare, since working parents requiring childcare outside of the home need to incorporate the transport of their children to the childcare provider into their daily commute. Although there is a wide variation in the ratio of licensed childcare providers to low-income households at both the county and zip code level, it is difficult to draw conclusions about where the availability of childcare service is the greatest obstacle to job access. The capacity of childcare providers varies greatly, from small family providers to large daycare centers.

The cost of different providers is also an important factor, as is their accessibility via public transportation. Obtaining and analyzing this information, some of which would involve additional survey data, would require more in depth research.

Job centers and other providers of training and placement services are another set of employment-related services. In particular, the accessibility of One-Stop Centers that are being developed as part of the state's Workforce Development System are an important component in improving job access, particularly for welfare-to-work clients. There may be some opportunities for improving access to these services. However, since they tend to be located in areas served by public transportation, the greater opportunity is that One-Stop and job centers can be a "hub" for job access services, such as the transportation information and transportation brokerage services described in Section III.A.

Work Travel Characteristics of Low-Income Workers

The primary data source for the work travel characteristics of low-income workers is the 1997/1998 Regional Travel Household Interview Survey. To compare the commuting characteristics of workers at different income levels, the survey data was analyzed for three income groups—workers living in households earning less than $15,000 per year, workers living in households earning $15-25,000 per year, and workers living in households earning more than $25,000 per year. Since households can have more than one worker, household earnings are not the equivalent of individual wage levels (e.g., a household with $20,000 in total earnings could include one earner making $20,000, two earners making $10,000 each, or any number of variations.) However, household earnings are actually the more relevant measure for analyzing the job access needs of low-income workers and job seekers, since the poverty rates used to determine eligibility for job access programs are determined by household income and size.

The three income levels were chosen to differentiate very low-income workers (which include most welfare-to-work clients), higher income workers (who may still be eligible for job access services but could command wage levels that would justify longer commutes), and workers whose incomes are too high to be targeted for job access services. The charts in Appendix II indicate the commuting patterns for workers for three variables—mode of travel, time of travel and total commuting time. Data is shown for worktrips originating in New York City and worktrips originating outside of New York City. Smaller levels of geography, even for counties, would result in sample sizes that are sometimes too small to yield reliable results. Even at this level, there will be some variation between survey measurements and actual behavior.

The major findings from this analysis include the following:

1. *Mode of travel varies considerably by both income and location.* At all income levels, workers in New York City are far more likely to commute using public transit

than workers living outside of New York City. However, variation by income is also substantial:

- In New York City, 55% of work trips by workers in households earning less than $15,000 per year were by public transit (largely subway or bus). This percentage drops to 44% for workers in households with earnings between $15-25,000 and 36% for workers in households earning more than $25,000. Only 13% of workers in the lowest income categories commute by car or motorcycle, far lower than the either of the other two income categories. There is little difference in auto use between the two other categories, but workers in households earning over $25,000 are more likely than workers in the middle category to walk, take a taxi or travel by commuter rail to work.

- Outside of New York City, most workers in all income categories commute by car. However, 14% in households under $15,000 and 11% in households earning $15-25,000 use transit, compared to only 3% in all other households. Also, 8% of the lowest income group travel by taxi to work, compared to 1% and 0% in the other two income categories.

2. *Work times show little variation by either income or location.* About one-fourth of work trips at all income levels, both in and outside of New York City, begin between 7 AM and 10 AM, and a similar percentage begin in the afternoon peak period between 4 PM and 7 PM. Most of the remaining trips are in mid-day between 10 AM and 4 PM. About 10% of trips in New York City and 7% of trips outside of New York City begin in the evening between 7 PM and midnight. All of these trips could be either to or from work. While most afternoon rush hour, and many evening trips, are returning from work, a substantial portion are likely to represent departures for work.

3. *Commuting times vary significantly by income for work trips originating in New York City, but vary little for trips originating outside of the city.* Work trips originating in New York City tend to take longer than those originating outside the city—60% of work trips in NYC take 30 minutes or less compared to 72% outside of the city, and 16% of NYC trips take over an hour, compared to 9% in suburban counties. Variations by income include the following:

   - For trips originating in New York City, 51% of trips from households earning less than $15,000 are less than 30 minutes, compared to 54% for households earning $15-25,000 and 61% for households earning over $25,000. Both of the lower income categories have higher percentages traveling between 46-60 minutes (17% for under $15,000, 16% for $15-25,000 and 11% for over $25,000) and 61-90 minutes (14% for both lower-income groups compared to 10% for households over $25,000). The share of workers traveling over an hour and a half is about 5% for all income categories.

   - Outside of New York City, travel times appear similar for all income groups, and the large majority of all trips take less than 30 minutes. The lowest income group

has a slightly higher percentage of trips at both ends of the scale (74% for trips under 30 minutes and 5% for trips over 91 minutes, compared to 72% and 3%, respectively, for households earning over $25,000).

The reasons for some of the findings are clear, while others are more ambiguous. The differences in the use of transit, cars and other modes of travel are unsurprising. The high use of transit in New York City is the outcome one would expect from the city's extensive transit network. The differences in transit and auto use by income are also to be expected. Auto ownership is correlated with income, and low-income workers are less likely to have access to an automobile for work travel. One finding that stands out is the relatively high percentage of low-income workers commuting by taxi outside of New York City (8%). This implies a large number needing to use a high-cost mode of travel because neither auto nor transit is a viable option for their commute.

The lack of variation in departure times appears to indicate that entry-level jobs are no more likely to have evening and weekend hours than other jobs. In fact, some 24-hour industries, such as health services, require off-peak hours for workers in a broad range of income levels. It is also likely that some 24-hour industries that are predominantly low-wage, such as retail services, are balanced by higher-paying industries, such as trucking or protective services. Another potential explanation is that some employers would be able to stay open longer or hire more entry-level workers if more transportation options were available at off-peak hours.

The data on commuting times indicates that low-wage workers are at least as likely to commute long distances as higher-wage workers. It is quite possible that a detailed analysis that used actual wages and accounted for other variables would find some relationship between higher wages and longer commutes, but there is clearly a relatively large number of low-income workers that are making long commutes. Distance from the Manhattan Central Business District and reliance on transit are two possible explanations for low-income workers having longer commutes than higher income workers in New York City. It is likely that higher-paid NYC residents who work in the CBD live in or near Manhattan than lower-paid CBD workers. Also, with less means to travel by car or taxi, low-income workers have fewer alternatives for reducing their commuting times.

D. Summary of Findings from the Community Involvement Process

The Community Involvement Process (CIP) for the Area-Wide Plan served several purposes: 1) to help identify the needs of the Plan's diverse constituents, 2) to proactively elicit ideas and potential solutions for consideration, 3) to provide ongoing information on the progress of the plan, and 4) to obtain public comments on the recommendations of the draft Area-Wide Plan. The term "community" is used in a broad sense to incorporate anyone with an interest in the outcome of the planning process. This community includes welfare recipients, low-income workers and job seekers, persons with disabilities, employers, business associations, transportation providers, human service organizations, community-based organizations, and others with an interest in job access and reverse commute issues. This large and diverse audience is located throughout a region with 10 counties and over 12 million people.

Scope of the Community Involvement Process

Given the magnitude and diversity of this population, the CIP used a strategic approach to ensure that the process was as inclusive as possible. This approach utilized four different types of communication that were designed both to encourage participation from different types of audience and to obtain different types of information. These four communication media included the following:

1. Public Meetings: A total of 25 public meetings were held. A first round of public meetings included 12 meetings held between June and September 2000. These meetings were designed to provide job access constituents with an opportunity to provide input to the plan's identification of needs and improvement actions, and to help identify employment and transportation markets that have the potential to provide additional opportunities to low-income workers and to employers with entry-level jobs. At least one meeting was held in each of the ten counties, with additional meetings conducted in Suffolk and Rockland at the request of local sponsors. An additional 13 meetings were held in April and May 2001 to obtain comments to the draft Area-Wide Plan. Again, as in the first round, one meeting was held in every county with additional meetings in Rockland, Suffolk and Manhattan at the request of local partners.

2. Surveys: Surveys were distributed through mailings to human service and employer organizations, were made available at public meetings and were posted to NYMTC's website. The surveys were designed to supplement the information obtained during the public meetings by providing an additional means of providing input and by yielding more structured responses to questions concerning job access needs.

3. Focus Groups: Six focus groups were conducted to further the identification and exploration of issues related to the Area-Wide Plan. The target groups were chosen for one of two reasons—either to understand the needs of an important constituency

that was not well represented in public meetings and survey responses, or to learn from a group that has particular expertise related to job access.

4. Web Site: A Job Access and Reverse Commute page was added to NYMTC's web site to provide ongoing information on the status of the plan, to make reports, data and surveys more accessible, and to provide an additional avenue for eliciting public comment.

In addition to these primary components, the CIP also included input from NYMTC's Access-To-Jobs Planning Group, the plan's Advisory Committee and the region's major transportation providers.

Outreach Activities and Participation Levels

The primary goal of this multi-layered approach was to be as comprehensive as possible in terms of geography and types of constituents. However, every county within the region contains diverse communities and areas, and every major constituency group has a large number of groups with distinct interests. In addition, all four elements of the CIP relied on voluntary participation from interested citizens and organizations, and interest varied considerably among different groups. Given these two considerations, it was impossible to obtain input that fully represents the views of all constituents. However, the process provided all interest groups with a chance to participate and obtained a large volume of comments from all counties and major constituency groups. The CIP also provided a rich base of information and ideas that clearly informed the planning process.

Outreach activities consisted of the following:

- Public meetings: Mailings to 10,000 organizations and individuals, public service announcements to local media, postings to NYMTC's website, and targeted outreach from local sponsoring organizations ("local partners")
- Surveys: Distribution through local human service and civic organizations, postings to NYMTC's website, and dissemination through public meeting participants
- Focus groups: Targeted outreach to organizations and individuals identified by the plan's consultant team in consultation with the Advisory Committee
- Website: Mailings and presentations displayed the website address and members of the Advisory Committee and Access-To-Jobs Planning Group were encouraged to disseminate the address.

For all activities, participation varied widely throughout the region. This variation was caused by several factors. First, the level of interest appeared to be higher in some areas and among some groups than others. For example, low-density areas generated some of the highest participation levels in the public meetings and surveys, and a high percentage of these participants identified themselves as persons with disabilities. In urban areas, organizations that work with welfare-to-work clients made up a large

proportion of public meeting and focus group participants. However, it was often difficult to obtain direct input from two of the primary constituencies—employers and welfare recipients.

Second, the role of local partners proved critical to the effort. It was anticipated that these local organizations, through direct contact with their members and clients, would generate much of the interest in the public meetings and surveys. In fact, the involvement of local partners varied considerably. Some provided logistical support only while others actively promoted events, in some cases arranging transportation for people to attend meetings. Participation was clearly enhanced where local partners actively promoted the events.

Mailing lists were also more comprehensive for some areas than others. Lists were compiled from the best available sources identified by the consultant team and the Advisory Committee. Finally, meeting attendance was affected by factors such as weather, meeting location and competing events. Inclement weather clearly reduced attendance at some meetings, and on occasion the site's accessibility was less than ideal.

Given this variation, the three activities were adjusted to complement one another and compensate for gaps in participation levels. These included the following:

- An additional first round public meeting in Rockland County to compensate for poor attendance
- A Queens focus group to compensate for poor attendance at the first public meeting
- Three focus groups targeted to employers and business associations to compensate for low participation in both public meetings and surveys
- An additional second round public meeting in Manhattan to cover both lower and upper Manhattan

The following describes both the level and evenness of participation in each of the CIP's major components. Frequently, areas with that had a small number of participants in one component had a higher number in others. However, based on numbers alone, some places and groups clearly provided more comments than others.

A total of 260 individuals attended the *first round of public meetings*. These individuals covered a wide range of perspectives and backgrounds, including people trying to make the transition from welfare to work, persons with disabilities, working parents, public officials from transportation, social service, planning and employment agencies, representatives of nonprofit human service organizations, community and faith-based organizations, employers and business associations, elected officials and interested citizens. Attendance ranged from a low of 5 at the Queens meeting to a high of 88 at the two Suffolk County meetings. Considering each county's population and poverty concentrations, attendance could be considered relatively high for Rockland and Suffolk (each had two meetings), relatively low for Manhattan, Queens and Westchester, and in the midrange for the other five counties.

A total of 394 individuals submitted *Survey* responses—352 returned forms for Transit Users and 42 returned forms for employers. These responses were highly weighted toward Long Island. Individuals representing themselves as Suffolk County residents submitted 189 User surveys. Nassau County residents submitted 106 User surveys. The only other county with a significant number of User survey responses was Westchester with 36. The small number of employer surveys was similarly weighted toward these three counties. The high response rate in these counties appears to be the result of active distribution, promotion and assistance from local partners and other organizations. Efforts to increase the response rate in other counties by encouraging intermediary organizations to offer similar assistance yielded few additional responses.

A profile of the respondents to the User survey indicates that most were employed (85%), most had relatively low wages (over half earned less than $300/week), and over half received some form of public assistance. Buses were the predominant mode of travel, accounting for at least 46% of respondents, while 21% said that they drove to work. Fifteen percent said that they had a health impairment that makes it difficult to use a train or bus.

Six *focus groups* were used in part to obtain additional input from areas or groups that were not well represented in either the public meetings or the surveys. Since employers were among the least represented groups, three of the groups brought together employers or business associations from different areas. Suburban areas were chosen because suburban employers are the primary targets of reverse commute services, and because New York City business associations advised that it would be difficult to attract a group of interested employers on this topic. However, the New York City Partnership provided their insights and participated in one of the focus groups. Specific employer groups were organized for the Hudson Valley, Long Island, and the East End of Suffolk County.

The other focus groups addressed underrepresented groups on the user side. To redress the low attendance at the Queens public meeting, a session was conducted with the tenant association presidents for New York City Housing Authority projects in Queens. A session for job developers and employment specialists attracted a high turnout from organizations representing New York City clients, which provided insights for a number of constituencies that were not well represented in the public meetings or surveys. The sixth group brought together representatives of home health care workers to address the needs of a substantial and growing low-wage occupation with particular transportation needs. A seventh group for community transportation advocates was also organized. Although attendance was too low to constitute a full focus group, ideas from this session were also incorporated into the plan's information base.

The *second round of public meetings* to review the draft plan had a total of 124 participants. Outreach was similar to that used for the first round of meetings, but attendance was considerably lower. One possible cause is that potential participants

felt that they had already had their input through the first round of meetings. The only county with significantly higher attendance was Queens. Counties with particularly low attendance included Manhattan, the Bronx, Staten Island, Westchester and Rockland.

The number of individuals accessing the Job Access and Reverse Commute page of the *Website* is not known since the site does not record inquiries to individual sections of the site. Based on the source of responses to other outreach activities, it appears that the website was used primarily as a means of monitoring and accessing information by individuals that were already participating in the planning process through other means.

Beyond the number of participants, an emphasis was placed on the quality of communication. Frequently, the number of people attending meetings was less relevant than the knowledge of the participants and the richness of the discussion. Meetings were conducted in an interactive format to encourage a thorough discussion of the issues. Several meetings with relatively few participants often provided a wealth of insights for a broad number of topics. In addition, information obtained from these forums was not considered in a vacuum, but was reviewed with planning and transportation officials and compared to the analysis of available data.

Use and Interpretation of Community Input

The Community Involvement Process was a key component of the process for completing the Area-Wide Plan. Demographic, economic and transportation data and modeling have their limitations for identifying and prioritizing the needs of diverse constituents. Data is not always current or completely accurate, and frequently lacks the detail necessary to model behavior well enough to sufficiently analyze needs and priorities. Direct input from constituents can help to understand current conditions and future possibilities from a broad range of perspectives. It is also the most direct means of determining how important potential actions are to the people who would be most affected by them.

However, the information gathered through the Community Involvement Process also has its own limitations. By its nature, this information is selective and qualitative. Comments need to be weighed by how representative commentators are of all constituents, and by how consistent they are with other sources of information. Two specific caveats for the CIP are particularly important for interpreting the results:

- *Varying participation levels:* Looking at all of CIP activities as a whole, meaningful input was obtained from all counties and major constituencies through at least one of the outreach activities. However, varying participation levels from several groups must be considered in interpreting the results. In both quantity and quality, the process obtained a high level of input from transportation providers, social service agencies and nonprofit human service providers in all parts of the region. It also obtained a large amount of input from low-income job seekers, persons with

disability, community organizations and advocates in most suburban counties, with the exception of Westchester. These groups participated to a moderate degree in the Bronx, Brooklyn, Queens and Upper Manhattan. Participation from these groups was lowest in Lower Manhattan and Staten Island. Employers also participated at a relatively low level, especially in New York City.

- *Selective response to surveys and meeting invitations:* Survey respondents and meeting participants tended to be those with both a strong interest in the outcome and a connection to one of the many organizations involved in the planning process. This is common to most public outreach efforts and an expected outcome of a process that emphasized inclusiveness and voluntary participation. In general, these participants are most knowledgeable on the relevant issues. However, they can also weight the responses to the issues that they are most concerned with. This is less of an issue for public meetings and focus groups, where results are expressed in qualitative terms, than for surveys that present quantitative information. Since the survey responses were so heavily weighted toward low-wage suburban workers, this is the only group for whom the surveys provided meaningful information. Even here, the data needs to be interpreted with caution since the survey was not designed to yield a statistically valid sample.

For these reasons, the Area-Wide Plan uses the information obtained from the CIP to evaluate needs and potential actions, but compares it to other quantitative sources and considers where the process yielded the most complete information. Since the public meetings were the most inclusive and comprehensive component of community input, this source provides the majority of the findings from the CIP. Findings from surveys and focus groups supplement the output of the public meetings, particularly for areas and constituents that had relatively low attendance at these meetings.

Cross-Cutting Findings from the Community Involvement Process

The specific outcomes of the different components of the Community Involvement Process are contained in the following background documents submitted by the consultant team to NYMTC for the Area-Wide Plan: 1) *Report of Comments from the First Round of Public Meetings*, 2) Tabulations of the Transit User and Employer Surveys, and 3) Memorandum summarizing Focus Group findings. Much of the information in these reports is specific to particular areas or constituencies. However, there are also several themes that were repeated throughout the process, and some that appeared to be more of a concern in some types of areas than others. Priorities varied somewhat between urban and suburban counties, and among different constituencies. The following observations illustrate patterns that cut across several or all of the geographic areas and groups that were represented at the meetings.

Importance of transportation relative to other issues

- Transportation barriers were nearly always cited as a major issue for job placement and retention, but were not always the first concern. Limited childcare was often cited as the "Number One Issue", but transportation was usually close behind. A mismatch between required skills and applicant skill levels was rarely mentioned, but this is likely in part because the public meetings focused on the geographic mismatch for entry-level jobs. Both employers and workers in low-density areas with limited transit options were most likely to identify transportation as a leading cause of labor shortages. Those in urban areas were more likely to focus on how transportation limits reverse commute options. Of the 352 respondents who responded to the Transit User Survey, which was heavily weighted toward low-income workers in Nassau and Suffolk, 15% reported that they had at some time lost a job because of transportation problems, and 45% reported that they had, on at least one occasion, been unable to take a job because of transportation problems.

- There was near universal agreement that employers are desperate for workers, particularly in the suburbs, and that improved transportation could significantly ease labor shortages. There was often recognition that it is difficult to sort out the transportation question from other issues, including a generally tighter labor market and the complex problems faced by the long-term unemployed.

- Several groups were identified as having particular transportation issues and that are often "under the radar" of data and public attention. These include home health care workers, agricultural workers and undocumented immigrants. The first because of the particular work structure that demands multiple and varying trips in a single day, the second two because employment data does not always identify them.

- The transportation issues were often intertwined with other issues affecting job access—the ways in which child care complicated and lengthened the commute, the difficulty in learning about job opportunities in distant locations, fear of being stranded in unfamiliar surroundings, language barriers which made complicated commutes more difficult, perceived hostility from residents and employers in different communities. For welfare-to-work clients, the eventual loss of Medicaid, child care subsidies and other safety net features were cited as other factors which made job retention even more difficult for jobs with long commutes.

Priority job access issues

- Three issues were mentioned most frequently and received the most emphasis at public meetings and focus groups:
  - *Hours of service*: Sparse or non-existent transit service to job locations in evening and weekend hours was described as a major impediment by job seekers, employers and employment organizations. This issue was most acute in low-density areas with limited transit service, but it arose frequently in urban

and higher-density suburban areas as well. It was particularly associated with 24-hour industries with high numbers of entry-level jobs, including retail, hotel, airport services and health services. This issue was ranked less highly by survey respondents, 8.5% of whom stated that "the system doesn't run when I need to use it" as the biggest problem with the transit system (third highest response to the 11 options offered).

- *Cost*: For many, this was the most critical transportation barrier, particularly when a trip involved multiple fares. It was cited most often in urban counties and among those concerned with welfare-to-work issues. It was also one reason why commuter railroads were generally downplayed as a potential reverse commute option. This was an especially strong concern expressed in the focus group of job developers and employment specialists. However, only 5% of the largely suburban respondents to the Transit Users Surveys cited this as their biggest problem with the transit system.
- *Trip-chaining*: The need for multiple stops during the work commute, generally for child care but sometimes for medical treatment or other purposes, was frequently articulated as a major impediment, particularly in areas where transit service was too infrequent to make multiple stops feasible.

- Service frequency and reliability received nearly as much attention as the first three issues, particularly among certain constituencies—persons with disability who rely on paratransit services, residents of low-income areas who felt that the quality of service lagged more affluent areas, and employers who depended on employee punctuality. In the User Surveys, infrequent service was cited most frequently (by 24% of respondents) as the biggest problem with transit service. The next most common response—no stops near their residence—was cited by 12%.

- For some job seekers and job developers, information about the location of job opportunities, and the willingness of employers to hire workers from unfamiliar areas, were more important than transportation. Participants seemed to have a general awareness of job opportunities and transportation links to adjacent counties (e.g., Bronx-Westchester, Nassau-Suffolk), but not to more distant, but potentially reachable locations (e.g., Brooklyn-Nassau). Specific knowledge of job locations and alternative routes varied.

- In many cases, commuting times to the best sources of job opportunities were seen as too long to be feasible. These trips were generally inter-county trips (e.g., Nassau-Suffolk, Bronx-Queens). Sometimes, however, they were intra-county trips affected by geography and transit frequency (e.g., East End of Suffolk) or by traffic congestion (Yonkers to White Plains). There was no consensus on what constituted an acceptable commute. Many put the upper limit around 60 minutes for jobs paying at least $10-12 per hour. Others focused on lower-paying jobs with shorter commutes, while some said 90 minutes was the maximum feasible commute. Seven percent of survey respondents cited the length of the commute as the biggest

problem with the transit system. Over a quarter of the respondents reported commuting times of more than an hour, while 11% reported commuting more than 90 minutes.

- Service coordination between different systems was frequently cited as a cause of lengthy and unreliable commutes. This included bus service from commuter rail stations and transfers between bus systems in different counties.

- Other issues cited with relative frequency included safety when waiting at isolated bus stops at night, insufficient wage levels to make up for all of the disadvantages of working outside of the neighborhood, cultural differences with employers, and difficulty in using some facilities for persons with disabilities.

Opportunities for Service Enhancements

- There was strong interest in how the Job Access and Reverse Commute grant program could address these issues, although this was often accompanied by an acknowledgement that the available dollars are limited and that additional resources are needed from other sources.

- In many instances, there appeared to be a developing working relationship between transportation and social service agencies on welfare-to-work issues. However, there still appeared to be a need for more information sharing and coordinated planning among these agencies, employers and nonprofit human service agencies.

- While there was clearly pervasive interest in enhanced fixed-route services, many specific ideas were focused on the potential for demand response services. Specific proposals included the provision of van service in low-density areas, mobilizing faith-based institutions to use their vans for work trips, and trying to make informal jitney services safe and reliable. Feeder services, such as employer-provided shuttles from transit hubs to job centers, were also suggested frequently.

- Suggestions to reduce travel costs generally related to one of three themes—employer subsidies that would make costly commutes feasible, a regional MetroCard that would allow for free transfers between different systems, and longer-term subsidies for welfare-to-work clients. Regarding employer subsidies, some felt that many employers are willing to subsidize some trips now, while others thought that there would need to be more extensive tax subsidy. For those who knew of TransitCheks, opinions were mixed as to whether or not the program could alleviate a substantial portion of the problem if employers had a better understanding of its advantages.

- Some participants recommended that existing services, such as guaranteed ride home services and TransitCheks, be more widely promoted as an initial step toward improving job access.

- In addition to transportation services, improvements in land use and facilities planning were also recommended. The suggestions included improving pedestrian and bicycle access to transit facilities, locating child care and employment training facilities at transit facilities, and incorporating job access considerations in planning approvals for new developments.

- There was also encouragement to look at the job opportunities that could result from new job access services, such as training public assistance recipients to become van drivers.

E. Comparison of Needs Indicated by Data Analysis and the Community Involvement Process

In general, the data research (Sections II.B and II.C) and the Community Involvement Process (Section D) indicate similar needs and priorities. The needs expressed by job-seekers and employers are consistent with the conditions described in the report of labor market conditions. Comments from constituents and planners also confirmed the priorities given to most of the employment markets and residential areas identified through the analysis of spatial relationships. Both the data and comments on work travel characteristics contained some ambiguities, but described broadly similar types of behavior.

Where differences existed, they general concerned the following issues:

1. ***Constituencies Not Adequately Described by the Data Analysis.*** The needs of several constituencies raised during the Community Involvement Process were not always captured by the data sources used in the analysis. In these instances, either the data source was not structured to capture these characteristics or the sample size was too small for the level of analysis required. Particular constituencies included persons with disabilities, agricultural workers and home health care workers. The plan addresses this issue by providing for flexibility in the grant evaluation process to address the needs of these constituents. In particular, the plan states that additional evaluation points be given to grant applications that address the needs of persons with disabilities.

2. ***Differences in Employment and Residential Markets Identified by the Two Processes.*** In some cases, the Community Involvement Process identified employment markets that were not captured by the data analysis. In some instances, areas were relatively small or not well-defined by zip codes. In others, recent or anticipated developments were not always reflected in the data. In addition, some additional residential target markets were identified. Generally, these are a farther distance from the employment markets than the areas identified by the transportation model. In both cases, the data was re-examined in light of the comments. If the comments were consistent and came from knowledgeable sources, and if the data did not contradict the comments, an effort was made to include these areas in the definitions of market areas. However, in some cases the identified areas were too small to meet the criteria for priority markets.

3. ***Differences in the Priorities Implied for Particular Service Enhancements.*** In some cases, comments addressed issues that could not be confirmed through the data analysis, such as the need for child care transportation. However, in most of these instances the comments were consistent and logical enough to assign a priority level to the service for different types of markets. For one major category of service enhancements prioritized through the Community Involvement Process—hours of service for public transit—the survey data did not indicate that low-income

workers had a particular need for evening and weekend hours. However, even if the demand for entry-level jobs in off-peak hours is no greater than those for other jobs, the reliance of low-income workers on transit still makes extended hours of service a legitimate priority. In addition, the survey data only measures the existing number of workers who travel at off-peak hours. Constraints on the transportation system could limit the number of entry-level jobs that are available. In fact, at least two large employers stated that they needed to limit their hours of operation or their level of service because of lack of transportation in evening hours.

Section III describes the level of priority assigned to potential improvements based on information from both the data analysis and the Community Involvement Process. Both sources were important in shaping these conclusions, as well as in identifying areas where additional research would be useful.

F. Summary of Financial Assessment

The plan's research and Community Involvement Process identified a number of constituency needs and potential opportunities for improving access to entry-level employment opportunities in the New York Region. Given the mandate of the Area-Wide Plan to identify and prioritize job access and reverse commute improvements, an assessment of potential resources is required to set some realistic boundaries for short and long-term objectives.

This financial assessment begins with a few observations on the type of resources that the Area-Wide Plan should consider and the limits to projecting how much of these will be available:

- Both public and private resources need to be considered, given the both the objectives of the Job Access and Reverse Commute Program and the scope of the improvements to be addressed.

- General capital and operating funds of transportation agencies should not be included in the assessment of resources.

- Very few of the public resources project multi-year funding streams for geographic areas, and many do not have a long legislative history for making informed judgements about future funding.

- Little data exists on the amount of private resources devoted to job access and reverse commutation in the region.

Even with these caveats, it is still possible to identify order-of-magnitude funding levels that could be available from different sources. The following describes the current funding levels and outlook for sources that can fund job access and reverse commute programs.

National Funding Sources

In general, there are three types of funding that could be targeted to the job access needs of low-income individuals: 1) Government programs specifically targeted to job access projects; 2) Government funding with a broad mandate to improve employment opportunities for welfare recipients and other low-income individuals; and 3) Private funding from foundations, employers and business associations. Some of these can also be used for reverse commute projects where income is not an issue, but there are few programs that are designated specifically for reverse commute.

The large majority of these funds originate from three Federal sources: the Job Access and Reverse Commute (JARC) Grant Program administered by the Federal Transit Administration, Temporary Assistance to Needy Families (TANF) funds administered by

the Department of Health and Human Resources, and Welfare-to-Work (WtW) grants administered by the Department of Labor. The second two initiatives are far larger than the JARC program in terms of total budget, but also cover a wide range of services in addition to transportation for low-income individuals. While JARC funds total $100 million nationally for 2001, TANF block grants to states total $16.5 billion and WtW grants total $3 billion in state block grants and competitive grants to localities. All of these programs were developed in response to the 1996 restructuring of Federal welfare programs, and their continued funding is dependent on how welfare policies evolve at both the national and state levels.

There is a wide range of program objectives and eligibility requirements for programs that are funded through these sources. Therefore, these sources cannot always be used for similar projects. Some of the major differences include the following:

- JARC funds primarily target individuals below 150% of poverty, are intended to fund transportation services, and cannot directly subsidize transit fares.
- TANF funds must benefit TANF-eligible individuals or individuals below 200% of poverty and can be used for a broad range of employment-related services, including transportation services, transit subsidies, child care subsidies, job placement and work readiness.
- WtW grants are also intended for TANF-eligible recipients, with the additional stipulation that 70% of recipients meet "hard-to-employ" criteria. They can also fund a broad range of employment-related services, with an emphasis on job readiness and job retention.

Administrative requirements also vary considerably, with each program evolving from the programs and procedures of their parent agencies. Although all have similar welfare-to-work objectives, each has separate timetables, application procedures, reporting requirements, and local administrative agencies. These differences can complicate attempts to coordinate strategies or combine funds for particular projects.

In addition to these primary funding sources, there are many other government programs with mandates to reduce poverty or improve the economies of local communities, several of which are flexible enough to fund job access transportation services. These include multi-billion dollar programs, such as Community Development, Community Service and Social Service Block Grants, and a large array of smaller programs with some potential to address job access issues.

Job Access and Reverse Commute Funding in the New York Region

The major regional sources for job access and reverse commute funding include three programs that are designed specifically to improve job access for low-income residents in the region are:

1. The Job Access and Reverse Commute program, which funds transportation services through a competitive grant process and earmarked Congressional funds. There is no regional allocation and the amount to the region will vary annually depending on how many grant applications are approved. For 2000, $1 million in earmarked funds were awarded to the region. However, $2.8 million were awarded in 2001 based on competitive proposals submitted for 2000. Therefore, a total of $3.8 million, out of $75 million funded nationally, is a more accurate reflection of the region's current annual funding.

2. The Community Solutions for Transportation Program (CST), funded from TANF block grants, provides designated funding amounts for Social Service Delivery Areas (New York City and suburban counties) using TANF block grant funds to provide transportation assistance to TANF-eligible individuals. $5.6 million, out of $24 million, was awarded to Social Service Delivery Areas in the region.

3. Wheels for Work, also funded from TANF block grants, provides designated funding amounts to Social Service Delivery Areas to help TANF-eligible individuals purchase, repair, finance and insure personal vehicles. $1.4 million, out of $10 million statewide, was designated for districts in the New York region.

Of these programs, there is overlap between JARC and CST but not JARC and Wheels to Work. JARC is prohibited from financing auto purchases, while that is the central objective for Wheels to Work. Most JARC-eligible activities can be funded by CST, with the exception of reverse commute programs unrelated to income. However, CST can also provide transportation subsidies directly to recipients.

Considered as a whole, these programs complement one another and provide $10.8 million in job access and reverse commute funding for the region.

Of the other potential government programs, the New York Works Block Grant is the most likely source for additional job access funds, since it is directed to support Welfare to Work activities. However, transportation uses must compete with many other purposes, and a convincing case would have to be made that the funds set aside for JARC, CST and Wheels to Work are insufficient.

CDBG and Community Service and Social Service Block Grants can be combined in creative ways with job access funds to serve particular communities. However, in addition to justifying the need for transportation services above those funded by JARC, the projects would also have to serve the broader community development purposes of these programs.

These other government funds represent a large potential source for job access funding, but one that will require strong justification to compete with other needs.

Private funding is even more difficult to assess. Listings in the Foundations Grant Index, 2000 show that 46 foundations provided grants to organizations in the New York region to assist low-income individuals to improve their employment and career status. These grants totaled $8.2 million, which probably understates the amount currently awarded, since not all grants are listed and funding has probably increased since this data was reported. However, very little appears to have been spent on transportation services, although these activities clearly fall within the funding guidelines of many foundations. Some funding for job access may be available by applying for foundation grants, particularly if part of a comprehensive package of services for the foundation's major constituencies.

Finally, while there are a number of examples of employer-provided transportation in the region, there is no database and no way to estimate the extent of these services. This is a potentially substantial source of funding, but one that employers have been reluctant to embrace on a large scale.

It is difficult to assess how much is currently expended on job access services by private sources, but it likely to be much less than the $10.8 million in government programs.

Projecting the Availability of Job Access and Reverse Commute Funding in the Region

There are few certainties regarding future funding allocations or changes in program eligibility. JARC funds are allocated through 2003 and will rise to $125 million nationally in 2002 and $150 million in 2003. Funding levels for TANF and WtW bock grants will remain the same until 2002. The outlook for these programs past these years is unclear. Even within the next two years the amount available to the region will depend on state legislation and the approval of competitive funds for JARC.

For planning purposes, it is prudent to assume that the combined availability from JARC, CST and Wheels to Work funds will range from $10-15 million annually for the region in 2001 and 2002. This assumes similar funding levels for CST and Wheels to Work. JARC funding has the widest variability. The upper level of the range ($15 million) takes into account the rising national allocations for the JARC program and would also mean that the region would increase its share of competitively awarded projects. However, increased allocations to the region from CST or other TANF-funded programs could also increase the total. The lower end of the range ($10 million) could result either from a reduction in the region's share of competitive JARC grants or a reduction in TANF allocations to the region. Higher funding levels are also possible if Congress revises funding formulas.

The amount of funding that could be obtained from private or other government sources depends on how aggressively and effectively these sources are targeted for job access and reverse commute purposes. Of these other potential sources, the New York Works

Block Grant and employer-financed programs are the most likely sources. As a point of reference, $5 million from the NY Works Block Grant for job access services would represent less than 10% of the region's total allocation from this source.

Beyond 2002, there is too much uncertainty to project funding levels. Even with an additional year remaining in the JARC program, the expiration of TANF block grants puts funding for all Welfare to Work activities in doubt. While some continued funding for Welfare to Work activities is highly likely, the total budget, state and regional funding allocations and program requirements will be heavily debated over the next two years.

III. EVALUATION OF POTENTIAL JOB ACCESS AND REVERSE COMMUTE SERVICES

Since Federal, State and private funding sources are limited, funds should be targeted to transportation services that are likely to have the greatest impact on improving employment outcomes for persons with low income and reverse commuters. The plan evaluates the potential of different service options through the following steps:

- Identification of the types of service improvements that could be used to address job access and reverse commute needs, and a general assessment of which of these improvements are most applicable to different kinds of needs and markets;
- Evaluation of the potential for services that could be implemented on a region-wide basis;
- Identification of employment markets that have the greatest potential for expanding job and career opportunities through job access and reverse commute services; and
- Evaluation of the potential for services that could be implemented to connect these markets to low-income job seekers and workers.

All of these steps combined analytic research with input from transportation and human service providers, as well as from other participants in the planning process. In addition, these evaluations are intended to rank the broad *potential* of different service categories in different parts of the region. Grants that are developed for the Job Access Program will still need to establish their feasibility and will be evaluated based on their ability to meet criteria that are established by the FTA and NYMTC.

A. Types of Service Improvements

As defined in the March 10, 2000 Federal Register Notice for the Job Access and Reverse Commute Transportation Program, job access transportation projects are generally services "…targeted at filling transportation gaps and designed to transport welfare recipients and low-income individuals to and from jobs and other employment-related support services such as childcare and job readiness, training and retention services." Communities have a great deal of flexibility in the selection of programs that are appropriate for meeting their needs. Given limitations in resources, innovative approaches are encouraged, particularly those which build off or facilitate more efficient use of existing services. In some cases, simply the promotion of existing services through marketing and advertising can be an appropriate strategy to increase awareness of transportation options without requiring the provision of new transportation services. In other cases, supplemental services are warranted to support specific needs which are not being met by existing services, particularly to support

"reverse commuting" to job locations outside of the Metropolitan core areas. Throughout the U.S., several different approaches or types of service improvements have been successful in meeting jobs access transportation needs.

Table III.1 lists applicable transportation service improvements that can assist welfare recipients and other low-income individuals to access employment opportunities and employment-related services. These services are not only applicable to the FTA's Job Access and Reverse Commute Program. In fact, some of these services are not eligible for funding under the FTA's program, but could be funded under other Federal programs or from private and nonprofit resources.

The list of services demonstrates the range of approaches that should be considered to address job access—Public Transit Services, Private Transit Services, Demand Responsive Services, Service Delivery Enhancements, and Transportation Demand Management Strategies. Many of these services have traditionally emphasized different purposes, such as congestion reduction or general service for persons with disabilities. However, their attributes may be just as appropriate for targeting work-related travel.

Table III.1.
Transportation Service Improvements to Support Job Access and Reverse Commutes

Service	Description
Public Transit Services – ***Transportation by bus, rail, or other conveyance, either publicly or privately owned which provides general or special service to the public on a regular and continuing basis. Also known, as "mas transit" and "mass transportation."***	
New Local Routes	Provide frequent service with closely spaced stops. This type of route operates best in urban environments within defined neighborhoods.
Express Routes	Provide limited stops for boarding and alighting. This type of route works best in serving suburban commuters between neighborhoods.
Feeder Routes	Feeder routes provide connections to other transit services that are frequently express operations such as rapid transit or commuter rail.
Extension of Existing Services	The extension of an existing transit route can provide coverage to new markets or markets which have undergone recent expansion. The extension of existing services provides additional service at a lower incremental cost than provision of new routes.

Extended Service Hours	Many entry-level jobs do not maintain traditional working hours. Work opportunities in the hotel and restaurant industries are typical of late night or third shift opportunities. While they may be located on an existing transit route, these locations may not be served by scheduled service during late night or early morning working hours.
Modification of Routes and Stops	Changes in the number and location of stops, or revisions in the route that a bus travels, can be particularly important where there have been changes in the location, size or characteristics of residents and employers.
Timed Transfers and Schedule Coordination	Coordinated schedules can reduce wait time at transfer locations and therefore total travel time for persons needing to transfer between two or more transit services.
Increased Frequency of Service	By increasing the frequency of an existing service, commuters have shorter wait times prior to boarding as well as increased work schedule flexibility. May be particularly applicable during off-peak period operations.
Transit Pass Subsidies and Vouchers	Provision of free or subsidized transit passes or vouchers can be used to reduce transportation costs for low-income workers. The cost for these subsidies is generally borne by the employer.
Private Transit Services– ***Transport service that is restricted to certain people and is therefore not open to th public at large. May be owned or operated by an individual or group, not a government entity, for their or it own purpose or benefit.***	
Subscription Buses	Subscription buses require a reservation and provide transportation from a centralized pick-up point directly to participating employers. Passengers generally purchase a pass that is valid only on that particular route.
Private Shuttle Services	Private carrier shuttles may provide linkages from a transit node to an employment center. These shuttles have traditionally been paid for by businesses along the shuttle route.
Demand Responsive Services– ***Non-fixed route service utilizing vans or buses with passengers boarding an alighting at pre-arranged times at any location within the system's service area. Also includes personal transi service, such as taxis, operated on roadways to provide service on demand with vehicles dispatched and use exclusively for this type of service.***	
Route Deviation	Route deviation services allow buses to operate along a fixed route and make scheduled stops. Buses can deviate from the route to pick up or drop off passengers upon request. If the vehicle deviates from the fixed route, it will return to the route at the point at which it departed to accommodate the request.

Point Deviation	Point deviation services allow vehicles to operate on a fixed schedule with specific stops but without a fixed route. Vehicles will accommodate requests for pick up and drop off at locations other than designated stops as long as these added stops can be accommodated within the fixed schedule. May require advance reservations.
Subsidized Taxi Service/ Jitney Service	Customers can use this form of transportation if their job or home is not accessible by traditional public transportation services. Passengers can phone in trip requests for door to door pick up and delivery between home, daycare and employment. Passengers are required to phone in reservations in advance so that trips can be scheduled in advance. While this form of service is very expensive to provide it can be a very effective measure.
Child Care Transportation	Supplemental to home-workplace transportation, child care transportation provides transportation services between home, school, and daycare situations. Can be provided by various modes depending upon availability and location of services.
Service Delivery– ***General category of service enhancements that can improve the way transportation services are provided, marketed, or administered to increase service efficiency and availability of information for the transit user.***	
Transportation Management Associations (TMA) Services	TMA's are non-profits that work with private businesses to encourage alternative forms of transportation. Customer information systems as well as customized trip planning services are two products associated with TMA's. TMA's have facilitated subscription bus services in the NY Metropolitan area. Funding for TMA's usually is provided by the business community.
Transportation Brokerage Services	Individuals or organizations can assist users and human service organizations to identify and utilize available transportation services and help to coordinate service delivery by public, private and nonprofit service providers.
Transportation Cooperative Services	Cooperatives can help individuals and organizations to pool resources and share services, such as community vans and buses.
Marketing and Advertising	Promotional activities such as marketing and advertising can increase awareness of transportation options, particularly to individuals with limited knowledge of available services.
Transportation Demand Management Strategies– ***Strategies that focus on alternatives to single-occupant automobile travel and appropriate support services to encourage use of these alternative modes. Includes ridesharing, use of non-motorized transportation, and public transit (as separately described above). These strategies are often implemented by Transportation Demand Management (TDM) organizations, which have the specific mission of reducing auto congestion through these alternatives, but alternative services can also be provided by public transportation agencies, community-based not-for-profits, and others.***	

Traveler Assistance Services	Includes services provided by organizations to promote and market alternative transportation services such as ridesharing and public transit, as well as a broad range of services to help individuals identify and utilize appropriate transportation services. Can involve utilization of sophisticated technology such as Geographic Information Systems (GIS), Intelligent Information Systems (ITS), and the internet to facilitate service coordination and more efficient service delivery and provide improved traveler information relevant to schedules, stop location and routing.
Bicycle Programs	The provision of bicycle infrastructure such as the installation of secure racks and lockers, and showers at the workplace.
Van Pools	The establishment and subsidization of van pools can assist persons living or working in areas unserved by public transportation. Eligible activities may include the purchase or lease of vehicles, payment of parking fees or purchase of gas and insurance. Van pools work well with urban commuters and involve 8-15 riders.
Car Pools	The establishment and subsidization of car pools can assist persons living or working in areas unserved by public transportation through sharing private automobiles. Eligible activities may include payment of gas, parking fees and purchase of insurance. Car pools work best in suburban locations where auto ownership among low income individuals is higher.
Guaranteed Ride Home Program	This program provides participants with a guaranteed ride should an emergency situation arise that the existing transportation can not accommodate, such as a sick child or the need to work late. This program provides a safety net for people using alternative transportation (public transportation or ridesharing) to reach their places of employment.
Automobile Based Programs – *Programs which enable more efficient use of automobiles or use of automobiles by low-income individuals.*	
Vehicle Share Programs	Car share programs allow participants to have access to a vehicle while only paying incremental costs associated with hours of use and mileage. These programs allow automobile access without the high costs of owning a car.
Automobile Purchase Programs	One-time subsidies can be given to assist in the purchase or lease of automobiles for program participants. Donated cars can also be repaired and given to participants to assist in meeting the transportation needs of the rural community.

B. Evaluation of Potential Region-wide Actions

The planning process for the Area-Wide Plan identified several needs that could be addressed through services provided on a region-wide basis, either for the entire region or for a particular county or group of counties. The following recommendations address actions that can be funded through either the Job Access and Reverse Commute Program or other programs that can address the transportation needs of low-income workers and job seekers. Issues that are beyond the scope of these programs, and therefore the Area-Wide Plan, can be addressed through other planning processes. These related issues are noted following the recommended actions.

1. Recommended Region-Wide Actions

a. Recommendations for Traveler Assistance Services

Region-wide actions that can be funded under the Job Access and Reverse Commute Program include a broad range of activities that help job seekers and workers to use existing transportation options to find employment and commute to work. These "traveler assistance services" are most effective when offered on a regional basis to reach the widest number of users and connect the largest number of potential resources. Many organizations in the region already offer these types of services, including CommuterLink in New York City, MetroPool in the Hudson Valley, and Long Island Transportation Management. In addition, public agencies often offer similar services such as the Smart Commute programs in Westchester and Rockland Counties. Also, the New York State Department of Transportation supports local efforts through its Transportation Demand Management units. Generally, the primary goals of these organizations are to promote the use of mass transit and other forms of ridership to reduce highway congestion. However, the types of services offered are also pertinent to job access. In addition, many of the region's transportation providers, social service agencies and nonprofit organizations also provide information or assistance to clients in helping to locate and use the most suitable form of transportation through web sites, call centers and client services.

Traveler assistance services are specifically included in the FTA's guidelines to the Job Access and Reverse Commute Program, and can also be supported by other public programs and private and nonprofit funding. Specific activities to improve these services on a regional basis, which could be provided either by existing or new organizations, include the following:

- *Disseminating Information and Promoting the Use of Services That Assist Job Seekers in Using Available Transportation Services:* These traveler assistance services range from transportation demand management services such as car pooling and guaranteed ride home programs, to traveler information services, such as the *Trips123* service that will soon be available in the region. Information dissemination and promotional activities can be funded to target low-

income workers and job seekers, as well as to employers and human service assistance organizations that employ or serve these constituents.

- *Enhancing Traveler Assistance Services*: Activities can be proposed to make the traveler assistance services described above more beneficial to low-income workers and job seekers. Enhancements can include changes in program design, service delivery, eligibility criteria or other factors that enable low-income workers and job seekers to more effectively utilize these services.

- *Providing New Traveler Assistance Services*: New services can be funded to assist job seekers and workers to locate job opportunities and employment-related services, such as child care, One-Stop Centers, and employment service providers, and avail themselves of existing transportation services to these locations.

- *Establishing Transportation Brokerages*: Brokerages either coordinate service delivery by multiple providers or arrange for transportation to be provided for clients. An example of the first would be a service that coordinates the use of church vans, school buses and other community transportation resources to help workers and job seekers travel to jobs and employment-related services. An example of the second would be the use of mobility managers to assist welfare-to-work or other clients to locate and arrange suitable transportation to work and employment-related services. Brokerage services could be provided either by expanding the activities of existing transportation or human service providers, or by establishing new entities that would focus exclusively on these activities.

The planning process identified several instances in which employers, human service providers and others were unaware of existing services that could be utilized. In addition, there was recognition that transportation demand management programs had a latent potential to address job access needs through program enhancements. Among the actions identified with a strong potential are the following:

- **Design and implementation by NYMTC of an information resource for organizations involved in Job Access.** This resource, which is conceived as a page on the NYMTC website and an associated information brochure, would provide ongoing information on the type of traveler assistance and transportation demand management services available in the region. Distribution would be targeted to human service providers, community organizations, employment specialists, nonprofit service providers and others that have responsibility to connect welfare recipients and other low-income individuals to job and career opportunities. This resource would effectively provide a "one-stop information shopping center" for organizations seeking services to facilitate job access for their clients.

- **Targeted training for employment specialists and human service providers**. An extension of the previous service, this would identify service providers that could benefit from specialized workshops on how to use transportation resources, and

design and implement delivery systems. These workshops would then be organized through NYMTC and its members.

- **Expanded marketing of transportation demand management services to small employers and low-income workers and job seekers.** While these constituents are included in current marketing efforts for TransitCheks, car pooling, guaranteed ride home services, and other TDM activities, expanded outreach targeted to these groups could improve the use of these services for entry-level workers. This expanded outreach would be coordinated through NYMTC's Metropolitan Mobility Network.

- **Implementation of partnerships between transportation providers, TDM organizations and human service providers to broker transportation services.** The mobility manager program funded by the Job Access Grant program and implemented by the Metropolitan Transportation Authority and New York City's Human Resources Administration is an example of a service that helps welfare recipients and welfare to work clients fully utilize existing transportation services. Other potential partnerships include collaborations between regional TDM organizations and county human service providers, both public and private, to tailor car pooling and other services to welfare to work clients and other low-income constituents. The One-Stop Centers that are opening under the jurisdiction of the region's Workforce Investment Boards represent a particular opportunity. As the physical and administrative center for employment and training services, the One-Stops can also provide a central location for transportation brokerage functions and the delivery of job access services. The complementary expertise of One-Stop Centers and TDM organizations could prove highly successful in developing and funding alternative transportation services for low-income clients. These efforts could facilitate the creation of transportation services for specific markets through private and nonprofit resources, as well as through public funding.

b. Recommendations for Services to Persons with Disabilities

The FTA's guidelines for the Job Access and Reverse Commute Program recognize that one of the program's constituencies—persons with disabilities—face particular hurdles in commuting to work and services. For those who are unable to commute by either auto or by scheduled public transit service, door-to-door paratransit service is generally the only option for traveling to work. Each of the region's public transportation providers offers paratransit service under the guidelines of the Americans with Disabilities Act (ADA). These services must cover areas that are serviced by public transportation, and allow many to travel to job interviews, job training, medical appointments and places of employment. In addition, at least one jurisdiction, Westchester County, goes beyond ADA requirements and provides paratransit service to areas not covered by public transit. However, many of the comments obtained through the Community Involvement Process described a number of problems in using paratransit service to obtain and hold regular employment. These included variable

pick-up times, uncertain travel times, and unreliable service. Many also cited a limited availability of subscription service that allows travelers to reserve routine pick-up on a regular basis, and difficulties in scheduling work trips on a daily basis if they did not have subscription service.

It is beyond the scope of the Area-Wide Plan to evaluate these concerns with ADA paratransit service. However, it is clear that low-income persons with disability face particular difficulties that many proposed job access projects would not address. Funding from the Job Access and Reverse Commute Program, as well as TANF and welfare-to-work funding, can address these difficulties in three ways— 1) by funding enhancements to existing ADA paratransit services, 2) by initiating other services for persons with disabilities that address gaps in the transit and related paratransit system, or 3) through service enhancements that serve both disabled and non-disabled clients.

The first option—funding enhancements to existing ADA paratransit service—should be given a relatively low priority. First, there is a substantial mismatch between the level of funding available for job access programs and the funds that would be required to substantially enhance paratransit services. Paratransit services have a high cost per passenger, and applying even a substantial portion of regional job access funds to these programs would result in relatively few service enhancements or access to new job opportunities. Second, program requirements would necessitate some targeting to persons with low-income. This could complicate the basic objective of paratransit service—to provide parallel service to all individuals who are unable to use scheduled transit service because of physical impairments.

Proposals related to the second option--initiating other services for the disabled-- should be considered along with other proposals and evaluated by the criteria described in the Grant Solicitation Guide issued by NYMTC for the Job Access and Reverse Commute Program, including number of persons served, potential for improving employment outcomes, and cost effectiveness. However, the greatest potential for addressing the needs of the disabled is likely to come from demand responsive and non-ADA paratransit services that serve both disabled and non-disabled clients. These could include van service in low-density areas, subsidized taxi service and many of the traveler assistance services described above. To insure that projects funded under the Job Access and Reverse Commute Program address the needs of persons with disabilities, the following criteria will be included in the evaluation of grant proposals:

- **Project proposals that demonstrate that they will measurably improve job access for persons with disabilities will receive additional evaluation points for selection by NYMTC.** Proposed service enhancements can meet this criteria in a number of ways, such as by improving accessibility to public or private transit, by training persons with disability to use public transit for employment purposes, by implementing demand responsive paratransit services that will improve transportation options for persons with disabilities, or by targeting traveler assistance

services to persons with disabilities. Users of the service must still meet the income or reverse commute requirements of the program.

2. Recommendations for Additional Research

Several region-wide issues identified during the planning process require additional study before programmatic recommendations can be made. In general, these issues involve coordination across jurisdictional boundaries, combining funds from different programs, or better understanding of complex problems. In particular, three issues—cost subsidies, childcare transportation and service coordination—could benefit from additional analysis to determine how alternative solutions and different funding sources can best be applied. The first issue cannot be addressed through funding from the Job Access and Reverse Commute Program, but could be addressed through programs funded by TANF or Welfare-to-Work funding. Actions to address the second issue could be funded from a number of sources, including Job Access and Reverse Commute funds. Both were identified by several sources throughout the region as improvements that would address major barriers to job access for persons with low incomes. The third issue, improved coordination of transportation services, particularly the integration of public transit and human services transportation, is an encouraged activity under the FTA's Job Access and Reverse Commute guidelines. Although some solutions for all three of these issues could be implemented for a single jurisdiction or market, there is potential for more effective approaches based on regional collaboration. Recommendations to address these issues include the following:

- **Analyze potential improvements in the use of TANF and Welfare-to-Work funds to subsidize transportation costs.** Transportation costs are clearly central to the issue of job access for persons with low income. Insufficient means to purchase or maintain an automobile is the main factor that differentiates the transportation needs of this constituency from those of the general population. Low incomes can limit transit options as well as the use of private transportation services. For reverse commutes and trips that involve travel on multiple transit systems, the cost of the commute was one of the employment barriers that was cited most frequently during the plan process by welfare recipients, human service agencies and employment specialists. The cost of taxi service is also an important issue for job access in low-density areas where taxi service, even for low-income workers, can be an important part of the commute. Because service is generally regulated by municipalities, both the availability and cost of service can vary considerably outside of New York City.

  Although the FTA's Job Access funds cannot be used for fare subsidies, programs that are funded through TANF or Welfare-to-Work block grants can include subsidies for eligible clients. In addition, all of the region's social service districts offer some form of transportation subsidy to TANF-eligible welfare-to-work clients. However, the comprehensiveness of the subsidies varies by jurisdiction, and the use of different fare media on different systems can make it more difficult to provide

subsidy mechanisms that can used on multiple systems. There are also time limits for eligible recipients, and low-income workers who are not TANF-eligible are not covered. Additional analysis could identify innovative practices in other regions and suggest how different funding sources could be effectively combined to improve existing subsidies for low-income workers.

- **Examine the region's network of childcare facilities and childcare transportation services to identify effective service models.** Difficulty in finding adequate childcare that permitted a feasible commute was cited as one of the leading job access issues in nearly all of the Area-Wide Plan's public meetings. This is a complex issue that involves the number and capacity of childcare providers, the quality and cost of childcare services, and the physical relationship of workers, job locations, childcare providers and transportation services. The region has 12,000 childcare providers that have been certified by New York State. These range from large, comprehensive daycare centers to small family childcare in the provider's home. While the location of these providers can be mapped and their physical relationship to low-income populations and transportation services can be analyzed, this analysis would be of little value without more information on the capacity of these providers. In addition, there is little information on the extent of transportation services provided directly by centers or their affiliates.

  Additional research may require a survey of childcare centers to determine their capacity and detailed analysis of their relationship to low-income populations and the transportation network. In addition, research into service models that address childcare transportation issues can identify potential solutions that could be implemented in different service areas throughout the region. A more detailed database will also permit the use of Geographic Information Systems to target service needs and help job-seekers to identify accessible providers.

- **Examine the potential for improved coordination of public, private and nonprofit transportation services for low-income workers.** Section III.C. of the plan evaluates the potential for some service coordination issues, such as schedule coordination on different transit systems, to improve job access for particular market areas. However, there is a larger issue of how to coordinate the public, private and nonprofit transportation services used most intensively by low-income workers and job seekers. In addition to public transit, these services can include transportation provided to access health and social services, information systems designed to locate and map clients for particular services, and privately operated shuttle, van and taxi service. These services frequently cut across jurisdictional boundaries and would benefit from a region-wide assessment of potential enhancements to service coordination.

3. Relating Job Access to Other Region-Wide Issues

Some job access and reverse commute needs identified in the planning process are clearly related to a number of issues that cannot be funded either by the Job Access and Reverse Commute Program or by other programs that can enhance transportation services for low-income job seekers and workers. These include not only the larger regional transportation issues discussed above, but also workforce, land use and economic development policies. Several of these issues were raised during the Community Involvement Process. While the Area-Wide Plan cannot address this broader spectrum of policies, it can contribute to an understanding of how they affect access to employment and career mobility for the Plan's target population.

Non-transportation issues include the workforce development and welfare-to-work policies of the region and the state. Workforce policies affecting job access include the types of job training and employment services that are offered, the types of support services that are provided, and the administration of welfare-to-work programs. Coordination between job training and job access planning can help insure that both are targeting the same type and location of job opportunities, and help identify ways in which funding sources can be combined to most effectively design programs that improve employment outcomes. The Job Access and Reverse Commute Program is intended to promote collaboration among transportation and human service providers on welfare-to-work strategies, but will require proactive efforts to continue this process. The state's Workforce Investment System, administered by the New York State Department of Labor and implemented by local Workforce Investment Boards, is the planning forum that is responsible for addressing many of these issues. Effective communication between these related efforts can enhance the effectiveness of both.

A number of other issues were raised during the Community Involvement Process. These included the need to coordinate job access planning with economic development objectives, and the effect of local land use decisions on the mismatch between residence and work locations. It is more difficult to relate the Job Access and Reverse Commute planning process to these efforts because they are largely decentralized. However, communication with economic development agencies can be of some value in helping to insure that job access programs support economic development efforts, and vice versa.

For the broader regional transportation issues, NYMTC's metropolitan transportation planning process is the region's forum for addressing policies that relate both to job access and general transportation services. The Job Access and Reverse Commute planning process is a part of this larger effort, and can contribute to the consideration of these issues.

C. Evaluation of Job Access and Reverse Commute Opportunities for Priority Employment Markets

The primary purpose of this section is to provide guidance to applicants proposing transportation enhancements for specific locations under the Job Access and Reverse Commute Transportation Program. The information provides a broad evaluation of the type of services that have the most potential to improve job access in different locations. Using employment and household data, transportation modeling, an inventory of existing transportation services, and information from the Community Involvement Process, the evaluation identifies the following:

- *Employment markets* that are judged to have the greatest potential for providing additional job opportunities to low-income constituents and reverse commuters through improved transportation access. Criteria for the selection of these markets are described below.

- *Target residential areas* for each employment market that indicate the greatest potential to place additional low-income residents in these markets. These residential areas can be within, contiguous to, nearby or at a distance from the employment market. Their identification depends on a number of criteria, including the number of low-income residents, the extent of current transportation services linking these areas to the employment market, commuting times, and the degree to which enhanced services would be likely to improve the commute for entry-level workers. These areas are identified in the descriptions of each employment market beginning on p. 57.

- *Opportunity rankings* consisting of qualitative evaluations of the types of services described in Section III.A. The criteria for these rankings are described below beginning on p. 49.

The use of this information requires three important considerations. First, it provides only a broad evaluation of the *potential* of different markets and types of services. On its own, it does not provide sufficient analysis to justify particular service proposals. Even for highly ranked service enhancements, proposals need to be based on a detailed analysis of demand and project feasibility to determine that the proposal will fill an unmet need for service from particular residential locations to specific employment destinations, and that the service is the best option for filling this need. Second, proposed services cannot duplicate existing transit services. Third, grant applicants can still justify services that are not highly ranked or that target areas outside of priority markets if they can demonstrate that the proposed service would significantly enhance job access for a substantial number of constituents.

SELECTION OF PRIORITY EMPLOYMENT MARKETS

To help target job access and reverse commute resources, the Area-Wide Plan prioritizes several employment markets. To define and select these markets, the following methodology was used:

1. Zip codes in the ten-county region were ranked by employment size in 1999 and employment growth since 1993.

2. The number of entry-level jobs and potential low-income workers were estimated for each zip code.[1]

3. The potential for increased trips from low-income workers to entry-level jobs was estimated for each zip code using a transportation model developed for the Area-Wide Plan.[2]

4. Zip codes were given a ranking of 1 to 5 for employment size, employment growth and modeled trip potential and then given a composite ranking using a weighted average of these three criteria.

5. A preliminary set of priority markets was defined using a combination of zip code rankings and input obtained from employment specialists, transportation providers and others during public meetings and focus groups. Contiguous zip codes with strong potential were grouped into markets or corridors. In addition, three markets in New Jersey were added based on a combination of employment analysis and input from the community outreach process.[3]

6. The preliminary set of markets was revised based on a review with the transportation and planning agencies covering these areas.

The 17 priority employment markets defined through this effort are shown in Table III. 2. below. This table also shows whether each market is defined as urban, suburban or rural, and indicates which criteria were important to its designation as a priority area. An "X" indicates that the criteria was a significant factor in selecting the area as a priority market, a blank cell indicates that the criteria was unimportant to the selection, and "na" indicates that insufficient information was available to use the criteria.

[1] Entry-level jobs are defined as those paying less than $20,000 per year. Low-income workers are defined as those in households with total household incomes of less than $20,000 per year. $20,000 is approximately equal to 150% of the poverty rate for a family of three. To estimate the number of potential workers in these households, it was assumed that the number of workers per household could equal the county-wide average for all households.

[2] The specifications and results of this model, known as a gravity model, are described in a technical memorandum from Cambridge Systematics, Inc. to the New York Metropolitan Transportation Council.

[3] Zip codes in New Jersey and Connecticut could not be used in the modeling effort because of data inconsistencies between the three states.

Table III.2
Priority Employment Markets by Type and Selection Criteria

Market	Type	Criteria			
		Employment Size	Employment Growth	Modeled Trip Potential	Community & Agency Input
New York City					
Queens					
Kennedy Airport	Urban	X	X	X	X
LaGuardia Airport	Urban				X
Brooklyn					
Brooklyn Waterfront	Urban	X	X	X	X
Staten Island					
Hylan Boulevard-West Shore	Suburban		X	X	X
Lower Hudson Valley					
Westchester					
White Plains/Westchester I-287 Corridor	Suburban	X		X	X
Southern Westchester Cities	Urban	X		X	X
Rockland					
Routes I-287/59 & 303 Corridors	Suburban			X	X
Putnam					
Route 22 Corridor	Rural			X	X
Westchester-Putnam-Fairfield					
Route 6 Corridor	Suburban		X	X	X
Long Island					
Nassau					
Central Nassau Centers	Suburban	X	X		X
Northern Nassau	Suburban		X	X	
Suffolk					
Route 110 Corridor	Suburban	X	X	X	X
Central Suffolk Centers	Suburban	X	X	X	X
East End	Rural		X	X	X
New Jersey					
Meadowlands	Suburban	X	X	na	X
Paramus	Suburban	X		na	X
Hudson County Waterfront	Urban	X	X	na	X

As shown in the Maps on page 48, these markets vary widely in size, location and complexity. In New York City, the four markets include the two airports, the industrial Brooklyn waterfront, and the Hylan Boulevard-West Shore areas of Staten Island. The first three are distribution or industrial centers, and the fourth is a rapidly developing area that more closely resembles some of the region's suburbs in terms of density and transportation services. The relatively small number of employment centers in New York City largely reflects the fact that the city is well-served by mass transit. To a lesser degree, it reflects the fact that entry-level jobs comprise a smaller share of jobs in the city than in the suburbs.

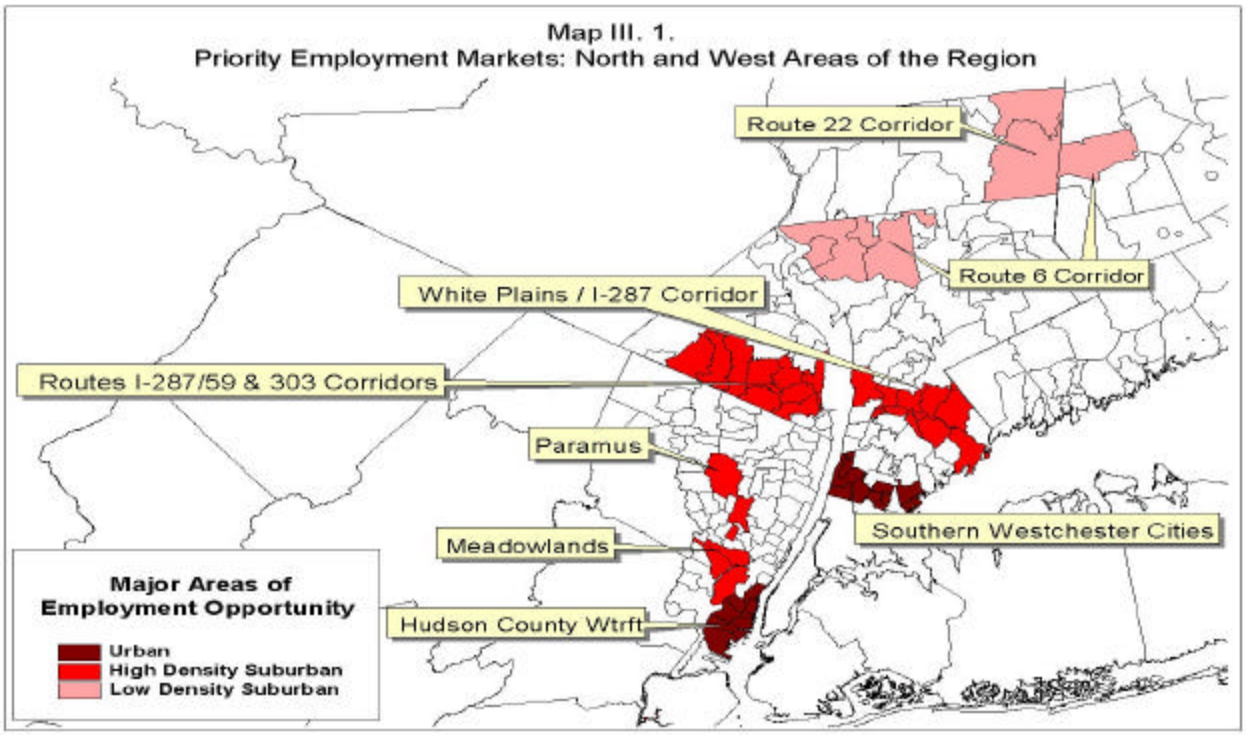
Markets in the lower Hudson Valley include the I-287 Corridor and the cities of Yonkers, Mount Vernon and New Rochelle in Westchester County, the Routes I-287 59 & 303 corridors in Rockland County, the Route 22 Corridor in Putnam County, and the Route 6 Corridor extending from northern Westchester through Putnam to Danbury CT. These include large, diverse employment centers as well as rapidly growing suburban and rural areas.

Long Island markets include centers in both Central and Northern Nassau County, as well as the Route 110 Corridor, Central Suffolk, and the East End in Suffolk County. These also range from high-density suburban employment markets to lower-density areas, and most cover large geographic areas.

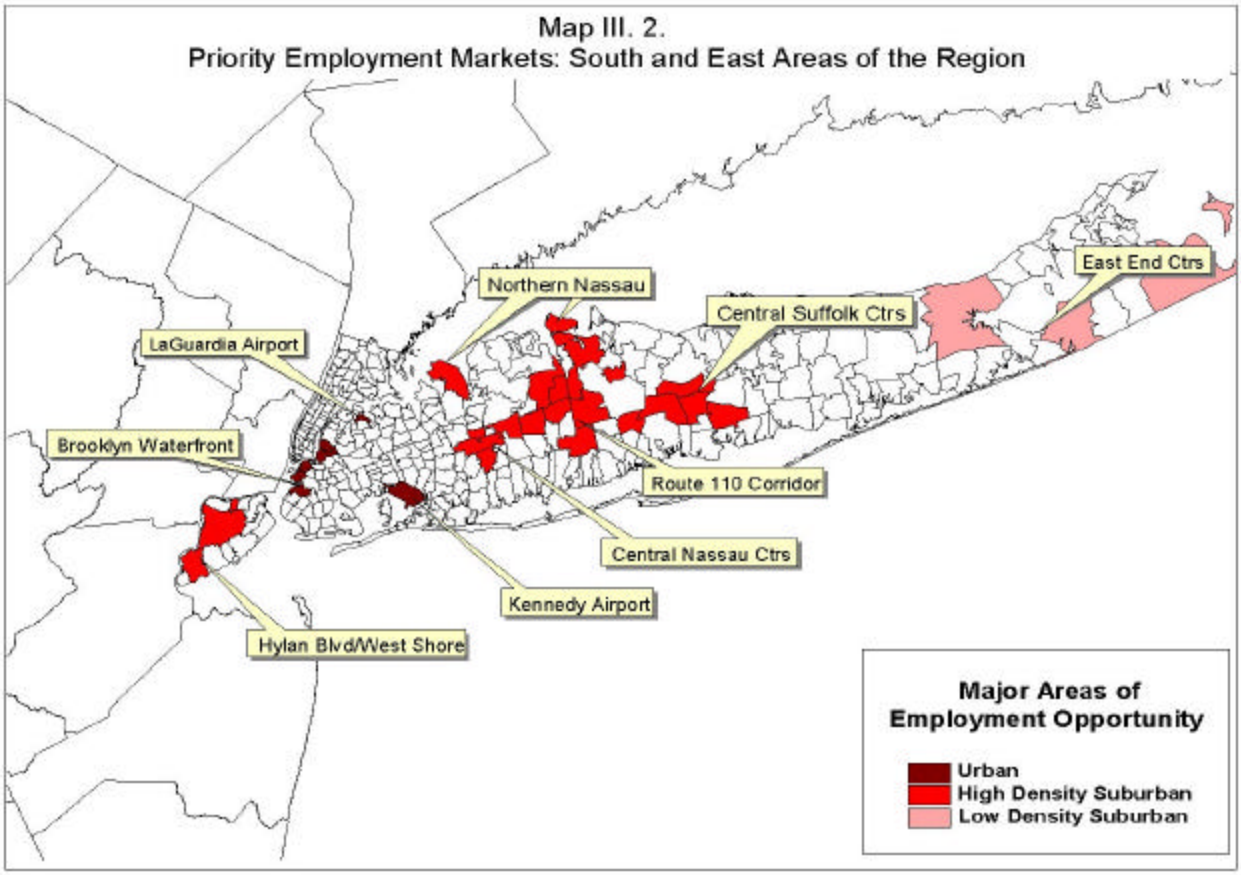
New Jersey markets include the Meadowlands, Paramus and the Hudson County Waterfront. These are relatively dense and growing employment centers just outside of the 10-county New York region.

It should be noted that these priority markets do not include every area with employment opportunities that could be enhanced with job access services. Although the selection process included a wide range of inputs, it was limited by the level and quality of available data, as well as by varying levels of public participation throughout the region. In particular, markets that are not well defined by zip codes or that are changing rapidly may not have been captured. As noted above, grant applications that target other areas can be submitted with sufficient justification. However, it is expected that the large majority of job access services will be directed toward these markets.

Map III. 1.
Priority Employment Markets: North and West Areas of the Region



Map III. 2.
Priority Employment Markets: South and East Areas of the Region



RANKINGS FOR JOB ACCESS OPPORTUNITIES IN PRIORITY MARKETS

Each of the markets identified above has a particular set of characteristics and opportunities to enhance job access. Some of the major factors that determine the applicability of different services include the size and employment density of the area, the types of jobs and hours of work that are represented in the employment base, the distance to residential areas with potential workers, and the extent of current services in and to these markets.

To evaluate the opportunities represented by different service enhancements for priority markets, the services described in Table III.1 were assessed to see how they applied to each market. With the exception of services that are only applicable on a regional or county-wide basis, each type of enhancement was categorized as having "High", "Medium" or "Low" potential for improving access to job opportunities for low-income residents. These rankings were based on a number of inputs, including a review of industry employment and wages in each market, an inventory of existing transportation services, output from the transportation model developed from the plan, and information provided in public meetings, focus groups and meetings with transportation providers. This analysis permits a broad assessment of opportunities to improve job access. It does not allow for recommendations that target specific transit routes or transportation services. Recommendations for specific actions require in-depth analysis of market demand, project feasibility and outcomes that must come from the agencies, organizations and partnerships that propose the service enhancements.

Tables III.3 – III.6 show the rankings that were assigned in each market. The general criteria used to assign a High, Medium and Low ranking to each type of public and private service are as follows:

Public Transit Services

- *New local routes:* The degree to which residential areas with the potential to provide additional low-income workers are in the vicinity of the market, and local service to these areas does not currently exist. Higher rankings tend to be in rapidly growing or changing markets where there might be strong growth in the demand for new services.

- *Express routes:* The degree to which residential target areas are of a sufficient distance that express service might be an option. Higher rankings tend to be in larger or denser suburban employment markets that can support express service from distant residential markets.

- *Feeder routes:* The degree to which a diversity of employment centers are in proximity to fixed route transit service, making public transit feeder routes a more viable option than private shuttle services. Higher rankings are more likely to be in

suburban markets that have good transit service along central corridors, but with several employment locations that are beyond the main transit routes.

- *Extension of existing service:* The degree to which additional employment centers or residential target areas might be made accessible by extending existing routes. Higher rankings tend to be in growing or changing markets where new or growing employment and residential markets are emerging near existing transit routes.

- *Extended service hours:* The degree to which a substantial number of work shifts in the employment market start or end at times when service is not available. Higher rankings tend to be in urban or suburban markets with a large number of employment opportunities in industries with off-peak hours, such as retail and health services, and transit service that has limited evening, early morning and weekend hours.

- *Modification of routes and stops:* The degree to which changing employment or residential patterns might warrant potential changes in route configuration or the relocation of stops to be in closer proximity to or improve accessibility for particular employment centers or low-income residential areas. Higher rankings tend to be in growing markets, or ones with changing residential and employment patterns.

- *Timed transfers/schedule coordination:* The degree to which improved coordination of transfers between connecting services might significantly shorten trip times between employment markets and targeted residential areas. Higher rankings tend to be in markets where relatively low frequencies or transfers between modes or jurisdictions make schedule coordination a more important factor in trip times.

- *Increased frequency of service:* The degree to which more frequent service could reduce wait times and have the potential to significantly increase the number of work trips. Higher rankings tend to be in medium or lower density markets where service frequencies are lower.

Private Transit Services

- *Subscription buses:* The degree to which there are residential target areas that are a substantial distance from large employment centers that cannot be easily reached by public transportation, particularly those centers with single, large employers that might operate a subscription service. Higher rankings tend to be in larger suburban markets with concentrated employment centers.

- *Shuttle services:* The degree to which there are large employment centers that are in proximity to fixed route transit service but are not directly served by these routes.. Higher rankings are more likely to be in suburban markets that have good transit service along central corridors, but with large employers that are beyond the main transit routes.

Demand Responsive Service

- *Point deviation:* The degree to which modification in the termini or the intermediate stop locations of existing fixed route service at the request of the passenger could improve access to smaller employment centers. Higher rankings tend to be in lower-density suburban or rural markets where specific niche markets for point deviation might be located.

- *Route deviation:* The degree to which modification in the route of existing fixed route service at the request of the passenger could improve access to smaller employment centers. Higher rankings tend to be in lower-density suburban or rural markets where specific niche markets for route deviation might be located.

- *Subsidized jitney/taxi service:* The degree to which sufficient fixed-route service might not be viable for large portions of targeted residential areas. Higher rankings tend to be in lower-density suburban or rural markets where this high-cost service may be necessary to supplement transit services.

- *Childcare transportation:* The degree to which van or bus service between child care centers and residences, employers and transit hubs would significantly shorten work trips. Higher rankings tend to be in markets where daycare, residents, employers and transit hubs are relatively dispersed, or where transit frequencies are relatively low.

Service Delivery

- *Transportation Management Association Services:* The degree to which employment markets have a critical mass of employers to either enhance existing TMA services or form a new TMA. Higher rankings tend to be in larger, more concentrated employment markets.

- *Transportation Brokerage Services:* The degree to which markets have the size and type of employment, and complexity of transportation choices, to make brokering transportation services with workers or employment agencies a viable option. Higher rankings tend to be in suburban markets that might attract additional workers from distant urban or rural areas, or in markets where there alternative transportation options could be more widely utilized.

- *Marketing and Advertising:* The degree to which additional dissemination of information for transportation demand management and service delivery enhancements can make a significant difference in access to these markets. Higher rankings tend to be in larger markets where marketing services target a large number of potential employers or users.

- *Transportation Cooperative Services:* The degree to which community transportation resources, such as church vans, school buses and other services can

be utilized to effectively fill gaps in transportation service. Higher rankings tend to be in lower density suburban or rural areas where there are significant gaps in transit service.

Transportation Demand Management Strategies

- *Bicycle Programs:* The degree to which gaps in transportation service, the distribution of employers and residences, and topography indicate that bicycle programs could be a significant contributor to improved job access, either as the primary mode of transportation or as a feeder to public transit. Higher rankings tend to be in medium or high density areas where topography is conducive to bicycle travel.

- *Van Pools:* The degree to which more remote suburban and rural markets, but ones with concentrated employment centers not substantially served by fixed route transportation, could support formation of van pools. Higher rankings tend to be in medium-density suburban markets with sufficient employment density to support van service.

- *Car Pools:* The degree to which more remote suburban and rural markets with dispersed employment centers not substantially served by fixed route transportation could support formation of car pools. Higher rankings tend to be in lower-density suburban and rural markets.

- *Guaranteed Ride Home Program:* The degree to which the limited availability of backup transit services, or the hours and lower frequency of existing service, would make a guaranteed ride home an attractive service for transit-dependent workers. Higher rankings tend to be in medium or lower density suburban and rural markets, or in areas where workers are commuting longer distances.

Table III.3
Rankings for Potential Service Enhancements in New York City Markets

	Kennedy Airport	LaGuardia Airport	Brooklyn Waterfront	Hylan Blvd/ West Shore
Potential Service Enhancements				
Public Transit Services				
New local routes	Low	Medium	Medium	Medium
Express routes	Medium	Medium	Low	Medium
Feeder routes	Low	Low	Medium-High	Low
Extension of existing service	Medium-High	Medium	Low-Medium	Low
Extended service hours	Medium-High	Low	Low	High
Modification of routes and stops	High	Low	Low-Medium	High
Timed transfers/schedule coordination	Medium	Low	Low	Medium
Increased frequency of service	Low	Medium	High	Medium
Private Transit Services				
Subscription buses	Low	Low	Low	Medium
Shuttle services	High	High	Medium-High	Medium
Demand Responsive Service				
Point deviation	Low	Low	Low	Medium
Route deviation	Medium	Low	Low	Medium
Subsidized taxi/jitney service	Low	Low	Low	Low
Childcare transportation	Medium	Medium	High	High
Service Delivery				
Transportation management association (TMA) services	Medium	Medium	High	Medium
Transportation brokerage services	High	High	Low	Medium
Transportation cooperative services	Low	Low	Medium	Medium
Marketing and advertising	High	High	Low	Low
Transportation Demand Management Strategies				
Bicycle programs	Low	Low	Medium	Medium
Van pools	Medium	Medium	Low	Low
Car pools	Medium-High	Medium	Low	Medium
Guaranteed ride home program	Medium	Medium	Low	Medium

Table III.4
Rankings for Potential Service Enhancements in Hudson Valley Markets

	Westchester I-287 Corridor	Southern Westchester Cities	Rockland Routes I – 287/59 & 303 Corridors	Route 22 Corridor	Route 6 Corridor
Potential Service Enhancements					
Public Transit Services					
New local routes	Low	Low	Low	High	Low
Express routes	Medium	Low	High	Low	Low
Feeder routes	Low	Low	High	Low	Medium
Extension of existing service	Low	Medium	High	Low	Medium
Extended service hours	High	High	High	High	High
Modification of routes and stops	Medium	High	Medium	Low	Medium
Timed transfers/schedule coordination	Medium	High	Medium	High	High
Increased frequency of service	High	Medium-High	High	High	High
Private Transit Services					
Subscription buses	Low	Low	Low	Low	Low
Shuttle services	Medium	Medium	Medium	Medium	Medium
Demand Responsive Service					
Point deviation	Low	Low	Low	Medium-High	Medium
Route deviation	Medium	Low	Medium	Medium-High	Low
Subsidized taxi/jitney service	Medium	Low	High	High	High
Childcare transportation	Medium-High	Medium-High	High	High	High
Service Delivery					
Transportation management associations (TMA) services	Medium	Medium	Low	Low	Low
Transportation brokerage services	High	Medium-High	Medium	Medium	Medium
Transportation cooperative services	Low	Low	High	High	High
Marketing and advertising	Medium	Low	High	Medium	Medium
Transportation Demand Management Strategies					
Bicycle programs	Medium	Medium	Medium	Low	Low
Van pools	High	Low	Low	Low	Low
Car pools	High	Low	Medium	Medium	Medium
Guaranteed ride home program	Medium	Medium	Medium	Medium	Medium

Table III.5
Rankings for Potential Service Enhancements in Long Island Markets

	Central Nassau	Northern Nassau	Route 110 Corridor	Central Suffolk	East End
Potential Service Enhancements					
Public Transit Services					
New local routes	Medium	Medium	Low	Medium	Low
Express routes	Medium-High	Medium-High	Medium	Medium	Medium
Feeder routes	Low	Low	Medium	Low	Low
Extension of existing service	Medium	Low	Low-Medium	Medium	Medium
Extended service hours	High	High	High	Medium-High	High
Modification of routes and stops	Low	Low	High	Medium	Medium-High
Timed transfers/schedule coordination	Medium-High	Low	High	Medium-High	Medium-High
Increased frequency of service	Medium-High	Medium	High	High	High
Private Transit Services					
Subscription buses	Low	Low	Medium	Low	Low
Shuttle services	Medium	Medium	Medium	Medium	Medium
Demand Responsive Service					
Point deviation	Low	Medium	Medium	Medium	Medium
Route deviation	Low	High	Low	Medium	Medium
Subsidized taxi/jitney service	Low	Medium	Low	Medium	High
Childcare transportation	Medium-High	Medium-High	Medium-High	Medium-High	High
Service Delivery					
Transportation management associations (TMA) services	Medium	Low	Medium	Medium	Low
Transportation brokerage services	High	Medium	High	Medium-High	Medium-High
Transportation cooperative services	Low	Medium	Low	Medium	High
Marketing and advertising	High	Medium	High	High	High
Transportation Demand Management Strategies					
Bicycle programs	Medium	Medium	Medium	Medium	Low
Van pools	Medium	Medium	High	Medium	Medium
Car pools	Medium	High	High	High	High
Guaranteed ride home program	Medium	Medium	Medium	Medium	Medium

Table III.6
Rankings for Potential Service Enhancements in New Jersey Markets

	Paramus	Meadowlands	Hudson Waterfront
Potential Service Enhancements			
Public Transit Services			
New local routes	Medium	Low	Low
Express routes	Low	Medium	Medium-High
Feeder routes	Low	Medium-High	Low
Extension of existing service	Low	Low	Low
Extended service hours	High	Medium	Low
Modification of routes and stops	Medium	Low	Medium
Timed transfers/schedule coordination	Medium	Medium-Low	Medium
Increased frequency of service	High	Medium	Medium-High
Private Transit Services			
Subscription buses	Low	High	Low
Shuttle services	Medium	Medium	Low
Demand Responsive Service			
Point deviation	Low	Low	Low
Route deviation	Low	Low	Low
Subsidized taxi/jitney service	Medium-Low	Low	Low
Childcare transportation	Medium	Medium	Medium
Service Delivery			
Transportation management associations (TMA) services	Low	Medium	Low
Transportation brokerage services	High	High	High
Transportation cooperative services	Medium	Medium	Low
Marketing and advertising	Medium	Medium	High
Transportation Demand Management Strategies			
Bicycle programs	Low	Low	Low
Van pools	Medium	High	Medium-High
Car pools	High	High	Medium
Guaranteed ride home program	Medium	Medium	Medium

Opportunity Rankings for Individual Market Areas

The market area descriptions on the following pages describe the rationales for the rankings in Tables III.3 – III.6. The descriptions also summarize the criteria used to designate the area as a priority market, identify sub-markets that include well-defined employment centers or corridors, and identify target residential areas with the potential to increase trips by low-income residents. These residential areas, which can be either within the boundaries of the employment market, contiguous to it, or within a feasible commuting distance, represent places that have a strong potential to place additional low-income residents in jobs within the employment market. These areas were identified through a combination of indicators from the plan's transportation model and input from the plan's community involvement process.

1. Kennedy Airport

Location: Southeast Queens

Priority Market Criteria

- Employment Size: *High* - 37,000 jobs, strong career opportunities
- Employment Growth: *Medium* - 13% growth from 1993-1999
- Modeled Trip Potential: *Medium*
- Community/Agency Input: *High*

Sub-Markets

None

Residential Target Areas

Job developers, social service agency representatives, and job seekers in Manhattan, Brooklyn, Queens, the Bronx and Nassau all identified Kennedy Airport as a destination with untapped job opportunities for residents of their counties. Transportation modeling found that there is some potential from all of these counties, but estimated that the greatest potential may be in communities in southeast Queens, such as Far Rockaway and Jamaica. Enhancements to local bus service, such as extending service hours or having additional routes serve the cargo area, are the highly ranked service enhancements that would have the greatest impact on nearby communities in Queens or Brooklyn. For more distant locations, the most important potential enhancements are expanding the use of on-airport private shuttles to connect with subway, bus and planned light rail service, organizing car pools, and using transportation brokers to help identify and utilize alternative transportation services.

Opportunity Rankings for Kennedy Airport

High	***Low***
Modification of routes and stops	New local routes
Shuttle services	Feeder routes
Transportation brokerage services	Increased frequency of service
Marketing and advertising	Subscription buses
	Point deviation
Medium-High	Subsidized taxi/jitney service
Extension of existing service	Transportation cooperative services
Extended service hours	Bicycle programs
Car pools	

Medium

Express routes
Timed transfers/schedule coordination
Route deviation
Childcare transportation
Transportation management association services
Van pools
Guaranteed ride home program

Description of Opportunity Rankings

- **Public Transit Services:** A ***High*** ranking was given to Modification of Routes and Stops. The Airport is currently well served by public transit with 8 separate bus routes travelling within the district (8 serving Queens, 1 Brooklyn, 1 Nassau) and with a free Port Authority shuttle bus connecting the airport to A train subway service at the Howard Beach station. However, workplace locations differ somewhat from passenger destinations. Through minor modification of routes, or the addition of stops along existing routes, access to workplaces could be improved. ***Medium-high*** rankings were given for Extension of Existing Service and for Extended Service Hours. Only two of the 8 routes provide service to the cargo area. Extension of Selected Routes could provide better access to opportunities in this part of the airport. In addition, many of the businesses in and around the airport offer employment opportunities with non-traditional working hours. Several of the existing transit routes offer late night service. However, by extending hours of operation of other routes, additional work trips may become accessible by public transit. A ***Medium*** ranking was given for Express Routes and Timed Transfers/Schedule Coordination. Express Routes

from outlying communities into Kennedy Airport can provide competitive transportation due to its reduced travel time over traditional line-haul transit service. It is necessary, however, that pick up and drop off locations are carefully selected to maximize potential ridership on these services. ***Low*** rankings were given to the addition of new Local Routes, Feeder Routes and Increased Frequency of Service, as Kennedy Airport currently has comprehensive and frequent service from local routes.

- **Private Transit Services:** A ***High*** ranking was given to Shuttle Services because of its current success and future potential. Employee parking at Kennedy is limited and one solution is providing shuttle services to transit services or remote parking facilities. In addition to the Port Authority shuttle and other free shuttles operated by airlines, several private operators provide dedicated shuttle services between the Airport and the A and C subways as well as to the Long Island Railroad. Fares of private operator services, however, range from $10 to $68 dollars and are too high for employees to pay as part of the cost of a daily commute. Free shuttles also connect to Q6 bus service. There is some immediate potential for expanding the use of private shuttles for low-wage workers. However, the greatest potential is for expanded shuttle service to link with the JFK AirTrain, a light rail service that will connect to both commuter rail and subway service and that is scheduled for completion in 2003. Subscription Buses received a ***Low*** ranking because there is unlikely to be enough demand from individual employers. The cost per passenger would be relatively high compared with that of other potential transit investments.

- **Demand Responsive (Non-Fixed Route) Service:** ***Medium*** rankings were given to Route Deviation services and Childcare Transportation. Route deviation is an alternative to route modification to improve access to work locations. Childcare transportation in residential areas serving the airport that also connects to transit nodes could make the commute feasible for additional job seekers. ***Low*** Rankings were given to Point Deviation and Subsidized Taxi/Jitney Service. The Kennedy Airport service area is conducive to linear circulation patterns rather than focused on several specific hubs. Therefore, traffic patterns in the area do not support the point deviation concept. The comprehensive bus service to the airport makes subsidized taxis or jitney services a low priority.

- **Service Delivery:** ***High*** rankings were given to Transportation Brokerage Services and Marketing and Advertising. The large concentration of employers, the particular hiring requirements of the aviation industry and the complexity of reaching the airport from distant locations create the opportunity for transportation brokers to work with employment specialists to solve the transportation constraints of welfare-to-work clients. These same conditions give Marketing and Advertising an opportunity to promote the use of alternative transportation services. A ***Medium*** ranking was given to Transportation Management Association (TMA) services, which consists of services provided by

private employers to encourage alternative transportation services. Kennedy Airport is already served by CommuterLink, a transportation demand management (TDM) organization, so an additional organization is unlikely to be as effective as providing additional resources for the TDM to expand membership and support among private employers. Transportation cooperatives received a ***Low*** ranking as they are more appropriate in lower density areas.

- **Transportation Demand Management Strategies:** A ***Medium-High*** ranking was given to Car Pools. Although car pools are difficult to implement in urban areas that have good transit access, some of the longer commutes to the airport may be aided by these services. A ***Medium*** ranking was given to Van Pools and Guaranteed Ride Home Services. Van pools require higher volumes than car pools and more consistent scheduling to work effectively. A guaranteed ride home can supplement other strategies by providing a safety net in emergencies for workers making a longer commute. Bicycle programs received a ***Low*** ranking because of safety issues in navigating airport roadways.

2. LaGuardia Airport

Location: Northwest Queens

Priority Market Criteria

- Employment Size: *Low* - 9,000 jobs, strong career opportunities
- Employment Growth: *Low* – no change from 1993-1999
- Modeled Trip Potential: *Low*
- Community/Agency Input: *High*

Sub-Markets

None

Residential Target Areas

The areas with greatest potential to increase trips by low-income residents to LaGuardia are dispersed, primarily throughout Queens and the Bronx, with some potential from more distant locations in Brooklyn, Nassau or Westchester. Private services, such as expanded use of on-airport shuttle service, transportation brokers and marketing and advertising, are the only highly ranked enhancements and would be applicable to all of these areas. Of the medium ranked enhancements, new local bus routes, extension of existing bus service and increased frequency of service would be most applicable to Queens communities. Express routes, van pools, car pools and guaranteed ride home services would be more applicable to locations in other counties. Childcare transportation and TMA services would be applicable to all locations.

Opportunity Rankings for LaGuardia Airport

High	***Low***
Shuttle services	Feeder routes
Transportation brokerage services	Extended service hours
Marketing and advertising	Modification of routes and stops
	Timed transfers/schedule coordination
Medium	Subscription buses
New local routes	Point deviation
Express routes	Route deviation
Extension of existing service	Subsidized taxi/jitney service
Increased frequency of service	Transportation cooperative services
Childcare transportation	Bicycle programs
Transportation management association services	
Van pools	
Car pools	
Guaranteed ride home program	

Description of Opportunity Rankings

- **Public Transit Services:** A ***Medium*** ranking was given for the implementation of new Local Routes, Express Routes, Extension of Existing Services, and Increased Frequency of Service. There are currently four routes that provide service to La Guardia, 3 from Queens and one from Manhattan. Additional direct routes, or extension of existing routes, could supplement the existing airport services by reducing the need to transfer between routes. ***Low*** rankings were given to Feeder Services, Extended Service Hours, Modification of Routes and Stops, and Timed Transfers/Schedule Coordination because of the extent of existing coverage.

- **Private Transit Services:** A ***High*** ranking was given to Shuttle Service. Similar to Kennedy Airport, the success of passenger shuttles points to an opportunity to connect workers to additional transit nodes and work locations. Subscription Buses received a ***Low*** ranking because there was unlikely to be sufficient demand from individual employers.

- **Demand Responsive (Non-Fixed Route) Service:** A ***Medium*** ranking was given to the provision of Childcare Transportation. Childcare transportation in residential areas serving the airport that also connects to transit nodes could make the commute feasible for additional job seekers. A ***Low*** ranking was given to the other demand responsive services including Point Deviation, Route

Deviation, and Subsidized Taxi/Jitney Services. Traffic patterns in and around LaGuardia are more supportive of fixed transportation services than deviated services.

- **Service Delivery:** ***High*** rankings were given to Transportation Brokers and Marketing and Advertising. Similar to Kennedy Airport, the concentration of employers, the particular hiring requirements of the aviation industry and the complexity of reaching the airport from distant locations create the opportunity for transportation brokers to work with employment specialists to solve the transportation constraints of welfare-to-work clients. These same conditions give Marketing and Advertising an opportunity to promote the use of alternative transportation services. A ***Medium*** ranking was given to Transportation Management Association (TMA) services, which consists of services provided by private employers to encourage the use of alternative transportation services. Kennedy Airport is already served by CommuterLink, a transportation demand management (TDM) organization, so an additional organization is unlikely to be as effective as providing additional resources for the TDM to expand membership and support among private employers. Transportation cooperatives received a ***Low*** ranking as they are more appropriate in lower density areas.

- **Transportation Demand Management Strategies**: A ***Medium*** ranking was given to Car Pools, Van Pools and Guaranteed Ride Home Services. Car and van pools have some potential but are likely to be more difficult to implement at LaGuardia than Kennedy because there are fewer employers to provide the scale of job opportunities needed to schedule groups of riders. A guaranteed ride home can supplement other strategies by providing a safety net in emergencies for workers making a longer commute. Bicycle programs received a ***Low*** ranking because of safety issues in navigating airport roadways.

3. Brooklyn Waterfront

Location: Greenpoint to Sunset Park along the East River

Priority Market Criteria

- Employment Size: *High* - 67,000 jobs, many good wage entry-level jobs
- Employment Growth: *High* - 21% growth from 1993-1999
- Modeled Trip Potential: *Medium*
- Community/Agency Input: *High*

Sub-Markets

Employment along the Brooklyn Waterfront still consists largely of industrial and distribution jobs. However, there are several distinct neighborhoods—Greenpoint, Williamsburg, Old Brooklyn, Red Hook and Sunset Park. From both a labor market and transportation perspective, it is helpful to segment the waterfront into two sub-markets:

1) ***Greenpoint-Williamsburg,*** including the Brooklyn Navy Yard and Old Brooklyn, is a changing employment market with residence-based services replacing some of the manufacturing base. This area also has a number of subway services providing direct access to Manhattan, Queens and other parts of Brooklyn.
2) ***Red Hook-Sunset Park*** in the southern portion of the waterfront has maritime as well as manufacturing activity. Sunset Park is served by a single north-south subway, the N & R, while there is no subway service in Red Hook itself.

Residential Target Areas

Communities with the greatest potential to place additional low-income workers in waterfront jobs are dispersed throughout Brooklyn and Queens, as well as from within the waterfront communities themselves. Areas with the strongest potential to connect residents to jobs in Greenpoint and Williamsburg are located in north-central Brooklyn and south-central Queens. Communities with the strongest potential for Red Hook and Sunset Park are located in east and south Brooklyn. Highly ranked service enhancements, including feeder and shuttle services between employers and transit nodes, increased frequency of bus services, childcare transportation and TMA services, would be applicable for communities connecting to both waterfront sub-markets.

Opportunity Rankings for the Brooklyn Waterfront

High	***Low-Medium***
Increased frequency of service	Extension of existing service
Childcare transportation	Modification of routes and stops
Transportation management association services	
	Low
Medium-High	Express routes
Feeder routes	Extended service hours
Shuttle services	Timed transfers/schedule coordination
	Subscription buses
Medium	Point deviation
New local routes	Route deviation
Transportation cooperative services	Subsidized taxi/jitney service
Bicycle programs	Marketing and advertising
	Van pools
	Car pools
	Guaranteed ride home program
	Transportation brokerage services

Description of Opportunity Rankings

- **Public Transit Services:** ***High*** rankings were given for Increased Frequency of Service. During peak periods, bus services run as high as every 6 minutes, but hourly during the night. Given the large number of jobs with non-traditional working hours in this neighborhood it may warrant the provision of more frequent nighttime service particularly during shift changes. A ***Medium-High*** ranking was given to the development of Feeder Routes. Much of the Brooklyn Waterfront is not directly served by subway, and feeder routes to subway stations would increase coverage by connecting to existing Brooklyn Waterfront routes. A ***Medium*** ranking was given to Local Routes and a ***Low-Medium*** ranking was applied to the Extension of Existing Service and Modification of Routes and Stops. There may be some potential to reorient service to reflect recent development patterns. The implementation of new Express and Local Routes, Extended Service Hours, and Timed Transfers/Schedule Coordination received ***Low*** rankings, based on the coverage provided by existing transit services.

- **Private Transit Services:** The development of Shuttle Services received a ***Medium-High*** ranking. Employers not directly served by local bus routes should be encouraged to provide shuttle services for their employees who may

otherwise not be able to reach their employer. Employers can use shuttles to access existing transit services or hubs. Subscription Buses received a ***Low*** ranking because there was unlikely to be sufficient demand from individual employers to support such a service.

- **Demand Responsive (Non Fixed-Route) Service:** A ***High*** ranking was given to the provision of Childcare Transportation. Childcare transportation in waterfront communities could provide direct service between places of residence, childcare facilities and place of work, expanding the number of work choices. A ***Low*** ranking was given to the other demand responsive services including Point Deviation, Route Deviation, and Subsidized Taxi/Jitney Services based on the density of existing services. Route and Point Deviation would adversely affect on time performance and dependability of services in this neighborhood.

- **Service Delivery:** Transportation Management Associations were assigned a ***High*** ranking. The concentration of industrial employers with similar needs, and an existing infrastructure of employer organizations, make this a viable option. A ***Medium*** ranking was assigned to Transportation Cooperatives. The community infrastructure exists to organize these services, and there could be some value in reaching waterfront locations from more distant neighborhoods, but the need is not as great as it is in lower density areas. Transportation Brokers and Marketing and Advertising were assigned a ***Low*** ranking. Waterfront employers should be targeted as part of any regional or citywide brokering or marketing strategy, but there is probably insufficient demand to implement a service targeted primarily to waterfront communities.

- **Transportation Demand Management Strategies:** Bicycle Programs were assigned ***Medium*** rankings. Bicycles can provide an inexpensive mode of transportation to waterfront sites that are not directly served by transit, but the need is not as great as in lower density areas. ***Low*** rankings were given to Van and Car Pools and Guaranteed Ride Home programs since there is little need based on the level of transit service and the location of residential target areas.

4. Hylan Boulevard/West Shore

Location: Staten Island's West Shore and Hylan Boulevard corridor (zip codes 10302, 10309 and 10314)

Priority Market Criteria

- Employment Size: *Medium* - 30,000 jobs, moderate share for entry-level
- Employment Growth: *High* - 41% growth from 1993-1999
- Modeled Trip Potential: *High*
- Community/Agency Input: *High*

Sub-Markets

This part of Staten Island covers two distinct sub-markets, both characterized by rapid growth and entry-level opportunities concentrated in retail services:

1) The ***Hylan Boulevard Corridor*** running north-south on the eastern side of Staten Island is one of the borough's main commercial corridors, with growth most rapid in the southern portion of the corridor.

2) Staten Island's ***West Shore*** is less densely developed than the northern and eastern portions of the island, but has rapid growth of residential-based services dispersed throughout the area.

Residential Target Areas

Communities with the greatest potential to place additional low-income workers in this market are dispersed throughout Staten Island. With no direct rail service from other counties, there is only limited potential to place workers from outside of Staten Island, with South Brooklyn offering the most potential for inter-county trips.

Opportunity Rankings for Hylan Blvd/West Shore

High	***Low***
Extended service hours	Feeder routes
Modification of routes and stops	Extension of existing service
Childcare transportation	Subsidized taxi/jitney service
	Marketing and advertising
Medium	Van pools
New local routes	
Express routes	
Timed transfers/schedule coordination	
Increased frequency of service	
Shuttle services	
Subscription buses	
Point deviation	
Route deviation	
Transportation management association services	
Transportation brokerage services	
Transportation cooperative services	
Car pools	
Bicycle programs	
Guaranteed ride home program	

Description of Opportunity Rankings

Public Transit Services: ***High*** rankings were given for Extended Service Hours and Modification of Routes and Stops. 82% of the worktrips to this target zone are generated from residences within Staten Island. Therefore additions to and modifications of existing local service are key to improving access to jobs in this district. The Hylan Blvd/West Shore district is served by several local and express bus routes. In addition, the Staten Island Railroad runs parallel to Hylan Boulevard, offering rapid transit service in a north-south direction. However, additional nighttime and weekend bus service could expand opportunities to employers with late workshifts, particular retail. In addition, given the walking distance between existing routes and residential and employment areas, and changing development patterns, there may be opportunities to improve job access by modifying these routes. ***Medium*** rankings were given for the implementation of New Local Routes, Express Routes, Timed Transfers/Schedule Coordination and Increased Frequency of Service. The large area and medium density of Staten Island lead to long commutes by transit.

New routes may be a possibility, particularly in rapidly growing parts of the target area and residential communities, but a combination of increased frequency and changes in schedule could also reduce the length of these commutes. ***Low*** rankings were given to Feeder Services and Extension of Existing Service given the coverage provided by existing service.

- **Private Transit Services:** ***Medium*** ratings were given to both of the Private Transit enhancements: Subscription Buses and Shuttle Services. A few locations with a concentration of employment opportunities and potential employees may provide opportunities for private transportation options that may help to bridge the gap between existing transit facilities and work locations.

- **Demand Responsive (Non-Fixed Route) Service:** A ***High*** ranking was given to the Provision of Childcare Transportation. Given the dispersion of residence and work locations, transportation that links both of these to childcare facilities in a single trip offers a strong opportunity to significantly reduce commuting times for working parents. ***Medium*** rankings were given to Point Deviation, Route Deviation and Subsidized Taxi/Jitney Service. The dispersion of work locations gives some potential for point and route deviation to permit fixed route service to serve a wider number of employment locations, but at the cost of longer route times and more variable scheduling. A ***Low*** ranking was given to Subsidized Taxi/Jitney Service which is more appropriate in lower density areas.

- **Service Delivery:** A ***Medium*** ranking was given to Transportation Management Associations (TMAs), Transportation Brokers and Transportation Cooperatives. These have some potential for organizing and linking employer-provided services and community services. However, both the current level of transit service and the relative dispersion of employers and residences may make these difficult to implement. Marketing and Advertising were given a ***Low*** ranking, primarily because employer concentrations do not appear to be large enough to allow these services to be targeted effectively.

- **Transportation Demand Management Strategies:** ***Medium*** rankings were given to Bicycle Programs, Car Pools and Guaranteed Ride Home Programs. Both the frequency and hours of existing transit service indicate some potential for these services to supplement fixed-route service. Van Pools were assigned a ***Low*** ranking because there are few large enough employment concentrations that are not served by public transportation.

5. White Plains/Westchester I-287 Corridor

Location: Central Westchester County from Tarrytown to Rye

Priority Market Criteria

- Employment Size: *High* - 112,000 jobs, moderate share for entry-level
- Employment Growth: *Medium* - 8% growth from 1993-1999
- Modeled Trip Potential: *Medium*
- Community/Agency Input: *High*

Sub-Markets

This is a large and diverse employment market along one of the region's major Interstate routes. It contains three distinct submarkets, each with about a third of the market area's employment:

1) ***White Plains*** is a regional hub with entry-level opportunities in office, retail and health services and a high density of transit services.
2) The area ***East of White Plains*** is a diverse market containing a number of corporate office parks, town centers and a large job center on the eastern end in Rye.
3) The area ***West of White Plains*** to Tarrytown has a larger share of manufacturing and distribution jobs than the other parts of the corridor, in additional to a substantial number of retail jobs.

Residential Target Areas

This market has particular potential to provide additional job opportunities to low-income residents in several communities in Westchester, the Bronx and Rockland counties. It is also a target for reverse commuters of all income levels from New York City. Residents of White Plains, Port Chester and other central Westchester communities could access additional opportunities throughout the corridor with public transit service enhancements that include extending bus service hours and increasing frequency of service, and some limited privately provided service, such as shuttle services or subsidized taxi/jitney service. Residents of Yonkers, Mt. Vernon and other locations in southern Westchester would benefit from these services as well as some additional services that are more likely to be provided by private or nonprofit entities, including childcare transportation and transportation brokerage services. Some highly ranked service enhancements, such as van and car pools, are more applicable for residents of the Bronx or Rockland.

Opportunity Rankings for White Plains/Westchester I-287 Corridor

High	***Low***
Extended service hours	New local routes
Increased frequency of service	Extension of existing service
Transportation brokerage services	Feeder routes
Van pools	Subscription buses
Car pools	Point deviation
	Transportation cooperative services

Medium-High
Childcare transportation

Medium
Express routes
Modification of routes and stops
Timed transfers/schedule coordination
Shuttle services
Route deviation
Subsidized taxi/jitney service
Transportation management association services
Marketing and advertising
Bicycle programs
Guaranteed ride home program

Description of Opportunity Rankings

- **Public Transit Services:** Public transit service includes service on all three MetroNorth lines, bus service on several Bee-Line routes, and express service on TZX lines from Rockland County. ***High*** rankings were given for Extended Service Hours and Increased Frequency of Service. The combination of high employment concentrations, industries and businesses with evening and weekend shifts, and the limited frequency and hours of existing service indicate a strong potential for these options. A ***Medium*** ranking was given for Express Service, Modification of Routes and Stops, and Timed Transfers/Schedule Coordination. The substantial distance between the corridor and residential service areas indicate that additional express service may be an option. Route modification could also be beneficial in addressing changing patterns of employment location, particularly in areas experiencing substantial growth. Timed transfers and schedule modifications could benefit inter-county travel if they improve connections with commuter rail and express service. ***Low*** rankings

were given to New Local Routes, Extension of Existing Service and Feeder Services because of the extent of existing coverage.

- **Private Transit Services:** The Bee-Line System and several employers already run successful shuttle buses. A ***Medium*** ranking was given to private Shuttle Service because there are still many large employers that do not have direct transit service, but are in the vicinity of transit routes and nodes. Subscription Buses received a ***Low*** ranking because there was unlikely to be sufficient demand from individual employers to support higher volume services. If clusters of employers at office parks can be organized through a mechanism such as a TMA, the potential for subscription bus service would increase.

- **Demand Responsive (Non-Fixed Route) Service:** A ***Medium-High*** ranking was given to Childcare Transportation, which may be applicable in two situations: as a supplement to transit in areas where trip chaining makes the current commute to the corridor infeasible, or as a stand-alone service that connects parents to both childcare and employment. The first is most appropriate for longer commutes, such as from Yonkers to the White Plains area. The second is most appropriate when the place of residence, childcare and employment are in closer proximity, such as for people who both live and work in the White Plains area. ***Medium*** rankings were given to Route Deviation and Subsidized Taxi/Jitney Service. Route deviation may be applicable for either public or private transit service in evening hours to reach employers with late shift operations that are off of the main transit routes. Subsidized Taxi/Jitney Service could be part of a comprehensive package of service to welfare-to-work clients and others to reach employers who are not served by transit. A ***Low*** ranking was given to Point Deviation, because the stop locations along existing transit routes do not appear to be an issue.

- **Service Delivery:** A ***High*** ranking was given to Transportation Brokers because the corridor is a large market with complex transportation issues that a transportation broker can help to resolve. A ***Medium*** ranking was given to TMAs and Marketing and Advertising. Both of these services are already taking place in the corridor, but there may be opportunities to target these more effectively to both employers of entry-level workers and low-income job-seekers. A ***Low*** ranking was given to Transportation Cooperatives because the residential areas feeding this corridor are probably too dispersed to effectively develop the organizational structure for a cooperative.

- **Transportation Demand Management Strategies:** Van Pools and Car Pools were given a ***High*** ranking. Even though Metropool and the Smart Commute program already provide these services, this may be a prime market for expanding participation by entry-level workers and low-income job seekers. The large number and diversity of employment centers along the route and the long commuting distances to residential locations make these services viable. A

Medium ranking was given to Bicycle Programs and Guaranteed Ride Home services. Although infrastructure and terrain can limit the utility of bicycle programs, there is some potential for innovative programs to provide the training and services needed to advance this low-cost commuting option. Guaranteed ride home service can provide a safety net in case of emergency for workers making long or complicated commutes.

6. Southern Westchester Cities

Location: Yonkers, Mt. Vernon and New Rochelle in southern Westchester County

Priority Market Criteria

- Employment Size: *High* - 73,000 jobs, high share for entry-level
- Employment Growth: *Low* – 4% growth from 1993-1999, some high-growth areas
- Modeled Trip Potential: *Medium*
- Community/Agency Input: *High*

Sub-Markets

Each of the three cities in this market have downtown employment centers with retail and office opportunities. Industrial jobs still have a strong presence, particularly in Mt. Vernon and parts of Yonkers. However, two sub-markets have particular relevance for job access and reverse commute services:

1) ***Downtown New Rochelle*** is a retail and office center that grew rapidly in the 1990s and has strong prospects for future growth.
2) ***Central Avenue Corridor*** is one of the primary retail corridors in Westchester County.

Although both of these sub-markets are well served by transit, there are opportunities to improve access for job seekers who must make multiple transfers or commute in off-peak hours when frequency of service may be low.

Residential Target Areas

Southern Westchester is a market with potential for low-income residents of Westchester, the Bronx and Manhattan. It is also a reverse commute market for other New York City residents. Two areas have particularly strong potential. One is for improving access in an east-west direction for southern Westchester residents through modifications of bus schedules, stops and service hours, and possibly by supplementing transit services with private and nonprofit services, such as childcare transportation and transportation brokerage services. The second is for improving access for residents in the central and northern sections of the Bronx through similar bus service modifications and supplemental services, and possibly by extending some bus routes to improve connections between residential areas and employment centers.

Opportunity Rankings for Southern Westchester Cities

High	***Low***
Extended service hours	New local routes
Modification of routes and stops	Express routes
Timed transfers/schedule coordination	Feeder routes
	Subscription buses
Medium-High	Point deviation
Childcare transportation	Route deviation
Transportation brokerage services	Subsidized taxi/jitney service
Increased frequency of service	Transportation cooperative services
	Marketing and advertising
Medium	Van pools
Extension of existing service	Car pools
Shuttle services	
Transportation management association services	
Bicycle programs	
Guaranteed ride home program	

Descriptions of Opportunity Rankings

- **Public Transit Services:** ***High*** rankings were given for Extended Service Hours, Modification of Routes and Stops, and Timed Transfers/Schedule Coordination. A large portion of the entry-level employment opportunities for this market are in retail and health services, many of which require evening or weekend shifts. Although this area has a high concentration of both bus and commuter rail service, many of the bus routes in southern Westchester end service in the early evening or have limited frequencies at off-peak hours. Extending the hours of service for these routes may assist in meeting the needs of retail and other workers with non-traditional work schedules. In addition, modification of routes and stops may help potential workers reach new employment locations that may locate beyond easy access of existing service. Schedule coordination, either between east-west and north-south bus routes, or between bus and commuter rail service, can also expand access to the primary employment centers. A ***Medium-High*** ranking was given to Increased Frequency of Service. Although most routes already have a high frequency of service in peak hours, increased frequencies in off-peak and on east-west routes could enhance job access. A ***Medium*** ranking was given for Extension of Existing Service. Extension of existing routes, particularly those that connect Westchester and the Bronx, may also have some potential. ***Low*** rankings were given to New

Local Routes, Express Routes and Feeder Services since there is currently a high level of transit service in the area.

- **Private Transit Services:** A ***Medium*** ranking was given to the development of Shuttle Service. Some areas, such as New Rochelle, have recently seen significant levels of commercial development, and a shuttle bus service linking existing transit service and these developments would provide improved access for both employees of these businesses and their customers. A ***Low*** ranking was designated for Subscription Buses. The scale and concentration of individual employers in southern Westchester are not likely to be large enough to support higher volume subscription bus service.

- **Demand Responsive (Non-Fixed Route) Service:** A ***Medium-High*** ranking was given to the provision of Childcare Transportation. Particularly for longer commutes from the Bronx or for Westchester residents with multiple stops, childcare transportation that also serves as a feeder to transit service can reduce a significant transportation barrier. A **Low** ranking was given to the other demand responsive services including Point Deviation, Route Deviation, and Subsidized Taxi/Jitney Services. Transit routes provide good coverage and demand responsive service would be duplicative in most cases.

- **Service Delivery:** A ***Medium-High*** ranking was assigned to Transportation Brokerage Services. Transportation brokers can help develop and coordinate services for workers who are unfamiliar with the area or have complicated commutes. Transportation Management Associations (TMA) Services were given a ***Medium*** ranking. There may be some potential for employers in growing employment centers to form a TMA to address transportation issues and labor shortages. A ***Low*** ranking was given to Transportation Cooperative Services and Marketing and Advertising. Relatively good transit coverage and a dispersion of targeted residential communities work against cooperatives or a targeted marketing effort.

- **Transportation Demand Management Strategies:** A ***Medium*** ranking was given to Bicycle and Guaranteed Ride Home service. Although infrastructure and terrain can limit the utility of bicycle programs, there is some potential for innovative programs to provide the training and services needed to advance this low-cost commuting option. Guaranteed ride home service can provide a safety net in case of emergency for workers making long or complicated commutes. Van and Car Pools received a ***Low*** ranking as there does not appear to be the right combination of low transit service, employment concentrations and long commutes to support these.

7. Rockland Routes I-287/59 & 303 Corridors

Location: Southern Rockland County from Nyack to Suffern and from West Nyack to the New Jersey border.

Priority Market Criteria

- Employment Size: *High* - 40,000 jobs, high share for entry-level
- Employment Growth: *High* - 18% growth from 1993-1999
- Modeled Trip Potential: *High*
- Community/Agency Input: *High*

Sub-Markets

This market is defined by the intersection of three major highways that connect the major employment centers in Rockland County. Two distinct sub-markets include the following:

1) The east-west corridor along ***Routes 59 and I-287*** is a rapidly growing location of retail service jobs, particularly in West Nyack.

2) ***Route 303***, running north-south to the New Jersey border, is characterized by a high density of manufacturing job opportunities.

Residential Target Areas

Communities in Rockland, Westchester, Bergen County and the Bronx all have potential to improve job opportunities for low-income residents through improved job access to this employment market. For communities in and near these corridors, such as Spring Valley and Haverstraw, public transit enhancements such as extended hours of bus service and increased frequency of service, and possibly supplemented by private services such as subsidized taxi/jitney service, childcare transportation and transportation cooperatives, have the greatest potential to improve job access.

For reverse commutes from Westchester, Bergen County or the Bronx, enhancements to express bus service, schedule coordination with other services, and some use of car pools and guaranteed ride home services offer the most potential.

Opportunity Rankings for Rockland Routes I-287/59 & 303 Corridors

High	***Low***
Express routes	
Extended service hours	Subscription buses
Increased frequency of service	Point deviation
Feeder routes	
Extension of existing service	Transportation management association services
Childcare transportation	Van pools
Subsidized taxi/jitney service	New local routes
Transportation cooperative services	
Marketing and advertising	
Medium	
Modification of routes and stops	
Timed transfers/schedule coordination	
Shuttle services	
Route deviation	
Transportation brokerage services	
Bicycle programs	
Guaranteed ride home program	
Car pools	

Description of Opportunity Rankings

- **Public Transit Services:** ***High*** rankings were given for Express Service, Extended Service Hours, Increased Frequency of Service, Feeder Routes and Extension of Existing Service. Expanded express service is a priority, particularly for intercounty trips. Transport of Rockland provides night service on some routes, but additional evening and weekend service would address the growth in employment with off-peak work shifts. Similarly, improved service frequency would enhance job access in an area with long commuting distances and relatively low frequencies. Feeder services appear to have particular potential in communities where street configuration or demand cannot support full-size buses. Route extension is also a high priority in this market, where employment and residential concentrations exist beyond the terminus of some routes. A ***Medium*** ranking was given for Modification of Routes and Stops and Timed Transfers/Schedule Coordination. Route modification may address changing demand patterns in rapidly growing areas, and Timed Transfers/Schedule

Coordination is especially important as missed connections in this area can lead to significant increases in total trip times for persons required to transfer to reach their destination. ***Low*** rankings were given to New Local Routes, as service already exists along the major corridors.

- **Private Transit Services:** A ***Medium*** ranking was given to the development of private Shuttle Service. The corridors have some concentrations of employers who could pool their resources to provide connections from public transit to business locations. A ***Low*** ranking was designated for Subscription Buses as there are few large-scale businesses that may have enough employees to accommodate larger volume subscription services.

- **Demand Responsive (Non-Fixed Route) Service:** A ***High*** ranking was given to Subsidized Taxi/Jitney Service and the provision of Childcare Transportation. The dispersed locations of employers makes this option more attractive than in higher density areas, either as a county-wide initiative or for employers who may find taxi/jitney vouchers to be a cost-effective recruiting and retention tool. Additionally, provision of Childcare Transportation services is more important in low-density areas with more infrequent transit service and longer commuting distances. A ***Medium*** ranking was given to Route Deviation, which may be viable in some lower-density areas. A ***Low*** ranking was given to Point Deviation. Major activity centers appear to be well served by fixed route services, although frequency and service hours need to be addressed as discussed above.

- **Service Delivery:** A ***High*** ranking was given to Transportation Cooperatives and Marketing and Advertising. Cooperatives are likely to be more effective in low-density areas where community transportation resources can address gaps in transit service. Marketing and Advertising has potential to improve transit ridership for low-income workers in this market, particularly if combined with substantial service enhancements. Transportation Brokers were given ***Medium*** rankings. Brokers may be effective in developing and coordinating alternative services, although low densities of both employers and residents may make it difficult to reach sufficient economies of scale.

- **Transportation Demand Management Strategies:** A ***Medium*** ranking was given to Bicycle Programs, Car Pools, and Guaranteed Ride Home Service. Although infrastructure and terrain can limit the utility of bicycle programs, there is some potential for innovative programs to provide the training and services needed to advance this low-cost commuting option. Guaranteed ride home service can provide a safety net in case of emergency for workers making long or complicated commutes. Car pools could provide alternative service to employment centers that are difficult to reach at all hours by transit. Van Service received a ***Low*** ranking because it requires larger scale employment to be effective.

8. Route 22 Corridor

Location: Brewster to Pawling in Putnam and Dutchess Counties

Priority Market Criteria

- Employment Size: *Low* - 10,000 jobs, high share for entry-level
- Employment Growth: *Medium* - 12% growth from 1993-1999
- Modeled Trip Potential: *High*
- Community/Agency Input: *High*

Sub-Markets

None

Target Residential Areas

Communities in eastern Putnam, primarily Brewster, have the most potential to provide additional entry-level workers to employers along Route 22. Northern Westchester also has some potential to provide additional workers. Most of the highly ranked service enhancements apply throughout this area.

Opportunity Rankings for the Route 22 Corridor

High	***Low***
New local routes	Express routes
Extended service hours	Feeder routes
Timed transfers/schedule coordination	Extension of existing service
Increased frequency of service	Modification of routes and stops
Subsidized taxi/jitney service	Subscription buses
Childcare transportation	Transportation management association services
Transportation cooperative services	Van pools
	Bicycle programs
Medium-High	
Point deviation	
Route deviation	
Medium	
Shuttle services	
Transportation brokerage services	
Marketing and advertising	
Guaranteed ride home program	
Car pools	

Description of Opportunity Rankings

- **Public Transit Services:** ***High*** rankings were given for New Local Routes, Extended Service Hours, Timed Transfer /Schedule Coordination and Increased Frequency of Service. Current public transit services along the Route 22 Corridor are infrequent with limited early morning or evening service. Development of new routes extending farther north along Route 22 could assist workers seeking employment in this area, as would extended service hours, increased frequencies and schedule coordination with commuter rail and connecting bus service. ***Low*** rankings were given to all other Public Transit Enhancements including: Express Routes, Feeder Routes, Extension of Existing Services, and Route or Schedule Modifications. The relatively low density and limited existing transit services in the Route 22 Corridor attest to the primary need for local transit services as opposed to express services in this district. In addition, Feeder Services generally are most successful when they feed into a high density/high frequency corridor.

- **Private Transit Services:** A ***Medium*** ranking was given to the development of Shuttle Service. To provide employees with an alternative to public transportation, area businesses could combine resources to provide shuttle services for area employees. These services would provide connections from existing transit services to specific (contributing) businesses within the Route 22 service area. A ***Low*** ranking was designated for Subscription Buses as there are limited large scale employers which could support the development of a subscription bus service.

- **Demand Responsive (Non-Fixed Route) Service:** ***High*** rankings were given to Subsidized Taxi/Jitney services and Childcare Transportation. Due to the area's relatively low density demand responsive services such as the provision of subsidized taxi/jitney services may be a successful complement to traditional public transit services. Similarly, the relatively lower transit service levels in this district make childcare transportation difficult for working parents. Demand responsive, door to door childcare services can remove this transportation barrier for working parents. ***Medium-High*** rankings were given to Point and Route Deviation Strategies. The lower density of this area, and relatively limited use of existing transit services could potentially benefit from point and route deviation strategies. The deviated strategies allow existing transit services to leave the current routing of a system to provide service to locations presently unserved but in the vicinity of existing transit.

- **Service Delivery:** ***High*** rankings were given to Transportation Cooperatives, which are likely to be more effective in low-density areas where community transportation resources can address gaps in transit service. ***Medium*** rankings were given to Transportation Brokers and Marketing & Advertising. Brokers may have some success in coordinating and developing services, but the scale and complexity of transportation services are insufficient to warrant a high ranking. A ***Low*** ranking was given to Transportation Management Associations as employment concentrations appear insufficient to support this type of organization.

- **Transportation Demand Management Strategies:** A ***Medium*** ranking was given to Car Pools and Guaranteed Ride Home services. Guaranteed ride home service can provide a safety net in case of emergency for workers making long or complicated commutes. Car pools could provide alternative service to employment centers that are difficult to reach at all hours by transit. Bicycle Programs and Van Service received a ***Low*** ranking. The low density of the Route 22 area makes it less likely that these programs would be effective.

9. Route 6 Corridor

Location: Peekskill to Brewster and Brewster to Danbury in Westchester, Putnam and Fairfield Counties

Priority Market Criteria

- Employment Size: *Low* [4]
- Employment Growth: *High*[5]
- Modeled Trip Potential: *High*
- Community/Agency Input: *High*

Sub-Markets

Route 6 connects three counties on its route from Peekskill to Danbury, but two sub-markets make sense from a transportation perspective:

1) ***Peekskill to Brewster*** encompasses an area with new development and service from both Westchester's Bee-Line system and Putnam's PART system.
2) ***Brewster to Danbury*** defines an area with large established employers as well as new development, and service from both Putnam and Fairfield Counties.

Residential Target Areas

For the northern Westchester section of Route 6, Peekskill has the strongest potential for providing additional entry-level workers. For the Brewster to Danbury section, Brewster is the primary location of potential workers. The highly ranked service enhancements apply to both of these target areas.

[4] Zip codes for this corridor cover too wide an area to estimate employment for area along Route 6. However, total employment for these zip codes is low compared with other markets.
[5] See footnote 5. Zip code level data indicates that this is a rapidly growing area.

Opportunity Rankings for the Route 6 Corridor

High	***Low***
Extended service hours	Express routes
Timed transfers/schedule coordination	New local routes
Increased frequency of service	Subscription buses
Subsidized taxi/jitney service	Route deviation
Childcare transportation	Transportation management association services
Transportation cooperative services	Van pools
	Bicycle programs
Medium	
Feeder routes	
Extension of existing service	
Modification of routes and stops	
Shuttle services	
Point deviation	
Transportation brokerage services	
Marketing and advertising	
Guaranteed ride home program	
Car pools	

Description of Opportunity Rankings

- **Public Transit Services:** A ***High*** ranking was given to Extension of Service Hours, Timed Transfer/Schedule Coordination and Increased Frequency of Service. Present service levels along the Route 6 Corridor are limited, and most routes have no evening and only limited weekend service. Enhanced connections between Westchester and Putnam service could also improve access to employment in both counties. A ***Medium*** ranking was given for the development of Feeder Routes, Extension of Existing Services, and Modification of Routes and Stops. Feeder Routes could supplement existing transit services by providing connections within the Route 6 Corridor. By using existing rail stations as transit nodes for Feeder Routes, patronage of the routes can be shared by New York City commuters as well as employees of the Route 6 Corridor. In addition, Extension of Existing Services can further complement existing services in the Route 6 Corridor. A ***Low*** ranking was given to New Local Routes and New Express Routes. Given the low service levels (frequency and span of service) of existing public transit services, the addition of more transit

routes with limited service would be less advantageous than investing those resources into improving the existing transit services.

- **Private Transit Services:** A ***Medium*** ranking was given to Shuttle Service as many large employers do not have direct transit service, but are in the vicinity of transit routes and nodes. By providing employees with Shuttle Services, direct transit service can be provided based on employers' hours of operation. Subscription Buses received a ***Low*** ranking because there was unlikely to be enough demand from individual employers.

- **Demand Responsive (Non-Fixed Route) Service:** A ***High*** ranking was given to the provision of Childcare Transportation and Subsidized Taxi/Jitney Service. The provision of Childcare Transportation may allow parents to accept jobs within the Route 6 Corridor. This is especially important due to the low frequency of public transit services in the area. Subsidized Taxi and Jitney Service is also most appropriate in low-density areas where sufficient demand for more fixed-rout service may not exist. A ***Medium*** ranking was given to Point Deviation as several logical nodes exist along the Route 6 Corridor. A ***Low*** ranking was given to the other demand responsive service, Route Deviation. Route deviated services may adversely affect the on-time performance and likelihood of good schedule connections.

- **Service Delivery:** ***High*** rankings were given to Transportation Cooperatives, which are likely to be more effective in low-density areas where community transportation resources can address gaps in transit service. ***Medium*** rankings were given to Transportation Brokers and Marketing & Advertising. Brokers may have some success in coordinating and developing services, but the scale and complexity of transportation services are insufficient to warrant a high ranking. A ***Low*** ranking was given to Transportation Management Associations as employment concentrations appear insufficient to support this type of organization.

- **Transportation Demand Management Strategies:** A ***Medium*** ranking was given to Car Pools, and Guaranteed Ride Home Services. Guaranteed ride home service can provide a safety net in case of emergency for workers making long or complicated commutes. Car pools could provide alternative service to employment centers that are difficult to reach at all hours by transit. Bicycle Programs and Van Service received a ***Low*** ranking. The low density of the Route 6 area makes it less likely that these programs would be effective.

10. Central Nassau Centers

Location: Includes Mineola, Garden City, Hempstead, Westbury, Hicksville and Plainview in Central Nassau County

Priority Market Criteria

- Employment Size: *High* - 138,000 jobs, moderate share for entry-level
- Employment Growth: *Medium* - 12% growth from 1993-1999
- Modeled Trip Potential: *Medium*
- Community/Agency Input: *High*

Sub-Markets

Two distinct sub-markets, characterized by different employment densities and configurations, are indicated for this market:

1) The area known as the ***"Nassau Hub"***, including parts of Mineola, Garden City, Hempstead and Westbury, is one of the densest and most diverse employment centers on Long Island, with entry-level job opportunities in retail, health services and office industries.

2) ***East*** of this area are the municipalities of Hicksville and Plainview, parts of which are experiencing rapid employment growth, and which also have a number of entry-level opportunities in retail and health services.

Residential Target Areas

Residential locations with the potential to increase trips from low-income workers to the Nassau Hub area are dispersed throughout central and western Nassau and eastern Queens, with most potential from places in and near the target area, such as Hempstead and Mineola. Potential also exists from Brooklyn and other parts of Queens. For Hicksville and Plainview, potential residential locations are dispersed throughout central and eastern Nassau and western Suffolk. Both of the sub-markets are also potential destinations for reverse commuters from New York City at all income levels. Of the highly ranked public transit service enhancements, extended service hours and increased frequency of service would have the greatest impact on communities in and near Central Nassau, while express routes and schedule coordination would have the greatest impact on commuters from other counties. Other services, more likely to be provided by private and non-profit entities, that would have the greatest impact on Nassau residents include childcare transportation and transportation brokerage services. For New York City and Suffolk communities with longer commutes, express routes, schedule coordination with commuter rail and other bus systems, brokerage services, marketing and advertising, and van and car pools are likely to have the greatest impact.

Opportunity Rankings for Central Nassau Centers

High
Extended service hours
Transportation brokerage services
Marketing and advertising

Medium-High
Express routes
Increased frequency of service
Timed transfers/schedule coordination
Childcare transportation

Medium
New local routes
Extension of existing service
Shuttle services

Transportation management association services
Bicycle programs
Van pools
Car pools
Guaranteed ride home program

Low
Feeder routes
Modification of routes and stops
Subscription buses
Route deviation
Subsidized taxi/jitney service
Point deviation
Transportation cooperative services

Description of Opportunity Rankings

- **Public Transit Services:** A ***High*** ranking was given for Extended Service Hours. This market covers a large service area with a wide range of service from both the Long Island Railroad and MTA Long Island Bus. While there is generally a significant transit service level within Central Nassau, additional hours of evening and weekend service could significantly improve access to the many entry level jobs in Central Nassau that have non-traditional schedules, particularly in the retail, hospitality and health sectors. ***Medium-High*** rankings were given to Express Routes, Timed Transfers/Schedule Coordination and Increased Frequency of Service. Expanded express services, which can range from limited stop service to traditional express bus service to rapid commute service on priority lanes, could have a particularly strong impact on the reverse commute market from New York City. A combination of increased frequencies on some routes and modifications of transfers and schedules can have a significant impact in a market of this size and complexity. ***Medium*** rankings were given to New

Local Routes and Extension of Existing Services. Currently, 27 Long Island Bus routes operate in the area. The need for new or extended local routes is less likely than for the previously described actions, but may exist in rapidly developing areas. ***Low*** rankings were given to Feeder Routes and Modification of Routes and Stops. Because of the high coverage of existing transit service, additions to these types of services would be less likely to enhance access to Central Nassau than other enhancements described above.

- **Private Transit Services:** A ***Medium*** rating was given to Shuttle Services. Even with the relatively high levels of transit service in the Central Nassau area, there is some potential for private shuttle services that enhance connections to existing fixed route service for some large employers and office complexes that are not directly served by transit. A ***Low*** ranking was given to Subscription Buses, which generally require strong demand from a single large employer to be successful.

- **Demand Responsive (Non-Fixed Route) Service:** A ***Medium-High*** ranking was given to the provision of Childcare Transportation. Despite the significant level of transit service in the area, parents who need to make multiple transit stops to childcare and work locations can have prohibitively long commutes. Childcare transportation that also connects to transit routes can significantly reduce this burden. ***Low*** rankings were applied to Point and Route Deviation enhancements. Many of the major employment corridors in Central Nassau are currently served either directly or within walking distance by public transit services. Also, due to the high usage of transit in this corridor, deviated services could adversely affect on-time performance and dependability of existing services. Due to the high level of transit service in this area coupled with the high cost per passenger for provision of this enhancement, subsidized Taxi/Jitney Service was also rated ***Low***.

- **Service Delivery:** ***High*** rankings were assigned to Transportation Brokers and Marketing and Advertising. The Central Nassau employment market is large and complex enough to justify programs that target both of these services to the area. County or region-wide approaches still may be most appropriate, but transportation brokers can have a significant impact by coordinating services for welfare-to-work clients and helping to develop alternative services. Central Nassau employers also represent a key constituency for marketing and advertising transit, TDM and alternative services. A ***Medium*** ranking was assigned to Transportation Management Associations. Some locations with a critical mass of employers facing similar transportation issues could improve job access through TMAs. A ***Low*** ranking was given to Transportation Cooperatives because of the fairly high levels of transit service in the area.

- **Transportation Demand Management Strategies:** All TDM services were assigned a ***Medium*** ranking for this market. Although infrastructure and terrain can limit the utility of Bicycle Programs, there is some potential for innovative

programs to provide the training and services needed to advance this low-cost commuting option. Employment concentrations are sufficient to support both Car and Van Pools, and these may be applicable to some employer locations that are less well-served by public transit Guaranteed ride home service can provide a safety net in case of emergency for workers making long or complicated commutes.

11. Northern Nassau

Location: Woodbury, Syosset and Port Washington in Northern Nassau County

Priority Market Criteria

- Employment Size: *High* - 44,7000 jobs, moderate share for entry-level
- Employment Growth: *Medium* - 11% growth from 1993-1999
- Modeled Trip Potential: *High*
- Community/Agency Input: *Medium*

Sub-Markets

Because the municipalities in this market are not contiguous, there are two separate areas for consideration:

1) ***Port Washington*** has a high proportion of jobs in retail and distribution services.
2) ***Woodbury and Syosset*** have a substantial number of job opportunities in retail and health services.

Residential Target Areas

Most of the communities with the strongest potential for improved access to this market are dispersed throughout central and northern Nassau, with some potential from communities in Queens and Suffolk counties. Most of the highly ranked service items would have the greatest impact on residential communities in Nassau County, but expanded express service and car pools would likely have the largest impact on inter-county commutes.

Opportunity Rankings for Northern Nassau

High	***Low***
Extended service hours	Feeder routes
Route deviation	Extension of existing service
Car pools	Modification of routes and stops
	Timed transfers/schedule coordination
Medium-High	Subscription buses
Express routes	Transportation management association services
Childcare transportation	
Medium	
New local routes	
Increased frequency of service	
Shuttle services	
Point deviation	
Subsidized taxi/jitney service	
Transportation brokerage services	
Transportation cooperative services	
Marketing and advertising	
Bicycle programs	
Van pools	
Guaranteed ride home program	

Description of Opportunity Rankings

- **Public Transit Services:** A ***High*** ranking was given to Extended Service Hours. The area has a high proportion of retail and health jobs, which tend to have non-traditional work schedules, and additional evening and weekend service would improve access of these jobs. A ***Medium-High*** ranking was given to Express Routes. Expanded express services, which can range from limited stop service to traditional express bus service to rapid commute service on priority lanes, could have a particularly strong impact on the reverse commute market from New York City and on longer commutes within Long Island. A ***Medium*** ranking was given to the provision of New Local Transit Routes and Increased Frequency of Service. While there are indications that areas not currently connected by transit could provide additional workers, the density, topography and number of jobs in Northern Nassau may not be great enough to support additional transit routes. Increased frequency would also improve job access, although this may

not be as high a priority as additional hours of service. The remaining enhancements that received ***Low*** rankings include Feeder Services, Extension of Existing Services, Modification of Routes and Stops and Timed Transfers/Schedule Coordination. The relatively lower density in this area does not warrant the initiation of new feeder services into this area. Also due to the difficult street geometry in parts of Northern Nassau County, extension of existing services and route modification in the area may not be feasible.

- **Private Transit Services:** A ***Medium*** ranking was given to the development of Shuttle Service. Shuttle services could provide connections between existing transit services and businesses that are currently unserved by transit, particularly services that emphasize public-private partnerships to enhance existing fixed-route service. A ***Low*** ranking was designated for Subscription Buses. There are few large employers in the Northern Nassau service zone that could support the numbers of employees necessary for the success of Subscription Buses.

- **Demand Responsive (Non-Fixed Route) Service:** A ***High*** ranking was given to Route Deviation enhancements. Because of the relatively lower density and usage of local transit services in Northern Nassau County, some forms of demand responsive services could improve access for employees with work locations in this area. By allowing route deviation on routes or at times when service is not heavily used, allowing employees better access to their places of employment may be worth the trade-off with on-time performance. A ***Medium-High*** ranking was given to Childcare Transportation. Childcare transportation can be an important supplemental service for connecting working parents to local work locations and transit nodes as well as childcare facilities. ***Medium*** rankings were given to Point Deviation and Subsidized Taxi/Jitney Service. Point deviation may be less applicable than route deviation for serving employment locations that are not directly on fixed route service. Subsidized taxi/Jitney services, while normally very expensive to provide, may be suitable as a limited supplement to transit services for welfare-to-work clients.

- **Service Delivery:** ***Medium*** rankings were assigned to Transportation Brokers, Transportation Cooperatives and Marketing and Advertising. All of these services have some applicability for either enhancing existing services or addressing gaps in the transportation network. However, most of these services are probably more appropriately delivered on a county or regional basis to have sufficient economies of scale. Transportation Management Associations were given a ***Low*** ranking because of the relatively low density of employers.

- **Transportation Demand Management Strategies:** A ***High*** ranking was assigned to Car Pools. The area is conducive to Car Pools, which can provide alternative service to smaller employment centers when other modes of transportation cannot meet all worker needs. A ***Medium*** ranking was given to Bicycle Programs, Van Pools, and Guaranteed Ride Home Programs. Although

infrastructure and terrain can limit the utility of Bicycle Programs, there is some potential for innovative programs to provide the training and services needed to advance this low-cost commuting option. Van pools require larger employment concentrations than car pools to be effective, but may still have some applications. Guaranteed ride home service can provide a safety net in case of emergency for workers making long or complicated commutes.

12. Route 110 Corridor

Location: Farmingdale, Melville and Huntington in western Suffolk County

Priority Market Criteria

- Employment Size: *High* - 88,000 jobs, moderate share for entry-level
- Employment Growth: *High* - 18% growth from 1993-1999
- Modeled Trip Potential: *High*
- Community/Agency Input: *High*

Sub-Markets

None

Residential Target Areas

The communities that are likely to have the largest increase in entry-level job placements as a result of improved access are clustered in eastern Nassau and western Suffolk counties. However, this is also an important reverse commute market for residents of Queens and Brooklyn, as well as for western Nassau and eastern Suffolk. Of the highly ranked public transit service enhancements, extended service hours, modifications of routes and increased frequency of service would have the greatest impact on communities in and near the 110 corridor, while express routes and schedule coordination, particularly with commuter rail service, would have the greatest impact on commuters from New York City or eastern Suffolk. Other services, more likely to be provided by private and non-profit entities, that would have the greatest impact on residents in nearby communities include childcare transportation and transportation brokerage services. For New York City and eastern Suffolk communities with longer commutes, other services likely to have a strong impact include brokerage services, marketing and advertising, and van and car pools.

Opportunity Rankings for Route 110 Corridor

High
Extended service hours
Modification of routes and stops
Timed transfers/schedule coordination
Increased frequency of service
Transportation brokerage services
Marketing and advertising
Van pools
Car pools

Medium-High

Childcare transportation

Medium
Express routes
Feeder routes
Shuttle services
Subscription buses
Point deviation
Transportation management association services
Bicycle programs
Guaranteed ride home program

Low-Medium
Extension of existing service

Low

New local routes
Subsidized taxi/jitney service
Route deviation
Transportation cooperative services

Description of Opportunity Rankings

- **Public Transit Services:** ***High*** rankings were given for Extended Service Hours, Modifications of Routes and Stops, Timed Transfer/Schedule Coordination and Increased Frequency of Service. Currently, a significant number of routes serve the Route 110 Corridor. While service is relatively frequent during peak periods, it tapers off significantly during off-peak periods and provides virtually no night-time service. Given that many entry-level jobs have non-traditional working hours, increased frequency of service and expansion of hours to include limited night-time service could significantly improve access to these employment opportunities. Schedule coordination, particularly between commuter rail and bus or shuttle service, such as the LI Bus/LIRR Farmingdale shuttle, is a strategy that works well in this market. A ***Medium*** ranking was given to Express Routes

and Feeder Routes. Expanded express services, which can range from limited stop service to traditional express bus service to rapid commute service on priority lanes, could have a particularly strong impact on the reverse commute market from New York City and on longer commutes within Long Island. While spatial coverage within the Route 110 Corridor is significant, the provision of Feeder Services to the area could provide additional local access. A ***Low-Medium*** ranking was given to the Extension of Existing Services. The current services cover the length of the district. Extension of the routes would provide marginal benefits to the Route 110 corridor. ***Low*** rankings were given to New Local Routes. Existing routes cover the main parts of the Corridor and connect to the primary residential areas.

- **Private Transit Services:** ***Medium*** ratings were given to both of the private transit enhancements: Subscription Buses and Shuttle Services. A number of employment locations are off of major transit routes, and some larger businesses could provide Subscription Bus services from key nodes to major employment centers. Similarly, local businesses could pool resources to provide Shuttle Services from existing transit sites to their places of employment.

- **Demand Responsive (Non-Fixed Route) Service:** A ***Medium-High*** ranking was assigned to Childcare Transportation. Transportation that connects working parents to childcare locations and transit routes serving the 110 Corridor could expand the number of workers that can commute to the corridor. A ***Medium*** ranking was given to Point Deviation enhancements. Point deviation from existing transit nodes could provide improved access to locations currently without direct transit access. ***Low*** rankings were given to Route Deviation and Subsidized Taxi/Jitney Services. The high coverage and level of existing service combine to make Route Deviation a poor enhancement to transit service in the Route 110 Corridor as compared to other potential enhancements. Route Deviations in this area would impact on-time performance and reduce the dependability of transit services in the corridor. Subsidized Taxi/Jitney Services while potentially more convenient for employees would provide duplicative services at a high cost per passenger.

- **Service Delivery:** ***High*** rankings were given to Transportation Brokers and Marketing and Advertising. The density of employment along the corridor make this an attractive target for transportation brokers to connect with human service providers, and also makes it an attractive market for marketing transportation demand management services that can improve job access. A ***Medium*** ranking was assigned to Transportation Management Associations. Existing TMAs in the area already provide these services but could be enhanced. A ***Low*** ranking was given to Transportation Cooperatives, considering the dispersion of residential target areas.

- **Transportation Demand Management Strategies:** ***High*** rankings were given to Van Pools and Car Pools. Even with a relatively high coverage of transit service, limited hours of service, the high density of employers and the attractiveness of this employment market to low-income job seekers who may have to commute from long distances give Van and Car Pools a strong potential. A ***Medium*** ranking was given to Bicycle Programs and Guaranteed Ride Home Programs. Although infrastructure and terrain can limit the utility of bicycle programs, there is some potential for innovative programs to provide the training and services needed to advance this low-cost commuting option. Guaranteed ride home service can provide a safety net in case of emergency for workers making long or complicated commutes.

13. Central Suffolk Centers

Location: Hauppauge, Bohemia, Central Islip, Brentwood and Deer Park in Central Suffolk

Priority Market Criteria

- Employment Size: *High* - 104,000 jobs, high wage potential
- Employment Growth: *High* - 30% growth from 1993-1999
- Modeled Trip Potential: *High*
- Community/Agency Input: *High*

Sub-Markets

Three contiguous but distinct sub-markets are located in Central Suffolk, differentiated by both employment and transportation characteristics:

1) ***Hauppauge*** has a concentration of government office jobs and is a central node for many bus routes.
2) The ***Route 454 Corridor*** has many similarities to the Route 110 corridor, with a concentration of employers, including many manufacturing companies, located along the route.
3) The ***Deer Park to Central Islip Corridor***, including Brentwood and located along the Ronkonkoma branch of the Long Island Railroad, has a large number of manufacturing, distribution and retail job opportunities.

Residential Target Areas

Communities with the strongest potential to place additional entry-level workers in this market appear to be clustered to the south and east of this employment market. There is also potential for increased job placements from communities in Nassau and western Suffolk. Of the highly ranked public transit items, increased frequency of service and extended service hours are most important for residential communities that are in or near the employment market, while express service and schedule coordination are most important for longer commutes. Of the other services, which are more likely to be provided by private or nonprofit entities, childcare transportation would probably have its greatest impact on nearby communities, while marketing and advertising, car pools and brokerage services would have the most impact on longer commutes.

Opportunity Rankings for Central Suffolk Centers

High	***Low***
Increased frequency of service	Feeder routes
Marketing and advertising	Subscription buses
Car pools	
Medium-High	
Childcare transportation	
Timed transfers/schedule coordination	
Extended service hours	
Transportation brokerage services	
Medium	
Express routes	
New local routes	
Extension of existing service	
Modification of routes and stops	
Shuttle services	
Point deviation	
Route deviation	
Subsidized taxi/jitney service	
Transportation management association services	
Transportation cooperative services	
Bicycle programs	
Van pools	
Guaranteed ride home program	

Description of Opportunity Rankings

- **Public Transit Services:** A ***High*** ranking was given to Increased Frequency of Service due to current low service frequencies on transit routes serving the area – 30 minutes during peak periods and 60 during off-peak. A ***Medium-High*** ranking was given to Extended Service Hours and Timed Transfer/Schedule Coordination. Even though many of the area's industrial jobs have traditional service hours, expanded hours of service would improve access to many entry-level jobs that are not oriented to peak hours. Schedule coordination can be particularly important for connections between bus and commuter rail service and among bus routes with limited frequencies. A ***Medium*** ranking was given for the concepts of Express Routes, New Local Routes, Extension of Existing Service

and Modification of Routes and Stops. Since this is a rapidly growing area, these service enhancements could have a significant impact on job access. Expanded express services, which can range from limited stop service to traditional express bus service to rapid commute service on priority lanes, could have a particularly strong impact on longer commutes from Nassau or eastern Suffolk. A ***Low*** ranking was given to Feeder Services, which are unlikely to have the impact of other service enhancements.

- **Private Transit Services:** A ***Medium*** ranking was given to the development of Shuttle Services in Central Suffolk County. Employers could improve access through the creation of a shuttle service that would provide service between major transit modes and contributing businesses. A ***Low*** ranking was designated for Subscription Buses. There are few major employers in Central Suffolk County that could support the development of a Subscription Bus.

- **Demand Responsive (Non-Fixed Route) Service:** A ***Medium-High*** ranking was given to Childcare Transportation, which can be an important supplemental service by connecting working parents to both childcare facilities and transit service to employment centers. Point Deviation, Route Deviation, and Subsidized Taxi/Jitney Service all received ***Medium*** rankings. While all of these options would provide a positive impact to the Central Suffolk area, the ability of Point and Route Deviation to improve access in the area is constrained by the street geometry and lower densities within the area. Similarly, subsidized taxi/jitney service could supplement transit and other transportation services in this area for areas and times that are not well served by other means.

- **Service Delivery:** A ***High*** ranking was given to Marketing and Advertising and a ***Medium-High*** ranking was given to Transportation Brokers. As a growing employment area with a significant number of firms, this is an attractive market for brokers to connect to human service providers and for TDM organizations to market services. Transportation Management Associations and Transportation Cooperatives were given a ***Medium*** ranking. TMAs could support the development of alternative services, and transportation cooperatives may be viable in residential communities in and near the target area.

- **Transportation Demand Management Strategies:** Car Pools received a ***High*** ranking. Employment densities are conducive to car pools, which can provide alternative service to employment centers when other modes of transportation cannot meet all worker needs. A ***Medium*** ranking was given to Van Pools, which require larger employment concentrations to be effective, as well as to Bicycle Programs and Guaranteed Ride Home Service. Although infrastructure and terrain can limit the utility of bicycle programs, there is some potential for innovative programs to provide the training and services needed to advance this low-cost commuting option. Guaranteed ride home service can provide a safety net in case of emergency for workers making long or complicated commutes.

14. East End

Location: Riverhead, East Hampton and Southampton on the East End of Suffolk County

Priority Market Criteria

- Employment Size: *Medium* - 22,000 jobs, high share for entry-level
- Employment Growth: *High* - 30% growth from 1993-1999
- Modeled Trip Potential: *High*
- Community/Agency Input: *High*

Sub-Markets

Geography defines two sub-markets for this area:

1) ***Riverhead*** is the most accessible of these three towns to both western Long Island and both the North and South forks of the East End

2) The South Fork centers of ***Southhampton and East Hampton*** are longer commutes from both western Long Island and from the North Fork.

Residential Target Areas

Communities with the greatest potential to provide additional entry-level workers to this employment market are located both within the East End communities and from communities to the west, primarily in Central Suffolk. Of the highly ranked public transit items, increased frequency of service and extended service hours are most important for residential communities that are in or near the employment market, while express service and schedule coordination are most important for longer commutes. Of the other services, which are more likely to be provided by private or nonprofit entities, childcare transportation, subsidized taxi/jitney service and transportation cooperative services would probably have its greatest impact on nearby communities, while marketing and advertising and car pools would have the most impact on longer commutes.

Opportunity Rankings for the East End

High	***Low***
Extended service hours	New local routes
Increased frequency of service	Feeder routes
Childcare transportation	
Subsidized taxi/jitney service	Transportation management association services
Transportation cooperative services	Subscription buses
Marketing and advertising	Bicycle programs
Car pools	
Medium-High	
Timed transfers/schedule coordination	
Modification of routes and stops	
Transportation brokerage services	
Medium	
Express routes	
Extension of existing service	
Shuttle services	
Point deviation	
Route deviation	
Van pools	
Guaranteed ride home program	

Description of Opportunity Rankings

- **Public Transit Services:** ***High*** rankings were given for Extended Service Hours and Increased Frequency of Service. Currently East End transit service is provided by only three bus routes, in addition to Long Island Railroad service. Each of these routes provides infrequent service with frequencies of between one-hour and two hours and spans of service being limited to between 6:50 a.m. and 6:35 p.m. on two routes and peak periods only on the third. Expanded Service Hours can improve access to employment opportunities, particularly to opportunities in retail services or health services that predominate on the East

End and which often have non-traditional hours. Increased Frequency of Service can improve usage of transit as it can significantly reduce trip time if a connection needs to be made or reduce wait time for the bus going to or coming from places of employment. A ***Medium-High*** ranking was given to Timed Transfer/Schedule Coordination and Modification of Routes and Stops. Schedule coordination can be particularly important for connections between bus and commuter rail service and among bus routes with limited frequencies. Route modification may also be important to serve rapidly developing or changing areas of the East End. A ***Medium*** ranking was given to Express Routes and Extension of Existing Service. Expanded express services, which can range from limited stop service to traditional express bus service to rapid commute service on priority lanes, could have a particularly strong impact on longer commutes from western Suffolk. Primary activity centers appear to be served by existing routes but rapid growth could indicate new areas of need for extension of existing routes. ***Low*** rankings were given to New Local and Feeder Routes. Low density and limited employment opportunities do not appear to support significant investments for new routes in the East End.

- **Private Transit Services:** A ***Medium*** ranking was given to the development of Shuttle Service. Local businesses could pool their resources to provide Shuttle Services from transit hubs. A ***Low*** ranking was designated for Subscription Buses. There are limited opportunities for the development of a successful Subscription Bus in the East End. Presently, no employers have been identified which employ a large enough number of workers to achieve a significant pool of employees who would be potential service users.

- **Demand Responsive (Non-Fixed Route) Service:** ***High*** rankings were given to Subsidized Taxi/Jitney services and Childcare Transportation. Lower density and non-linear roadways make the East End challenging to serve with traditional public transit services. Subsidized Taxi/Jitney Services connecting workers with both employment and related services is one way to supplement the transit network. Similarly, childcare transportation receives a higher priority in areas where densities do not support frequent or extensive transit service. ***Medium*** rankings were given to Point and Route Deviation Strategies. Point and Route Deviation enhancements would provide access to employers currently unserved by transit. Trip times on these services, however, may become significant due to the low density of the East End.

- **Service Delivery:** Both Transportation Cooperatives and Marketing and Advertising received ***High*** rankings. Community transportation can be an important supplement to transit service in low-density areas, and the East End has active community organizations with a strong interest in transportation. Marketing and Advertising were ranked highly, even though densities are low, because the particular features of the East End may be conducive to special marketing of transportation services. Transportation brokers received a

Medium-High ranking. Brokering services between human service agencies and employers could have an impact, particularly where local intermediaries have already established a willingness to take on the brokering function.. Transportation Management Associations received a ***Low*** ranking because of low employment densities.

- **Transportation Demand Management Strategies:** Car Pools received a ***High*** ranking. Employment densities are conducive to car pools, which can provide alternative service to employment centers when other modes of transportation cannot meet all worker needs. A ***Medium*** ranking was given to Van Pools as well as to Guaranteed Ride Home Service. Van pools generally require higher employment densities to be effective, but local efforts have identified a demand for these services. Although infrastructure and terrain can limit the utility of bicycle programs, there is some potential for innovative programs to provide the training and services needed to advance this low-cost commuting option. Guaranteed ride home service can provide a safety net in case of emergency for workers making long or complicated commutes. Bicycle Programs received a ***Low*** ranking in this area where low densities and long travelling distances are less likely to support this option.

15. Meadowlands, NJ

Location: Hackensack, East Rutherford, Carlstadt, Teterboro and Seacaucus in Bergen and Hudson Counties

Priority Market Criteria

- Employment Size: *High* - 116,000 jobs, many entry-level with career potential
- Employment Growth: *Medium* - 13% growth from 1992-1998
- Modeled Trip Potential: *NA*
- Community/Agency Input: *High*

Sub-Markets

While no well-defined sub-markets are indicated, the Meadowlands covers a broad area with large employment concentrations in Seacaucus, East Rutherford and Hackensack.

Residential Target Areas

The residential area with the strongest potential to increase employment opportunities for low-income workers to the Meadowlands is Upper Manhattan, which already has substantial commutation to the area. Other areas with potential include the Bronx, lower Manhattan, Rockland and southern Westchester. The area is also a target for reverse commute services for workers at all income levels. Since all of these target communities involve long commutes and similar constituents, service rankings apply similarly to all of these communities.

Opportunity Rankings for the Meadowlands, NJ

High
Subscription buses
Transportation brokerage services
Car pools
Van pools

Medium-High
Feeder routes

Medium
Express routes
Extended service hours
Increased frequency of service
Shuttle services
Childcare transportation
Transportation management association services
Transportation cooperative services
Marketing and advertising
Guaranteed ride home program

Medium-Low
Timed transfers/schedule coordination

Low
New local routes
Extension of existing service
Modification of routes and stops
Subsidized taxi/jitney service
Point deviation
Route deviation
Bicycle programs

Description of Opportunity Rankings

- **Public Transit Services:** A ***Medium-High*** ranking was given to Feeder Services. The Meadowlands is an area with significant employment opportunities for persons entering the workforce. The development of Feeder Services to train and bus routes from Manhattan can increase the accessible market area for employees to these jobs. A ***Medium*** ranking is given to Express Routes, Extended Service Hours and Increased Frequency of Service. Express Routes from key targeted locations to employment centers could attract employees to these locations. While many routes currently provide service during the daytime, service is limited during evening hours. Many of the entry-level jobs in this area are service sector jobs that have non-traditional work schedules. Providing additional night-time service would improve access to these locations. While the Meadowlands is currently served by a number of transit routes, increased frequencies can significantly cut total trip time particularly for those employees needed to transfer between transit services. A ***Medium-Low*** ranking was given to Timed Transfers/Schedule Coordination. A ***Low*** ranking was given for the implementation of new Local Routes, Extension of Existing Services and Modification of Routes and Stops. The Meadowlands is currently served by a wide network of transit routes. The addition of new local transit services may only provide marginal returns as they would likely duplicate existing services. The bus

stops in this area are also well located. Modification of Routes and Stops would provide only marginal returns to the system. However, many of the current services are focused on providing service to Manhattan, examination of potential en-route stops should be considered.

- **Private Transit Services:** A ***High*** ranking was given to the creation of Subscription Buses. Recently, several successful Subscription Bus services have been implemented in the Meadowlands area. The success of these services indicates high potential for similar services, most likely provided through Meadowlink, the area's Transportation Management Association (TMA). A ***Medium*** ranking was given the development of Shuttle Buses. While Subscription Bus service has been successful in the Meadowlands area, Shuttle Buses allow smaller businesses an opportunity to pool their resources to provide employees with direct transportation services between existing transit nodes and their places of employment.

- **Demand Responsive (Non-Fixed Route) Service:** A ***Medium*** ranking was given to the provision of Childcare Transportation. Childcare transportation in residential areas serving the Meadowlands that also connects to transit nodes could make the commute feasible for additional job seekers. A ***Low*** ranking was given to the other demand responsive services including Point Deviation, Route Deviation, and Subsidized Taxi/Jitney Services. Given the high concentration of transit services and the development patterns of the area, traditional transit services are most appropriate for this area.

- **Service Delivery:** A ***High*** ranking was given to Transportation Brokers. The large number and diversity of employment opportunities, the complexity of transportation needs and choices, and the need to coordinate entities in different states make this a particularly promising strategy for the Meadowlands. The other service delivery categories—Transportation Management Associations, Transportation Cooperatives and Marketing and Advertising—were given ***Medium*** rankings. The area already has an active TMA, Meadowlink, which provides a base for enhanced TMA services and Marketing and Advertising to employers. The prevalence of informal services, such as vans and jitneys, in several target residential communities could potentially be organized through a Transportation Cooperative, but several regulatory, cost and organizational issues would need to be addressed.

- **Transportation Demand Management Strategies:** The combination of relatively long commuting distances from target residential areas, the prevalence of job opportunities with evening and weekend hours, and the lack of transit to some hotels and other employers in the Meadowlands results in a ***High*** ranking for Van Pools and Car Pools. Guaranteed Ride Home Programs received a ***Medium*** ranking. Guaranteed ride home service can provide a safety net in case of emergency for workers making long or complicated commutes. Bicycle Programs received a ***Low*** ranking because of the complications in commuting long distances along major highways and bridge crossings.

16. Paramus, NJ

Location: Central Bergen County

Priority Market Criteria

- Employment Size: *High* - 45,000 jobs
- Employment Growth: *High* - 32% growth from 1992-1998
- Modeled Trip Potential: *NA*
- Community/Agency Input: *High*

Sub-Markets

None

Residential Target Areas

The residential area with the strongest potential to increase employment opportunities for low-income workers to the Meadowlands is Upper Manhattan, which already has substantial commutation to the area. Other areas with potential include the Bronx, lower Manhattan, Rockland and southern Westchester. The area is also a target for reverse commute services for workers at all income levels. Since all of these target communities involve long commutes and similar constituents, service rankings apply similarly to all of these communities.

Opportunity Rankings for Paramus, NJ

High	***Medium-Low***
Increased frequency of service	Subsidized taxi/jitney service
Transportation brokerage services	
Car pools	***Low***
Extended service hours	Express routes
	Feeder routes
Medium	Extension of existing service
New local routes	Subscription buses
Modification of routes and stops	Point deviation
Timed transfers/schedule coordination	Route deviation
Shuttle services	Transportation management association services
Childcare transportation	Bicycle programs
Transportation cooperative services	
Marketing and advertising	
Guaranteed ride home program	
Van pools	

Description of Opportunity Rankings

- **Public Transit Services:** A ***High*** ranking was given to Extended Service Hours and Increased Frequency of Service. NJT operates 11 local bus routes through the Paramus area. However, service can be infrequent with headways every 30 to 60 minutes on some routes. Much of the service is oriented to commuters with limited evening and weekend service. Many entry-level jobs are in retail and service industries that do not have traditional working hours and require the ability to access work sites in evenings and on the weekends. Additional service levels could improve access to these opportunities. A ***Medium*** ranking was given for the implementation of new Local Routes, Modification of Routes and Stops and Timed Transfers/Schedule Coordination. Additional Local Routes could complement the existing Paramus services particularly as many of the services are focused on providing commuter service to New York City. The existing routes could also be examined to determine if they are meeting the Paramus area's internal transit needs. Also due to the limited frequency of service, it is important that schedules are coordinated to minimize transfer times between routes. ***Low*** rankings were given to Express and Feeder Routes, and Extension of Existing Services. The routes serving the Paramus area are currently focused on the needs of commuters into New York

City. Additional Express and Feeder services to the area will have limited effects on accessing local employment opportunities.

- **Private Transit Services:** A ***Medium*** ranking was given to Shuttle Service as employers may be willing to entice employees with direct service between transit centers and employment locations. Subscription Buses received a ***Low*** ranking as major employers within the Paramus area are generally served by existing transit services.

- **Demand Responsive (Non-Fixed Route) Service:** A ***Medium*** ranking was given to the provision of Childcare Transportation. Childcare transportation in residential areas serving Paramus that also connects to transit nodes could make the commute feasible for additional job seekers. A ***Medium-Low*** ranking was given to Subsidized Taxi/Jitney Services as this service is relatively expensive and most areas within Paramus receive some transit service. A ***Low*** ranking was given to the other demand responsive services including Point and Route Deviation. Given the linear nature of the existing transit services in Paramus, Point and Route Deviated Services would negatively affect on-time performance of these services.

- **Service Delivery:** A ***High*** ranking was given to Transportation Brokers because of the large number of employment opportunities, the potential for services that supplement public transit, and the need to coordinate entities in different states to link workers to employers. Transportation Cooperatives and Marketing and Advertising were given ***Medium*** rankings. The prevalence of informal services, such as vans and jitneys, in several target residential communities could potentially be organized through a Transportation Cooperative, but several regulatory, cost and organizational issues would need to be addressed. Marketing and Advertising of Paramus employment opportunities to New York workers, and of TDM services to Paramus employers, could also have some impact. Transportation Management Associations were given a ***Low*** ranking because it is not likely that worker transportation issues are a high enough priority for Paramus employers.

- **Transportation Demand Management Strategies:** The combination of relatively long commuting distances from target residential areas and the prevalence of job opportunities with evening and weekend hours results in a ***High*** ranking for Car Pools. Because of the long commuting distances and prevalence of jobs with off-peak hours, these services could supplement transit service for workers commuting from the New York side of the Hudson. Van Pools and Guaranteed Ride Home Service received a ***Medium*** ranking. Van pools may be suitable for some large employment sites where demand would be sufficient. Guaranteed ride home service can provide a safety net in case of emergency for workers making long or complicated commutes. Bicycle Programs received a ***Low*** ranking because of the complications in commuting long distances along major highways and bridge crossings.

17. Hudson County Waterfront

Location: Jersey City, Hoboken and Weehawken waterfront

Priority Market Criteria

- Employment Size: *High* - 108,000 jobs (for the entire area of the three cities)
- Employment Growth: *High* - 26% growth from 1992-1998
- Modeled Trip Potential: *NA*
- Community/Agency Input: *High*

Sub-Markets

None

Residential Target Areas

Communities with the strongest potential to increase job placements by low-income residents in this market are located in Manhattan, Staten Island, Brooklyn and Queens. Other areas with potential include the Bronx, Westchester and Rockland. Most of the highly ranked services apply to all markets, except that new express routes would be most beneficial to Staten Island, which currently has no direct service to the Hudson waterfront.

Opportunity Rankings for the Hudson Waterfront, NJ

High	***Low***
Transportation brokerage services	New local routes
Marketing and advertising	Feeder routes
	Extension of existing service
Medium-High	Extended service hours
Express routes	Subscription buses
Increased frequency of service	Shuttle services
Van pools	Route deviation
	Point deviation
Medium	Subsidized taxi/jitney service
Timed transfers/schedule coordination	Transportation management association services
Modification of routes and stops	Transportation cooperative services
Childcare transportation	Bicycle programs
Car pools	
Guaranteed ride home program	

Description of Opportunity Rankings

- **Public Transit Services:** A ***Medium-High*** ranking was given to Express Routes and Increased Frequency of Service. Transit service is widely available along the Hudson County Waterfront. A total of 38 NJT local and commuter buses, in addition to several rail services are available to area commuters. However, much of the service is geared to commuting to New York City. Improved local bus frequency in off-peak directions and during off-peak periods could reduce commuting times for employees entering the workforce who accept jobs with non-traditional working hours. In addition, Express Bus Service from locations where there is no direct service, such as Staten Island, could also have a substantial impact where demand is sufficient. ***Medium*** rankings were given to the Modification of Routes and Stops and for Timed Transfers/Coordination. Of the 24 commuter services operated in the area only one route provides reverse commute service. Opportunities for expanding reverse commute services should be explored. ***Low*** rankings were given to New Local Routes, Feeder Services, Extension of Existing Services and Extended Service Hours. As stated above, the Hudson County Waterfront is well served by public transit. The addition of new routes would likely overlap with existing services. In addition, the majority of the local routes serving this area, operate between 5 a.m. and 2 a.m.

- **Private Transit Services:** Due to the high service levels of public transit service, privately funded Subscription Buses and Shuttle Services received ***Low*** rankings. It is unlikely that employers would operate services that would be duplicative of services currently in existence.

- **Demand Responsive (Non-Fixed Route) Service:** A ***Medium*** ranking was given to the provision of Childcare Transportation. Childcare transportation in residential areas serving the waterfront that also connects to transit nodes could make the commute feasible for additional job seekers. A ***Low*** ranking was given to the other demand responsive services including Point Deviation, Route Deviation, and Subsidized Taxi/Jitney Services. The ridership of transit services in this area does not allow for service deviation. Attempts to do so would negatively affect travel times and on-time performance. Also, due to the extensive coverage of existing service, it would not be efficient to pay the higher per trip costs of providing Subsidized Taxi/Jitney Services to potential employees.

- **Service Delivery:** ***High*** rankings were given to Transportation Brokers and Marketing and Advertising. Many entry-level workers on the New York side of the Hudson are unaware of job opportunities in the new office complexes on the waterfront, or of how to get to these opportunities. Brokers and advertising can help to bridge this gap, and brokers can also help to develop alternative transportation where current services are insufficient. Transportation Management Associations and Transportation Cooperatives were given ***Low*** rankings. Given the high level of transit service from New Jersey locations to the waterfront, new TMAs are unlikely. The target residential areas for the waterfront are too diffuse to provide potential for the formation of a Transportation Cooperative.

- **Transportation Demand Management Strategies:** A ***Medium-High*** ranking was given to Van Pools, which could be feasible between areas that are not directly served by public transit to the Hudson County Waterfront and the large office employers in this employment market. ***Medium*** rankings were given to Car Pools and Guaranteed Ride Home service. Car Pools could also serve areas without a direct transit link to the waterfront. Guaranteed ride home service can provide a safety net in case of emergency for workers making long or complicated commutes. Bicycle Programs received a ***Low*** ranking because of the complications in commuting across the Hudson River crossings.