
Regional Job Access and Reverse Commute Transportation Plan

October 2001



BALTIMORE REGIONAL TRANSPORTATION BOARD

Regional Job Access and Reverse Commute Transportation Plan

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Executive Summary

The movement of jobs from Baltimore City to outlying suburbs, in conjunction with recent federal welfare reform measures mandating increased participation in the workforce, have created new demands for job access and reverse commute transportation services in the Baltimore region. Since 1997, the Baltimore Metropolitan Council (BMC) has convened stakeholders to address transportation issues and needs as they relate to welfare reform. Participants include transit service providers, human service providers, employment development organizations, and employers across the Baltimore region.

The goal of this effort is to develop a comprehensive area-wide approach to providing transportation services to welfare recipients and low-income people regardless of jurisdictional boundaries. As a result, the Regional Job Access and Reverse Commute Transportation Plan for the Baltimore region was prepared upon the request of the Baltimore Regional Transportation Board (BRTB) to help guide funding recommendations and long-term service planning. This plan is not meant to supersede, but to build upon existing area welfare to work transportation planning activities. The plan's contents follow the outline prescribed by the Federal Transit Administration in its Job Access and Reverse Commute (JARC) grant program.

The plan provides information about geographic distributions of welfare recipients, employment centers with high potential for low-income jobs, employment-related activities, and transportation services in the Baltimore region. In the Baltimore region, there are about 20,000 households receiving Temporary Assistance for Needy Families (TANF) welfare benefits, and the majority of these are in Baltimore City. There were 19 employment centers identified as having 10,000 or more total jobs and 1,000 low wage jobs paying \$12.00 per hour or less that would be appropriate for low skilled workers to obtain. Employment centers were identified by Regional Planning District (RPD) in order to facilitate planning activities at the regional scale.

In the attempt to identify spatial mismatches and gaps in transportation, the BMC created a geographic information system (GIS) of TANF households and destinations that welfare recipients need to access. Locations of employment centers, fixed route transit services, occupational training programs, and child care centers in the region were mapped to determine how many welfare recipients had convenient access to these facilities, based on the distance between their homes, transit stops, and potential employers. Transit services on Saturdays, Sundays and overnight were compared. Access to employment-related activities, occupational training programs, and child care centers was also determined by this method. Gaps in transportation service are considered to be where convenient access is limited.

Convenient access was determined using a quarter-mile buffer around local bus routes, commuter bus stops, and train stations. This size buffer simulates a five-minute walking distance, and is referred to as a walk access buffer. The GIS analysis determined that about 92 percent of TANF cases are within walking distance of a bus route or train station, and 88 percent of the cases are located in Baltimore City. The maps show the Annapolis RPD has adequate transit service coverage within that employment center every day, but

not during overnight hours. The Columbia RPD has a good amount of coverage, except on Sunday and overnight. Other employment centers have some transit service Monday through Friday daytime hours, but little or none on weekends or overnight. Saturday transit service is not available in four of the 19 employment centers, Sunday transit service is not available in seven, and overnight transit service is not available in 13 employment centers.

Projects and strategies recommended to fill the gaps were developed based on the GIS analysis and issues expressed by stakeholders. These issues include: 1) Work schedules that require late night or weekend commuting; 2) Difficulties of balancing multiple destinations for child care and employment; 3) Long travel times because of multiple transfers; 4) Concerns about safety walking to or waiting at train stations or bus stops; and 5) Difficulties obtaining or understanding information about transportation services. Recommendations include priorities for transit service improvements, as well as transportation projects that require coordination among partners, and additional strategies relating to transportation.

Because most welfare recipients and low-income people in the Baltimore region live in dense urban areas served by transit, filling the gaps in transportation will primarily focus on employment centers. The 19 employment centers were ranked from highest priority to lowest, based on transit need first, and potential number of low wage jobs second. According to the ranking, a project proposed to serve Westminster, Bel Air-Fallston, Ellicott City, Edgewood-Joppa, Aberdeen-Havre de Grace, and Perry Hall-White Marsh would be weighted more heavily than a project proposed to serve Owings Mills, Security, or Eastpoint-Dundalk.

Since transit access is adequate in Baltimore City, and the majority of TANF cases are in Baltimore City, service improvements should be focused on reverse commute from there to suburban areas. The priorities for types of service from highest to lowest are as follows: 1) Reverse commute service from Baltimore City to priority suburban employment centers; 2) Smaller urban areas, like Annapolis, to suburban areas where the highest concentration of TANF cases and jobs exist; 3) Suburb-to-suburb connections, in areas where the highest concentration of TANF cases and jobs exist; 4) Circulators within employment centers where the highest concentration of TANF cases and jobs exist; 5) Additional major job sites, such as Arundel Mills Mall, identified as having a concentration of low wage jobs will also be considered for transit services.

To enhance the overall quality of transit services for access to jobs in the Baltimore region, the following recommendations involve implementing new or expanded transportation service, and improving customer service and operating efficiency. All of these transit service improvements would be eligible for JARC funding, and include: 1) Maintain and expand successful JARC grant-funded transit service where need is demonstrated; 2) Incorporate successful services funded through JARC with other transit funding sources to guarantee sustainability; 3) Shorten trip time by providing more express service, more frequent service, and more convenient transfer points between service providers; 4) Increase weekend, late night, and overnight transit service where need is demonstrated; 5) Create transit centers at major fixed route and demand response service transfer points to improve connectivity, and provide schedules of all systems at all transit centers and other transfer points; and 6) Encourage employer-sponsored transportation services.

In addition, transportation coordination projects such as creating Transportation Management Associations with coordinated efforts to assist low-income commuters and improving pedestrian access to, and safety at, transit stops are also recommended projects that directly affect transportation services, but do not provide the actual transportation services. Implementation of these projects requires coordination efforts and joint investments, and may not entirely be eligible for funding through the JARC grant program. Other strategies relate to child care, health care, land use and housing, and affect job access transportation services indirectly. Although these types of strategies would not be eligible for funding through the JARC grant program, they are included in this plan since they would improve overall access to jobs.

Improving access to jobs will only be successful and sustainable if employers are active partners in the effort. Therefore, it is essential to work with employers to educate them about transportation problems, potential solutions, and what they can do to help, and help them take advantage of federal and state employer tax credits by providing information and streamlining the process. Other ways to involve employers in the process are listed in the plan, along with opportunities for funding the recommended projects. This plan is intended to help guide the development of future project proposals. As projects develop, specific goals and objectives will be identified, and cost will be determined with the assistance of the Maryland Transit Administration. Projects submitted to BRTB for funding consideration will be prioritized for funding and implementation primarily based upon the recommendations set forth in this plan.

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Introduction

New demands for job access and reverse commute transportation services have occurred primarily because of two phenomena. First, the movement of jobs from the central city to the suburbs caused a mismatch between residential and employment locations. Second, federal welfare reform measures passed by the U.S. Congress in 1996 mandated increased participation in the workforce, creating a challenge for those who cannot access suburban jobs.

Overhauling of the nation's welfare system created the Temporary Assistance for Needy Families (TANF) program, and a new requirement of work in exchange for time-limited assistance. TANF provides funding for states to administer welfare programs of their own design, within broad federal guidelines. Maryland's TANF program is called the Family Investment Program, which provides temporary assistance to needy families and children while preparing recipients for independence. Benefits are granted for sixty months, and participants must agree to a plan of activities that will help them become independent.

A primary goal of TANF is to move people from welfare to work. Failure to participate in work requirements can result in either a reduction or termination of benefits to the family. With the imperative of seeking employment or activities that will lead to employment, welfare reform has also brought new challenges to providing transportation services to individuals who do not own a car.

Maryland experienced significant reductions in its welfare rolls since overhauling the system. The State reported that 7,738 families exited welfare between October 1996 and March 2000.¹ The success of welfare reform presents a unique challenge for public transportation. Conventional transit services cannot meet all the new transportation demands that welfare to work programs are generating. Although many job opportunities will continue to be available in urban areas that are well served by transit, the growth of new jobs in suburban locations that are difficult and often impossible to reach by conventional transit service remains a genuine issue.

Additional public transportation and specialized services are needed to meet these challenges. Regional collaboration can help stakeholders determine the right mix of flexible and innovative projects necessary to respond to the needs of welfare recipients, as well as deliver the most efficient use of existing transportation resources and services. Since 1997, the Baltimore Metropolitan Council (BMC) has convened stakeholders to address transportation issues as they relate to welfare reform. Participants include transit service providers, human service providers, employment development organizations, and employers across the Baltimore region. The goal of this effort is to develop a comprehensive area-wide approach to providing transportation services to welfare recipients and low-income people regardless of jurisdictional boundaries.

Special federal programs were created to fund welfare to work initiatives. In 1998, the U.S. Department of Labor began the Welfare-to-Work grant program to assist states and local communities in creating additional job opportunities for the hardest-to-employ TANF recipients. The Transportation Equity Act for the 21st Century (TEA-21) authorized the Job

Access and Reverse Commute grant program to help states and localities fund new public transportation services, leverage TANF and Welfare-to-Work funds, and encourage coordination among stakeholders. This funding program began in 1999, and is administered by the Federal Transit Administration (FTA). The Baltimore Regional Transportation Board (BRTB), the Metropolitan Planning Organization (MPO) for the Baltimore region, reviews FTA Job Access and Reverse Commute grant proposals and makes recommendations to the Maryland Transit Administration for the state-wide application.

To help guide funding recommendations and long-term service planning, the BRTB has requested the development of this Regional Job Access and Reverse Commute Transportation Plan for the Baltimore region. This plan is not meant to supersede, but to build upon existing area welfare to work transportation planning activities. The purpose is to provide stakeholders with information about geographic distributions of welfare recipients, employment centers and employment-related activities, transportation services, and gaps in transportation in the Baltimore region. In addition, it will identify issues, needs, and priorities based on this information, as well as identify projects and strategies to address the transportation gaps.

Section A.

GEOGRAPHIC DISTRIBUTION OF WELFARE RECIPIENTS AND LOW-INCOME HOUSEHOLDS IN THE BALTIMORE REGION

This plan seeks to outline transportation services that will improve the ability of low-income people, particularly welfare recipients, to access jobs in the Baltimore region. In the State of Maryland, welfare recipients are those who receive benefits through the Family Investment Program, also known as Temporary Assistance to Needy Families (TANF) at the federal level. While TANF recipient data is the primary source of information used to locate the population needing services, low-income households are also identified. This section provides a descriptive analysis of the geographic distribution of low-income households welfare, or TANF, recipient households in the Baltimore region.

Geographic Distribution of TANF Cases

According to the Maryland Department of Human Resources in January 2000, the total number of TANF recipient households or cases reported in the Baltimore region was 20,151. Baltimore City accounted for almost 80 percent of the regional share with 16,109 cases. Baltimore County recorded the second highest number of TANF cases at 2,535 or 12.6 percent of the regional total. The remaining jurisdictions account for 7.5 percent of the region's TANF cases, while Anne Arundel County reported 904 cases, Harford County reported 297 cases, Carroll County reported 188 cases, and Howard County reported only 118 cases. The distribution of TANF cases by jurisdiction in the Baltimore region is presented in Table A-1.

**TABLE A-1
TANF Cases by Jurisdiction
in the Baltimore Region, 2000**

Jurisdiction	Total TANF Cases	% of Regional Total
Anne Arundel County	904	4.5%
Baltimore City	16,109	79.9%
Baltimore County	2,535	12.6%
Carroll County	188	0.9%
Harford County	297	1.5%
Howard County	118	0.6%
Baltimore Region	20,151	100.0%

Source: Maryland Department of Human Resources, January 2000, compiled by Baltimore Metropolitan Council.

More specific geographic information about the distribution of TANF recipient households is needed for the purposes of this plan. Therefore, the Maryland Department of Human Resources provided TANF caseload data at the address level, in the form of 100-block

portions of a street address. For example, a household located at 1234 Main Street would be reported as the 1200 block of Main Street. These 100-block addresses had no client names or information attached, for the sake of confidentiality.

This TANF caseload address data set from January 2000 was used to create Map A-1. The map shows large concentrations of TANF recipient households in East and West Baltimore, the Park Heights area of Northwest Baltimore, and in several older suburban areas, including southeast Baltimore County, the Liberty Road corridor and the northern neighborhoods of Anne Arundel County bordering Baltimore City. There are small clusters in suburban towns including Taneytown, Westminster, Aberdeen, Bel Air, Edgewood, and Columbia. However, remaining TANF cases in Anne Arundel, Carroll, and Harford Counties are widely scattered. This map will be the primary tool used to display specific geographic locations of welfare recipients, in relation to transportation services and employment centers, as analyzed in Section D of this plan.

TANF Recipients in Maryland

The U.S. Administration for Children and Families reports TANF statistics by State. This is a summary of the September 1999 Maryland statistics.²

Nearly half (47%) of TANF recipients are under 30 years old, about 6 percent are under 20 years old, 45 percent are age 20 to 29, 36 percent are age 30 to 39, 11 percent are age 40 to 49, and 3 percent are over 49 years old. Six percent of TANF recipients are teen parents. Only 7 percent of TANF adult recipients are employed, 76 percent are unemployed, and 17 percent are not in the labor force. The racial composition of adult TANF recipients are 67 percent black, 26 percent white, 2 percent Hispanic, 1 percent Asian, and less than 1 percent Native American. Most TANF families (59%) have two or more children, while 38 percent have only one child. Children recipients in the 6 to 11 year old age group account for the largest share (37%), followed by the age 2 to 5 group (25%), age 12 to 15 (17%), age 0 to 1 (14%), and age 16 to 19 (7%).

Geographic Distribution of Low-Income Households

Not everyone who is poor is a welfare recipient. Obviously, people other than welfare recipients are reliant upon public transportation services for accessing jobs. The low-income population must also be considered in order to capture the magnitude of people in need. While there are about 20,000 TANF cases in the Baltimore region, there are over 200,000 low-income households in the Baltimore region. Household income includes income earned by all persons living together in a housing unit. A low-income household is generally considered to be \$25,000 or less annually, equivalent to one person working full-time at \$12.00 per hour.

[Map A-1](#) and all maps referenced in this document are available on the BMC webpage, <http://www.baltometro.org/JARCPan.html>.

Without detailed Census 2000 statistics being available, income data is only an estimate of the actual condition. In addition, income data is not available at the address level like it is for TANF caseload data. For these reasons, TANF is the primary data set for this plan, although low-income household data is presented. According to 1999 data from National Decision Systems, there are an estimated 220,299 households in the region earning incomes of \$25,000 or less.

This household income data is not classified by age of people living in the household, so the total could include retired people, or people who do not need access to jobs. According to 1998 U.S. Census estimates, 12.2% of people in the Baltimore region are over age 65. If all 12.2% live alone in a low-income household, the maximum difference could be 26,977 low-income households who do not need access to jobs. This means that at least 193,332 households earn \$25,000 or less with at least one person of working age who might need access to a job. The numbers of low-income households in the Baltimore region are significant whether or not retirement age households are included. The distribution of low-income households by jurisdiction in the Baltimore region is presented in Table A-2.

TABLE A-2
Households with Incomes \$25,000 or Less
in the Baltimore Region, 1999

Jurisdiction	Total Households	Households \$25,000 or Less	% of Region	% of Households
Anne Arundel County	172,436	27,307	12%	16%
Baltimore City	241,139	98,028	45%	41%
Baltimore County	288,656	59,471	27%	21%
Carroll County	53,232	94,181	4%	18%
Harford County	79,522	15,750	7%	20%
Howard County	91,267	10,208	5%	11%
Baltimore Region	926,252	220,299	100%	100%

Source: National Decision Systems, 1999, compiled by Baltimore Metropolitan Council.

Section B.

GEOGRAPHIC DISTRIBUTIONS OF EMPLOYMENT CENTERS AND EMPLOYMENT-RELATED ACTIVITIES IN THE BALTIMORE REGION

For several decades, the Baltimore region has undergone major shifts in the location of population and jobs. These trends are changing the historical relationship between people and their places of work. Increasingly, jobs and major employment clusters are suburban based, while at the same time, greater numbers of the region's residents are moving beyond older suburban locations -- the housing stalwarts of earlier decades -- and taking up residence in the outer ring suburbs and exurbs. Those residents with more limited means are increasingly the ones concentrated in the core of the region and further separated from the region's growing job base. This section provides an overview of the geographic distribution of employment centers and employment-related activities in the Baltimore region.

Trends in Population and Job Growth

The Baltimore region's urban-suburban residential profile changed dramatically during the period 1990-1998. Statistics from Regional Economic Indicators³ show that all jurisdictions except Baltimore City experienced population gains between 1990 and 1998. Baltimore City steadily lost residents, resulting in a 12.2 percent drop during that eight-year period, while the population of the region's suburban ring rose by 11 percent. In 1994, Baltimore County (pop. 709,000) surpassed the population of Baltimore City (pop. 701,400), and had the highest population of all jurisdictions in the region.

However, the greatest rate of growth from 1990-1998 was Howard County's 25 percent population gain, followed by Carroll (21%), Harford (17%), Anne Arundel (11%), and Baltimore County (4%). All suburban jurisdictions except for Baltimore County outpaced the state and the nation, which experienced a 7 percent and 8 percent growth rate respectively.

At the Regional Planning District (RPD) level⁴ within the jurisdictions, similar suburban-orientated residential population growth trends occur. Using the Cooperative Regional Forecasting Round 5-B population data⁵ available at the RPD level, leading growth areas can be determined for the 1990-2000 period. In terms of absolute population growth, the ten leading growth areas were in suburban RPDs: Bel Air-Fallston, Edgewood-Joppa, Perry Hall-White Marsh, Randallstown, Crofton, Odenton, Elkridge, Columbia, Ellicott City, and Westminster, as shown in Table B-1.

**TABLE B-1
Top Ten Population Growth Areas by RPD
in the Baltimore Region, 1990 & 2000**

RPD Name	Population 1990	Population 2000	Pop. Change 1990-2000
Bel Air - Fallston	55,390	74,160	18,770
Crofton	24,599	43,297	18,698
Edgewood - Joppa	56,988	75,424	18,436
Columbia	78,265	96,230	17,965
Elkridge	17,511	32,490	14,979
Ellicott City	40,311	53,500	12,989
Randallstown	26,185	36,786	10,601
Odenton	14,932	25,499	10,567
Perry Hall - White Marsh	45,702	55,299	9,597
Westminster	26,621	35,948	9,327

Source: Cooperative Regional Forecast Round 5-B, December 2000.

These RPDs are among those that have attracted new business establishments to serve new residents, as BMC building permit data suggests. The services industry, in particular, has been significantly altered by shifting suburban population. Because new commercial businesses are service-oriented, service jobs are created when this type of construction occurs. Such commercial development activity is a key bell-weather of services sector employment expansion. Commercial construction includes office, retail, hotel or motel, hospital, nursing home, and institutions.

According to BMC's Building Permit Data System⁶ for the region, Anne Arundel County ranked first in commercial construction in 2000, with about \$123 million in new permits; of these, \$54.6 million was at Arundel Mills Mall. Howard County ranked second with nearly \$85 million; of these, \$51 million was in the Columbia area. Carroll County ranked third with about \$56 million; almost all of these were in Manchester and Westminster. Baltimore County ranked fourth with about \$42 million dispersed throughout the jurisdiction. Baltimore City ranked fifth with \$16.5 million; of these, \$9.8 million was concentrated in East Baltimore. Harford County ranked last with only \$6.2 million dispersed throughout the jurisdiction.

The percent change in new commercial construction during 1991-2000 follows a similar pattern, whereby Anne Arundel County grew the fastest, followed by Carroll County, and Howard County. Harford County, Baltimore County, and Baltimore City all experienced a decline in the rate of new construction. In 1991, Baltimore City had only 13.5 percent of the region's share of new commercial construction permit dollars, which declined to 5 percent in 2000. New retail and service destinations are being constructed primarily in the region's suburbs. This is where new retail and service jobs will follow. Retail trade and services are the primary employment sectors for low skilled and low wage workers, which include most TANF recipients. These employment sectors will be discussed further in this section.

While 80 percent of TANF recipients live in Baltimore City, only 32 percent of the region’s jobs are located in Baltimore City; 68 percent of the region’s jobs are in the suburban jurisdictions.⁷ In 1997, Baltimore City registered 465,000 total full- and part-time jobs. By comparison, the region’s five suburban counties accounted for 982,600 jobs.

Between 1990-1997 the Baltimore region gained a total of 38,000 jobs. Although suburban jurisdictions gained 90,100 jobs, it was offset by Baltimore City’s loss of 51,200 jobs. The distribution in the region is indicative of the continuing national trend of increasingly expanding suburban-based employment clusters. There was a 10 percent gain in jobs in suburban jurisdictions, while there was a 10 percent loss in jobs in Baltimore City. In the seven-year period, Howard County experienced the most job growth, a 30 percent increase, due to its 32,000 new jobs. The change in distribution of jobs by jurisdiction is listed in Table B-2.

TABLE B-2
Jobs by Place of Work by Jurisdiction
in the Baltimore Region, 1990 & 1997

Jurisdiction	No. of Jobs 1990	% of Region 1990	% of Suburban Total 1990	No. of Jobs 1997	% of Region 1997	% of Suburban Total 1997	Change in Jobs 1990-97	% Change in Jobs 1990-97
Anne Arundel County	253,200	18%	28%	269,400	19%	27%	16,200	6%
Baltimore City	516,200	37%	--	465,000	32%	--	-51,200	-10%
Baltimore County	402,400	29%	45%	423,800	29%	43%	21,400	5%
Carroll County	53,100	4%	6%	62,400	4%	6%	9,300	18%
Harford County	7,600	1%	1%	8,700	1%	1%	1,100	14%
Howard County	107,800	8%	12%	140,000	10%	14%	32,200	30%
Baltimore Region	1,408,700	100%	--	1,447,600	100%	--	38,900	3%
Suburban Jurisdictions	892,500	63%	100%	982,600	68%	100%	90,100	10%

Source: U.S. Bureau of Economic Analysis, Total Employment by Place of Work, *Regional Economic Indicators 2000 Edition*, Baltimore Metropolitan Council, January 2000.

Counter Urbanization in the Baltimore Region

National trends of population and employment moving from the cities and inner ring suburbs to outer suburbs also apply to the Baltimore region. In an unpublished report, *A New Framework for Regional Development*, the Regional Development Advisory Committee (RDAC) of the Baltimore Metropolitan Council asserts, "As we look at the development patterns shaping the Baltimore region, a major trend is the continued exodus from Baltimore City to the surrounding suburbs... Overall, when the 2000 Census returns are in, we expect the City's population to have decreased by more than 110,000 persons in the last decade, a decline of more than 15 percent... Baltimore County, the region's largest jurisdiction, is expected to show population growth of a modest 5 percent in the 1990-2000 period. Communities in northwestern Baltimore County, such as Owings Mills and parts of Randallstown are growing rapidly. However, these gains are offset by population losses in many of the older inside-the-Beltway communities. Neighborhoods in these older suburbs, like Parkville, Dundalk and Arbutus, are experiencing many of the same challenges apparent in the city... The fastest growing jurisdictions over the past decade have been Howard and Carroll Counties, increasing by an estimated 31 and 26 percent, respectively. In Howard County, the growth rate in parts of Columbia is stabilizing, while Ellicott City and the western portion of the county are booming. In Carroll County, the fastest growing areas are Westminster and Eldersburg. Other areas with high growth rates include Crofton in Anne Arundel and Bel Air and Edgewood-Joppa in Harford County."⁸

Major Employment Sectors

According to the U.S. Census Bureau County Business Patterns employment data from 1997, the Baltimore region's industries that provide the largest source of employment were retail trade, manufacturing, services, government, and finance, insurance, and real estate (FIRE). These industrial divisions are identified by Standard Industrial Classification (SIC) codes.⁹ A two-digit code is assigned to each major industry group. Major industry groups are subdivided, and digits are added to make three- and four-digit codes as categories become more specific. For example, SIC code 80 is Health Services, 806 is Hospitals, and 8062 is General Medical and Surgical Hospitals. Among the two-digit industrial groups, those providing the largest source of employment in the region were health services, business services, eating and drinking places, special trade contractors, wholesale trade, educational services, miscellaneous retail, food stores, and social services. Table B-3 lists the number of jobs in these top ten industrial groups.

**TABLE B-3
Top Ten Industry Groups
in the Baltimore Region, 1997**

SIC Code	Industry Group	No. of Jobs
80	Health Services	126,200
73	Business Services	78,000
58	Eating and Drinking Places	70,400
17	Special Trade Contractors	42,400
50	Wholesale Trade, Durable	33,600
82	Educational Services	31,700
59	Miscellaneous Retail	30,500
54	Food Stores	30,400
83	Social Services	25,900
51	Wholesale Trade, Non-durable	24,000

Source: U.S. Census County Business Patterns, Total Employment by Type of Activity, *Regional Economic Indicators 2000 Edition*, Baltimore Metropolitan Council, January 2000.

Occupations for Low Wage Job Seekers

Due to skill and experience requirements, welfare recipients are not eligible for all of the jobs created by the top ten industry groups. Typically, welfare recipients qualify for low wage or entry level jobs, generally those that do not require extensive education or prior work experience paying \$12.00 per hour or less. The leading low wage occupations and their job requirements are as follows, according to the Occupational Outlook Handbook 1998-1999 Edition, U.S. Department of Labor, Bureau of Labor Statistics.

Cashiers

Although cashier positions have no specific educational requirements, employers typically favor applicants with a high school diploma. Most training for cashiers takes place on the job under the direction of an experienced worker. Cashiers require good dexterity, basic math skills, ability to do routine work accurately, neat appearance and strong interpersonal and communicative skills for dealing with the public. Other skills that are sometimes necessary are typing, handling money, and operating specialized equipment.

Food and Beverage Preparation and Service Workers

Food and beverage preparation and service workers include cooks and other kitchen workers, waiters, hosts, dining room attendants, counter attendants and fast food workers. Personal qualities are essential such as a pleasant disposition, communication skills, and a neat appearance. Kitchen workers require little education and usually begin as fast food or short-order cooks. The majority of kitchen workers are employed in restaurants and other retail eating and drinking places. Dining room attendants assist waiters and bartenders by cleaning tables, clearing tables of dirty dishes, and ensuring the service area is properly stocked with supplies. Counter attendants take food orders at counters. Food and beverage workers have no specific educational requirements. Employers typically seek workers with a high school diploma for waiters, bartenders, and host positions, while fast

food, counter attendants, dining room attendants and bartender helpers usually do not require a high school diploma.

Freight and Stock Laborers, Helpers and Material Movers by Hand

Freight and stock laborers move materials to and from storage and production areas, loading docks, delivery vehicles, ships, and containers. The majority of these occupations do not require work experience or specific training, while some employers seek workers with a high school diploma or union membership. Nearly one out of four works part time, while an increasing number are on a temporary or contract basis.

General Office Clerks

Duties of general office clerks include bookkeeping, typing, using office machines, filing, and other administrative duties. Employers typically seek workers who have a high school diploma, as well as basic computer skills, working knowledge of word processing software, and general office skills.

Guards and Watch Guards

The duties of guards reflect the needs of the property they are hired to protect. Typically, guards must be at least 18 years old with no prior convictions with respect to perjury or violence, pass a background examination, and complete classroom training. Neat appearance, good personal habits, mental agility, and a friendly manner are also desired. A large majority of employers provide instruction before a guard begins work, followed by additional on-the-job training. Training may encompass electronic security equipment, public relations, protection, report writing, crisis deterrence, and first aid.

Home Health Aides

Under federal law, home health aides must pass a competency test that includes communications skills; observation, reporting, and documentation of patient status and the care or services furnished; reading and recording vital signs; basic infection control procedures, basic elements of body function and changes; maintenance of a clean, safe and healthy environment; recognition of and procedures for emergencies; the physical, emotional and developmental characteristics of patients served; personal hygiene and grooming; safe transfer techniques; normal range of motion and positing; and basic nutrition.

Janitors and Cleaners

The required skills for janitors and cleaners include simple arithmetic and ability to follow instructions. Most janitors and cleaners acquire their skills while on the job. However, additional skills may be obtained via programs run by unions, government agencies or employers. These programs typically provide training in the use of machinery, handling cleaning agents, and through cleaning procedures.

Library Assistants and Bookmobile Drivers

Library assistants must have the ability to follow directions, receive and check out books, compute fines, communicate with library patrons, review records, and use computers to update records. Bookmobile drivers must have the same skills as library assistants. However, they must also have a driver's license, record statistics on circulation and bookmobile visitors, and keep track of mileage.

Medical Assistants

Medical assistants require no formal training and applicants usually need only a high school diploma or the equivalent. However, helpful high school courses are math, health, biology, typing, bookkeeping, computers, and office skills. Medical assistants deal with the public and, thus, must have a pleasant and courteous manner. Vocational-technical centers, post-secondary vocational schools, community and junior colleges, four-year colleges, and universities all offer formal programs in medical assisting. These courses cover anatomy, physiology, medical terminology, typing transcription, record keeping, accounting, insurance processing, laboratory techniques, clinical diagnostic procedures, pharmaceutical principles, medical administration and first aid.

Motor Vehicle Operators

Many employers prefer to hire high school graduates to operate motor vehicles. A driver's license is required. Driver training courses are an asset and such courses are offered at high schools. Driving experience in the armed forces is an advantage.

Nursing Aides, Orderlies, and Attendants

Neither high school diploma nor previous work experience is necessary to be a nursing aide, orderly, or attendant. However, hospitals may require some experience. Nursing homes sometimes hire inexperienced workers who must complete 75 hours of training. Nursing aide training is available in high schools, vocational-technical centers, some nursing homes and community colleges.

Preschool Teachers and Child Care Workers

Often, employers will hire preschool teachers and child care workers with a high school diploma and minimal experience. Still, many states prefer preschool teachers and child care workers to have a Child Development Associate credential, which is offered by the Council for Early Childhood Professional Recognition.

Receptionists and Information Clerks

A high school diploma or the equivalent is the typical job requirement for receptionist and information clerks. Employers also desire workers with good interpersonal skills and computer experience. In particular, receptionists usually acquire skills by on-the-job training. Nonetheless, formal office training/education, prior word processing and computer experience are preferred. Receptionists must have the ability to operate the phone system, fax machine, computers, as well as greet guests and distribute mail and parcel deliveries.

Retail Sales Persons

No formal training is required for retail sales workers. However, employers increasingly prefer high school diplomas. Interpersonal and communication skills are necessary, as well as a neat appearance. Other desirable skills, which are often provided by on-the-job training, include knowledge of customer service, security, store policies/procedures, and operating the cash register.

Roofers Helpers

Roofers obtain skills through informal work as helpers of experienced roofers, while others train through a three-year apprenticeship organized and administered by local union-

management committees representing roofing contractors and locals of the United Union of Roofers. Additionally, a high school education or courses in mechanical drawing and basic mathematics are advantageous.

Stock Clerks

There are no specific educational requirements or required work experience for stock clerks. Nonetheless, stock clerks must have the ability to keep records, organize goods, mark items, and use scanners and computers to keep inventory up to date.

Truck Drivers-Light, Delivery Route Workers

Many employers prefer to hire high school graduates. A truck driver's license is required. Driver training courses are an asset and such courses are offered at high schools. Driving experience in the armed forces is an advantage.

Videotape Rental Stores - Counter and Rental Clerks

Although many employers prefer workers with a high school diploma or equivalent, counter and rental clerks are entry level and typically require no experience and little education. Often, counter and rental clerks provide a source of income for workers who are unemployed or semi-retired.

Concentrations of Low Wage Jobs by Industry Group

The entry level, low wage occupations identified above are primarily found within fourteen industry groups at the SIC two-digit level: health services, business services, eating and drinking places, special trade contractors, durable wholesale trade, educational services, miscellaneous retail, food stores, social services, general merchandising stores, hotels and other lodging places, personal services, and manufacturing. The first ten groups are the leading source of all employment in the region, while the last four are likely to provide employment opportunities for welfare recipient job seekers.

Each of the fourteen groups employs various skill and wage levels of workers. For instance, the health services industry includes physicians, pharmacists, business managers, nurses, orderlies, attendants, food preparers, and office clerks. It must be determined how many of these are entry level, low wage positions. The U.S. Department of Commerce's Bureau of Economic Analysis has determined national staffing patterns by industry groups, based upon a survey of employers nation-wide called the Occupational Employment Statistics (OES) of Industry Staffing Patterns Estimates of Employment and Wages.¹⁰ National OES staffing pattern ratios were applied to the Baltimore region in order to determine the proportion of entry level, low wage jobs that are potentially within each RPD.

The total number of jobs by industry group in each RPD was determined using commercially-available employer databases, including Dun and Bradstreet, and InfoUSA from December 1999. RPDs with the highest total number of jobs in the fourteen industry groups were analyzed further, in order to determine the potential number of low wage jobs in each. OES ratios were applied to each of the industry groups and their subgroups (two- and three-digit SIC codes) in the high-employment RPDs, resulting in the identification of RPDs with the highest concentration of low wage jobs.

Distribution of Employment Centers

From the analysis of industrial groups by RPD, employment centers for entry level and low wage workers were identified. Employers in these areas are most likely to hire individuals with limited education or lack of work experience. In order for an RPD to be considered an employment center, its total employment must exceed 10,000 jobs and the number of potential low wage jobs must exceed 1,000. The employment center RPDs are listed in Table B-4, with the numbers of total jobs and low wage jobs in each. The Stewart Corner RPD, home to Arundel Mills Mall, is absent from this list because the mall opened October 2000 and those jobs were not included in the employment data collected. Arundel Mills Mall is considered a new destination for job seekers. Map B-1 shows the distribution of high-employment RPDs with concentrations of low wage jobs, as indicated by gray shading determined by natural breaks classification.

TABLE B-4
Employment Centers in the Baltimore Region, 1999
(RPDs with Potentially High Numbers of Low Wage Jobs)

RPD, Identified as Employment Center	Total Jobs*	Potential Low Wage Jobs**
Metro Center	140,764	10,045
Columbia	55,074	8,730
Towson	64,809	6,893
Hunt Valley	49,414	5,911
Glen Burnie	26,767	4,880
Bel Air - Fallston	31,990	4,735
Ellicott City	25,571	4,348
Westminster	25,459	4,162
Annapolis	37,495	4,013
Edgewood - Joppa	19,386	3,724
Owings Mills	30,575	3,644
Security (Woodlawn)	34,488	3,431
Catonsville	15,466	2,715
Aberdeen - Havre de Grace	17,891	2,669
Laurel (U.S. 1 Corridor)	26,288	2,010
Perry Hall - White Marsh	12,886	1,844
East Point - Dundalk	12,656	1,669
Middle River	18,915	1,481
Friendship (BWI)	43,640	1,172

Source: Baltimore Metropolitan Council, 1999.

** Total number of jobs of the 14 major industry groups, determined using Dun and Bradstreet and InfoUSA, December 1999. ** Potential number of low wage jobs, determined using a ratio provided by the U.S. Department of Commerce Bureau of Economic Analysis Occupational Employment Survey (OES), 1999.*

[Map B-1](#) and all maps referenced in this document are available on the BMC webpage, <http://www.baltometro.org/JARCPlan.html>.

It is important to note that employer address data is ideal for the purpose of this plan. BMC's Master Establishment File (MEF) contains this type of data, which can be filtered by SIC code and number of jobs. However, the last update to the MEF was done in 1995. Since employer information significantly changes over a six-year period, the 1995 data was deemed inappropriate to use for this analysis. The 2000 MEF is scheduled for completion in August 2001, and may be used for future analysis to more accurately determine the distribution of employment centers in the Baltimore region.

Projected Job Growth in the Baltimore Region, 2000-2010

According to the Maryland Department of Planning,¹¹ during 2000 to 2010, leading employment growth in the Baltimore region will be services, retail trade, FIRE, construction, wholesale trade, and transportation and utilities. Overall, this job growth will primarily occur in suburban jurisdictions. Suburban jurisdictions will account for 83 percent of this growth (77,200 jobs), while Baltimore City will share only 17 percent of the region's new jobs (15,800 jobs).

The services sector, the region's most dominant industry, will add 77,200 jobs in the suburban jurisdictions, and 15,800 jobs in Baltimore City. However, Baltimore City's retail sector is estimated to shrink by 400 jobs. All retail sector job growth in the Baltimore region will be suburban-based with the counties generating 18,300 jobs. An additional 8,500 FIRE jobs will be in the counties, and only 100 FIRE jobs in Baltimore City. The construction industry will add 4,100 jobs in the suburban jurisdictions, while Baltimore City is expected to undergo a loss of 700 construction jobs. Wholesale trade is expected to add 3,500 new jobs in the counties, while Baltimore City is estimated to drop slightly by 0.6 percent. Transportation and utilities will add 3,300 new jobs in the suburban jurisdictions, while Baltimore City is projected to have 600 fewer jobs.

Manufacturing is projected to lose 5,800 jobs in the region between 2000-2010. The majority of the job loss will be in Baltimore City, which will lose 3,600 manufacturing jobs compared to 2,200 in the counties. The only jurisdiction expected to enjoy growth is Howard County, which is estimated to add 1,000 new manufacturing jobs. During the period 2000-2010, the government sector will lose jobs throughout the region, but Baltimore City is expected to experience the largest declines. The suburbs as a whole are projected to lose 3,300 jobs, compared to 3,500 jobs in Baltimore City.

These projections reinforce the view that occupations and industries that are oriented toward low-income people will continue to be increasingly suburban-based.

Distribution of Employment-Related Activities

Services provided to TANF recipients for employment-related activities include assessment, work readiness, mentoring, English as a second language, occupational training, and support services such as child care, transportation, housing, medical assistance, and substance abuse treatment. Many of these services are provided by local departments of social services, to which access has not been identified as a barrier. Welfare recipients and low-income people needing to access occupational training programs and child care centers face the greatest transportation barriers.

Occupational Training Programs

In the State of Maryland, training programs in the Baltimore region are generally suburban-oriented. Maryland Department of Labor, Licensing and Regulation's Apprenticeship and Training Program, and the Maryland Higher Education Commission's Private Career Schools provide most of the occupation training opportunities in the Baltimore region. Both of these rely heavily on private sector participation and, as a result, the location of training is dictated by industry needs. Map B-2 shows the specific address locations of apprenticeship and training programs, and private careers schools in the Baltimore region. This map will be used to identify the gaps in transportation for this employment-related activity in Section D.

The Apprenticeship and Training Program is offered through the State's Division of Employment and Training. The purpose of this program is to encourage the development of an apprenticeship and training system through the voluntary cooperation of management, labor, and interested state agencies in cooperation with other agencies and the federal government; provide for the establishment and furtherance of standards of apprenticeship and training to safeguard the welfare of apprentices and trainees; contribute to a healthy economy by aiding in the development and maintenance of a skilled labor force sufficient in numbers to meet the expanding needs of Maryland industry and to attract new industry; open young people to opportunity to obtain training in skilled trades and other on-the-job occupations which will equip them for profitable employment and citizenship; and promote employment opportunities for young people under conditions that provide adequate and reasonable earnings.¹² There are 281 apprenticeship and occupational training programs in the Baltimore region. Baltimore City is home to 81 of these programs, while 200 are located in the suburban jurisdictions. Students attend these programs on weeknights from 6:00 p.m. to 8:00 p.m.¹³

The Maryland Higher Education Commission has approved private career schools throughout the State of Maryland. These schools offer training in a range of fields including health services, bartending, broadcasting, business/secretarial, computers, cosmetology, dog grooming, drafting, electronics, fine arts, hazardous materials, heating/air conditioning/refrigeration, massage, mechanic technology, Montessori teaching, paralegal studies, polygraph recording, travel, truck driving, and welding. Qualifying students are eligible for state and federal tuition assistance. There are 49 private career schools in the Baltimore region. Seventeen are in Baltimore City, while 32 are in suburban jurisdictions. Classes at these career schools are generally held Monday through Friday, except most cosmetology programs also have Saturday classes.¹⁴

[Map B-2](#) and all maps referenced in this document are available on the BMC webpage, <http://www.baltometro.org/JARCPlan.html>.

Child Care Centers

In the State of Maryland, TANF recipients who are seeking work or enrolled in a job training program will receive help from their case managers with child care issues. Departments of social services will locate child care and often subsidize the cost of child care. The State defines appropriate child care as that which meets parent’s needs in terms of hours and location, meets the child’s needs in terms of health and safety, and is geared toward the healthy development of the child. It must be located within a reasonable distance from the recipient’s home, limited to one-hour travel time each way. However, most parents prefer child care located near the household. This is so that friends and family can share in delivery and pick-up responsibilities, and to avoid an additional stop on the way to work.

The Maryland Committee for Children, Inc.¹⁵ maintains a detailed database of licensed child care centers in Maryland. Information about the Baltimore region’s child care centers licensed as of 2000 was collected. Those centers were mapped by specific address, as shown in Map B-3. This map will be used to identify the gaps in transportation for this employment-related activity in Section D of this plan.

There are about 580 child care centers in the Baltimore region, with concentrations in the more densely populated areas. The majority of centers are located in Baltimore City and Baltimore County, while the fewest are in Harford and Carroll Counties. The distribution of child care centers by jurisdiction in the Baltimore region is presented in Table B-5.

**TABLE B-5
Child Care Centers by Jurisdiction
in the Baltimore Region, 2000**

Jurisdiction	No. of Child Care Centers	% of Regional Total
Anne Arundel County	99	17.0%
Baltimore City	175	30.1%
Baltimore County	174	29.9%
Carroll County	43	7.4%
Harford County	31	5.3%
Howard County	59	10.2%
Baltimore Region	581	100.0%

Source: The Maryland Committee for Children, Inc., 2000.

According to information provided by the Maryland Committee for Children, Inc., most centers open between 6:00 a.m. and 8:00 a.m., and close between 5:30 p.m. and 6:30 p.m. on Monday through Friday. Only 11 centers have evening or weekend hours, and 6 of these are in Baltimore City. Only 8 centers are open in the evening, and 2 of those evening centers are also open on Saturday or Sunday. An additional 3 centers are open on Saturday or Sunday, but not past 6:00 p.m. Capacities range from 3 to 305 children, while the majority of centers operate at capacities between 20 and 70 children.

[Map B-3](#) and all maps referenced in this document are available on the BMC webpage, <http://www.baltometro.org/JARCPlan.html>.

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Section C.

PUBLIC, NONPROFIT AND PRIVATE TRANSPORTATION SERVICES IN THE BALTIMORE REGION

There are a variety of transportation providers in the Baltimore region. Many of these providers are a potential resource for transporting TANF clients and low-income individuals to job and job-related activities. This section provides an overview of these public, nonprofit, and private services. Reverse Commute is mentioned in this section, and refers to the non-traditional daily travel pattern from a residence in Baltimore City to a job in a suburban area of the region.

Maryland Transit Administration Services

The Maryland Transit Administration (MTA) is the primary provider of public transportation in the Baltimore region. MTA operates a multi-modal network of buses, trains, and paratransit vehicles. It includes an extensive bus system, Metro Subway, Light Rail, and Maryland Rail Commuter (MARC) service.

Bus

MTA's bus system operates regularly scheduled service in every county of the region except Carroll County. Currently, there are 60 routes operating within the Baltimore region, including local, neighborhood shuttle, Metro Subway feeders, and commuter service. The majority of these routes serve areas within the Baltimore Beltway, connecting regional suburbs to downtown, and neighborhoods within the downtown area. Fourteen routes service Light Rail, Metro Subway, and MARC stations.

Local bus service operates seven days a week, with Sunday and holiday schedules. Hours of service differ widely among routes. Most routes run from early morning to late night, and a few routes offer 24-hour service. Headways range from 4 minutes to 90 minutes depending on the route, time of day, and day of the week.

Regular bus fare for a one-way local trip is \$1.35. The Day Pass is \$3.00, Week Pass is \$14.00, and Month Pass is \$54.00. These passes are valid on local buses, Light Rail, and Metro subway. The Day Pass may be used to connect with locally operated transit system buses in the Baltimore region, as well as Montgomery County's RIDE-ON buses and Washington Metropolitan Area Transit Authority's (WMATA) Metrobuses. Discounted bus fares are available for the elderly, disabled, children, and students.

There is one neighborhood shuttle bus service, called the Hampden Shuttle Bug, operating in Baltimore City. It runs Monday through Friday from 5:30 a.m. to 10:00 p.m. on 17-minute headways, and Saturday through Sunday from 8:00 a.m. to 7:00 p.m. This shuttle connects to the Woodberry Light Rail station, and three local bus routes. Regular one-way fare on the Hampden Shuttle Bug is \$.50, and \$.25 for the elderly and disabled.

MTA provides eleven commuter bus routes serving Baltimore City and several suburbs, including Annapolis, Bel Air, Columbia, Ellicott City, Essex, Havre de Grace, Laurel, and

White Marsh. Three of these routes support only the traditional commute pattern, with trips from suburb to Baltimore City. Seven routes also provide reverse commute service from Baltimore City to suburbs. In addition, MTA provides four commuter bus routes to points in Washington D.C. serving Columbia, Kent Island, and Annapolis. All commuter buses run on the traditional weekday work schedule during the morning and afternoon peak periods. Free parking is provided at MTA park-and-ride lots located in many of the suburbs with commuter bus service.

Commuter bus fare is \$1.35, plus zone charges ranging from \$1.00 to \$2.50 depending on distance traveled. The Commuter Day Pass ranges in cost from \$5.00 to \$8.00. The Commuter Month Pass is accepted on all MTA commuter bus lines, and ranges in cost from \$80.00 to \$131.00. Discounted commuter bus fares are available for the elderly, disabled, and children.

Metro Subway

MTA's Metro Subway system provides high speed heavy rail transit service in a 15.5-mile corridor from Owings Mills in western Baltimore County through downtown Baltimore to Johns Hopkins Hospital east of downtown. The service operates Monday through Friday from 5:00 a.m. to midnight, and Saturdays, Sundays and holidays from 6:00 a.m. to midnight. Sunday Metro service was reinstated in September 2001. Metro has eight-minute headways during the morning and afternoon peak periods, and ten to twenty minute headways other times. State Center station closes at 8:00 p.m. Old Court station closes at 10:00 p.m. Parking is available at Metro stations at Owings Mills, Mondawmin, and all those in between. Parking is free. Fares on the Metro Subway are the same as regular bus fares.

Light Rail

MTA's Central Light Rail Line provides medium speed transit service in a 30-mile north-south corridor from Baltimore County to Anne Arundel County. The main line runs between Hunt Valley and Glen Burnie with recent extensions to Penn Station north of downtown Baltimore and to Baltimore/Washington International Airport (BWI) in Anne Arundel County. Light Rail serves the area by linking communities in the northern and southern suburbs with the downtown core, and provides Baltimore City residents access to suburban job centers, such as those located at the BWI Airport, the BWI Business District, and the Hunt Valley office park.

There are 32 Light Rail stations, and parking is provided at 12 of these. Parking is free. The service operates Monday through Saturday from 5:00 a.m. to 1:30 a.m., and Sundays and holidays from 11:00 a.m. to 9:00 p.m. The service has 17-minute headways. Headways are reduced between the Linthicum and Mount Royal stops due to the overlap created by service to Penn Station and BWI Airport. Fares on Light Rail are the same as regular bus fares.

Maryland Rail Commuter (MARC)

MTA's Maryland Rail Commuter (MARC) service provides high speed, medium frequency commuter rail service in the Baltimore region and beyond. The 187-mile system is a commuting option for residents of Central and Northeast Maryland, the Baltimore/Washington Corridor, and the Martinsburg, West Virginia/Washington corridor.

MARC service is operated under contract with Amtrak and CSX Transportation. Parking is available at most MARC stations; some at no cost.

In the Baltimore region, MARC trains operate in two existing rail corridors totaling 77 miles with stations in all jurisdictions except Carroll County. The Penn Line runs between Perryville in Cecil County and Union Station in Washington D.C., and stops at 8 stations in the region. The Camden Line runs from Camden Station in Baltimore City to Union Station, and stops at 6 stations in the region.

Service on the Penn and Camden Lines operates at greater frequency during the peak travel periods. The Penn Line service from Penn Station to Perryville is limited to southbound travel during the morning peak period and northbound travel during the evening peak period. However, free connecting bus service is offered to MARC riders once mid-day northbound from BWI Rail Station to Baltimore Camden Station continuing onto Perryville. Connecting mid-day bus service is also provided between the Odenton Station on the MARC Penn line and selected Camden line stations.

Fares range from \$3.25 to \$9.00 one-way based on destination. Weekly and monthly passes are available, in addition to one-way and round-trip tickets. Children under age 6 may ride free with any passenger paying the full fare. Discounted passes for the elderly and disabled are available. MARC weekly and monthly ticket holders may ride MTA Local Bus, Metro Subway and Light Rail line services at no extra cost. They may also be used to ride on Montgomery County's RIDE-ON buses and on the Washington Metropolitan Area Transit Authority's (WMATA) Metrobus routes within Maryland.

Intermodal Connectivity of MTA Services

Connections can be made between the modes at various points in the system. Metro Subway has 38 connecting bus routes, with bus service at all 14 stations. Metro to Light Rail connections can be made at two stops by walking the surface streets at least one block. There are no direct or climate protected Metro to Light Rail connections. Lexington Market is the stop connecting both Metro and Light Rail, and State Center is the Metro stop near the Cultural Center Light Rail stop. Light Rail stations are serviced by a total of 33 bus routes, with bus service at 21 of the 32 stations.

Four of the fifteen MARC stations in the region can be accessed by bus. Only at Penn Station can MARC be accessed via bus, Light Rail, and Metro Subway. Camden MARC station can be accessed via bus and light rail. BWI's MARC station can be accessed via bus. Amtrak's long distance rail service can be accessed in the region at Penn Station, BWI's MARC station, and Aberdeen MARC station.

Proposed and Pending Improvements to MTA Services

MTA recently proposed changes to the transit system through 2005 in a short range bus service plan, and through 2020 in the Maryland Comprehensive Transit Plan. Objectives identified in these plans include simplifying routes, improving connectivity and intermodal transfer points, adding weekend service to some routes, developing transit hubs, neighborhood shuttles, and new services in underserved areas. The 2001 Maryland General Assembly passed legislation for the Governor's Transit Initiative, approving a \$502 million six-year mass transit spending program that will help fund these services and reduce

fares. Sunday Metro service reinstated in September 2001 was funded through this program.

The Governor's Transit Initiative includes a 19 percent fare reduction for weekly and monthly passes beginning in 2002, and the addition of job access services, commuter bus services and neighborhood shuttles. New bus routes will be exempt from the 40 percent farebox recovery requirement for the first three years of service, in order to allow time to build ridership. State employees will continue to be offered free transit on MTA as a pilot program. Smart Card integrated fare technology will be introduced in 2002.

Locally Operated Transit Systems

In addition to the transit services operated by MTA, there are four locally operated public transit systems in the Baltimore region. These systems, Annapolis Transit, Carroll Transit System, Harford County Transportation Services, and Howard Transit, provide bus service primarily within the local areas in which they operate. They are funded through a combination of federal, state and local dollars. MTA provides financial, technical, and operating support for these services.

Annapolis Transit

Annapolis Transit serves the City of Annapolis and adjacent portions of Anne Arundel County. This bus service is operated by the Annapolis Department of Transportation. General public service is provided through a system of five fixed routes (Red, Yellow, Green, Orange, and Gold), and one deviated fixed route (Brown). At Calvert and Bladen Streets, it connects with MTA's local bus service to Glen Burnie and Patapsco Light Rail stations, and commuter bus service to downtown Baltimore.

All five fixed routes operate Monday through Saturday from 5:30 a.m. to 7:00 p.m., while the Gold Route also runs on Sunday from 8:00 a.m. to 7:00 p.m. The deviated fixed route (Brown) provides curb-to-curb service for disabled passengers Monday through Saturday from 7:00 a.m. to 10:00 p.m. and from 8:00 a.m. to 7:00 p.m. on Sunday. Headways on all routes are 30 to 60 minutes. One-way fares are \$.75 for the general public, \$.35 for the elderly and disabled with Annapolis Transit identification cards during non-rush hours on fixed routes, and free for children under age 6 with a fare-paying adult. Annapolis Transit honors MTA passes.

Carroll Transit System

Carroll County provides service through a contract with a nonprofit operator, Carroll County Senior Overland, Inc. (Carroll Transit System). It operates deviated fixed route loop service in Westminster, and demand response service in the rest of the County. The deviated fixed route in Westminster runs five trips per day. In addition, demand response routes offer transportation for the elderly and general public around the County. Ridership is divided almost equally between them.

The Carroll Transit System does not connect with other transit systems. Deviated fixed route service operates Monday through Friday from 9:00 a.m. to 4:00 p.m. Supplemental

demand response service operates Monday through Friday from 8:00 a.m. to 5:00 p.m. Fares range from \$1.00 to \$2.00 one-way for all riders. MTA passes cannot be used on Carroll Transit System since it does not connect with MTA service.

Harford County Transportation Service

The Harford County Transportation Service (HCTS) provides fixed route and demand response bus services to the general public, and the elderly and disabled populations of Harford County. Five local routes link the towns of Havre de Grace, Aberdeen, Joppatowne, Edgewood, Fallston, and Bel Air. Route 4 connects MARC Aberdeen Station with MTA's commuter bus service to downtown Baltimore. Local fixed route service operates Monday through Friday from 6:25 a.m. to 6:30 p.m. Headways range from 50 minutes to 2.5 hours. Demand response service operates Monday to Friday from 8:30 a.m. to 4:30 p.m. Local one-way fare is \$1.00 for the general public and \$.50 for the elderly and disabled. HCTS honors MTA passes.

HCTS also operates one long distance fixed route reverse commute bus from Baltimore City to employment centers in Harford County along the I-95/U.S. 40 corridor. This Monday to Friday service offers three runs eastbound in the morning, and three runs westbound in the evening. Connecting service to MTA Metro and MTA local bus is available at Johns Hopkins Hospital and Eastpoint Mall. Regular one-way fare is \$2.85, and fare for the elderly and disabled is \$1.40. MTA Commuter Bus day passes and monthly passes are accepted.

Howard Transit

Howard Transit, formerly Howard Area Transit Service (HATS) prior to October 2000, is the general public transportation provider in Howard County. Howard Transit provides eight fixed routes serving the Columbia and Ellicott City area, and offers connections with MTA service at two MARC stations (BWI Rail and Savage) and one Light Rail station (BWI Business District). It also connects with MTA commuter bus service at Columbia Mall, and MTA local bus service at Arundel Mills Mall.

Routes generally operate Monday through Saturday from 6:00 a.m. to 7:00 p.m, except the Red Express Route from Columbia Mall to Arundel Mills Mall and BWI Airport, which operates Monday through Saturday from 7:00 a.m. to midnight, and on Sunday from 10 a.m. to 8 p.m. Headways are 45 minutes to 1 hour. Fares for this service are \$1.00 for adults, \$.25 for elderly and disabled, \$.75 for children age 6 to 18, and free for children under 40 inches tall. Howard Transit honors MTA passes, and the Maryland Mover (Connect-A-Ride) pass.

Other Fixed Route Transit Services

Connect-A-Ride, Spirit Shuttle/The Link, and Nixon Shuttle are other transit services in the region that provide access to jobs. Connect-A-Ride and the Spirit Shuttle/The Link are relatively new initiatives operated by nonprofit corporations. Connect-A-Ride is funded through a combination of private, federal, state, and local dollars. The Spirit Shuttle/The Link services are funded by employers in the service area. Nixon Bus Services is a private company that runs its own route, and subcontracts other service.

Connect-A-Ride

Corridor Transit Corporation (CTC), an affiliate of the Baltimore/Washington Chamber of Commerce, manages Connect-A-Ride. Connect-A-Ride primarily serves suburb-to-suburb commuters in the Laurel area. Approximately 70 percent of CTC's riders are going to and from work. In the Baltimore region, it provides seven bus routes with service to Columbia, Glen Burnie, and Odenton.

Connect-A-Ride service generally operates Monday through Friday from 6 a.m. to 6 p.m., and Saturdays from 9 a.m. to 6 p.m. Two routes (J and K) operate Monday through Sunday from 9 a.m. to 10 p.m. Headways range from 45 minutes to one hour or more. Connections to MTA bus, Light Rail, and MARC service are offered at Arundel Mills Mall, Cromwell Light Rail station, and Odenton and Laurel MARC stations.

Fares are \$1.00 for adults, \$.50 for the elderly and disabled, and free for children under 40 inches tall. A day pass for Connect-A-Ride service, called the Maryland Mover (also honored on Howard Transit), can be purchased for \$2.50. The NSA/Fort Meade Express bus fare is \$1.25. Connect-A-Ride honors MTA passes.

Spirit Shuttle/The Link

The BWI Business Partnership, Inc., a nonprofit economic development and transportation management association, serves a daytime population of over 150,000 employees in the Baltimore/Washington International Airport (BWI) district. This is a major employment center in the Baltimore region. To enhance transportation services available to workers and visitors, the BWI Business Partnership operates shuttle buses in that area.

There are two Spirit Shuttle bus routes, and a third route called The Link. Two Spirit Shuttle routes provide service from Savage MARC and Jessup MARC commuter rail stations to worksites throughout the U.S. 1 Corridor, Columbia Gateway, and Airport Square area of the BWI Business District, including the National Security Agency. The Link shuttle bus connects MTA's BWI Business District Light Rail station and BWI MARC/Amtrak Rail station, with continuing service to Arundel Mills Mall.

The two Spirit Shuttle routes operate Monday through Friday, with four one-way trips between 7:00 a.m. and 9:00 a.m. and four one-way trips in the afternoon between 4 p.m. and 7:00 p.m. The Link route operates Monday through Friday from 5:45 a.m. to 5:45 p.m. with 35-minute headways. These BWI Business Partnership shuttle services are free and open to the public. Guaranteed Ride Home service is available to BWI Business Partnership member employees.

Nixon Shuttle Services, Inc.

Nixon Shuttle Services, Inc. operates the Severn Shuttle in northwest Anne Arundel County, with service to Cromwell Light Rail station, Arundel Mills Mall, Boys and Girls Club, and Harundale Plaza. This Nixon Shuttle route runs three roundtrips Monday through Friday from 5:30 a.m. to 9:10 a.m., and from 2:45 p.m. to 7:20 p.m. Fares are \$2.00 for adults,

\$1.00 for the elderly with MTA identification, and free for children age five and under. A book of 10 day passes can be purchased for \$15.00. Nixon Shuttle does not accept any other passes.

Map C-1 shows all fixed route transit services in the Baltimore region, as described above. It does not include deviated fixed route or demand response transit services. In the map legend, MTA Core Bus includes local bus, neighborhood shuttle, and Metro subway feeder service. MTA Commuter Bus is shown separately. Transit route information is a compilation of digital and paper maps provided by MTA and local providers. Baltimore Metropolitan Council is listed as the source primarily because the map is based on several sources that BMC compiled and edited. Additionally, BMC staff regularly updates the transit routes when service changes occur.

Private Transportation Providers

The Maryland Public Service Commission regulates all passenger carrier van and limousine companies in Maryland, and taxicab services in Baltimore City and Baltimore County. Six other agencies regulate taxi services in the rest of the region. The majority of van and limousine passenger carriers in the Baltimore region have one vehicle, about 20 carriers have medium-sized fleets (20-50 vehicles), and about 5 carriers have large fleets (80-100 vehicles). Vehicles include sedans, limousines, vans, motor coaches, trolleys and other types of buses. Yellow Van Services has the largest fleet, with about 170 vehicles.¹⁶

Most van and limousine passenger carriers in the Baltimore region provide service to seniors, people with disabilities, and economically disadvantaged people. Some of these carriers were trained in the AdVANtage Van Service Entrepreneurs Project, and AdVANtage II program (see description below). They may be hired for individual trips or by agency contract, and fares vary widely. Trips requiring handicapped-equipped vehicles tend to cost more.

Transportation Services for People with Disabilities

All public transit systems, including Connect-A-Ride, offer specialized service for people with disabilities by providing lift-equipped vehicles. In addition, the MTA's train stations are accessible to people with disabilities. The MTA and locally operated transit systems offer deviated route and or demand response paratransit service to riders unable to use fixed route accessible services. Public paratransit services in the Baltimore region are curb-to-curb, shared-ride services that require appointments scheduled in advance.

Annapolis Transit provides service for people with disabilities through a deviated fixed route system on its Brown Route. The Brown Route has a 60-minute headway running in both directions. It operates Monday through Saturday from 7:00 a.m. to 10:00 p.m., and from 8:00 a.m. to 7:00 p.m. on Sunday. The fare for route deviated fixed route service is \$1.50 one-way. All Annapolis Transit buses are lift-equipped.

Baltimore County's Department of Aging manages CountyRide, a demand response paratransit service for the elderly and disabled, as well as the general public in rural areas

[Map C-1](#) and all maps referenced in this document are available on the BMC webpage, <http://www.baltometro.org/JARCPlan.html>.

only. This service operated Monday through Friday from 8:00 a.m. to 4:00 p.m. with supplemental taxi service during all other hours. All CountyRide vans are wheelchair accessible, and have low-step entrances. Ticket books are sold for discounted fares. Fares are the same for supplemental taxi service. The elderly and disabled pay one ticket (\$2.50) or \$3.00 cash per trip. Rural residents pay two tickets (\$5.00) or \$6.00 cash per trip. All fares double when the trip crosses the City/County line.

As previously noted, Carroll Transit System operates a deviated fixed route service in Westminster, and demand response service in the rest of the County. The deviated fixed route in Westminster runs five trips per day. In addition, demand response routes offer transportation for the elderly and disabled. Deviated fixed route service operates Monday through Friday from 9:00 a.m. to 4:00 p.m. Supplemental demand response service operates Monday through Friday from 8:00 a.m. to 5:00 p.m. Fares for these services range from \$1.00 to \$2.00 one-way. Lift-equipped vehicles are available upon request.

Harford County Transportation Service (HCTS) provides demand response paratransit service for the elderly and disabled Monday through Friday from 8:30 a.m. to 4:30 p.m. This service is offered on a first-come first-serve basis, and the fare is \$.50 one-way. All HCTS buses are lift-equipped, including those on fixed route service.

In Howard County, Howard Transit provides demand response paratransit service, called HT Ride, for the elderly and disabled Monday to Friday from 9:00 a.m. to 4:30 p.m. One-way fare for this service is \$1.00. All Howard Transit buses are lift-equipped.

The MTA provides paratransit service within a three-quarter mile of any fixed route service in Baltimore City, Baltimore County, and Anne Arundel County. MTA's paratransit service is not offered within a three-quarter mile of any commuter bus route or MARC rail commuter routes. The one-way fare on paratransit service is \$1.55. Many area employers and health care providers sell prepaid books of 20 paratransit ride tickets for \$31.00.

Approximately 60 percent of the MTA bus fleet is lift-equipped. Lift service varies on each bus line and may be available only at certain times of the day, according to the published schedules. The MTA Call-A-Lift service, scheduled in advance, provides lift-equipped buses on any route that does not have prescheduled accessible buses.

Metro Subway, Light Rail and MARC stations are fully accessible to people with disabilities. Metro offers elevators and escalators at station entrances for passengers to access the mezzanine and platform levels. Braille station guides are installed at all Metro subway station entrances. At Light Rail stations, high block boarding ramps are available for riders unable to use the steps to board the train. There are seats in the front of each bus as well as on the Light Rail and Metro subway that are designated as priority seats for the elderly and disabled. The MTA requires that these seats be made available to eligible customers upon request.

To supplement paratransit services, some government agencies in the region contract with private and nonprofit transportation providers to help meet their clients' needs at discounted fares. For example, the Anne Arundel County Department of Aging and the Baltimore City Commission on Aging and Retirement Education offer a taxicab voucher program to eligible elderly and disabled participants.

FTA Job Access and Reverse Commute Funded Services

Several job access transportation initiatives in the Baltimore region have been made possible by the FTA Job Access and Reverse Commute (JARC) competitive grant program. All public routes funded through JARC in the Baltimore region are fare-integrated with MTA services to allow riders to easily transfer between systems. Local providers work with MTA to coordinate the route and determine the cost. MTA submits a statewide application on behalf of the region, and disperses the funding. The JARC funded programs currently operating include fixed route transit, ride brokering, coordinating multiple providers, and employee shuttle services for interviews, job fairs, and daily commute.

Fixed Route Transit

Locally operated services receiving FTA Job Access and Reverse Commute funding are Connect-A-Ride Routes J, K, and L, Annapolis Transit Gold Route, Harford County Transportation Services (HCTS) U.S. 40 Reverse Commute Route, and Howard Transit Red Express. These bus routes were designed to provide Baltimore's low-income workers access to jobs sites in outlying suburban areas.

Connect-A-Ride Routes J and K primarily serve employees of Arundel Mills Mall. Buses on each route run approximately every hour Monday through Saturday from 8:30 a.m. to 11:00 p.m., and approximately every hour Sunday from 10:00 a.m. to 7:00 p.m. Route L is a free shuttle that serves Odenton MARC patrons that work at nearby industrial employment centers in the MD 170 corridor, and operates Monday through Friday during morning and afternoon peak periods on the MARC train schedule.

Annapolis Transit Gold Route primarily serves downtown Annapolis, the bus transfer center, Westfield Shoppingtown, Parole, and Annapolis Harbour Center. The Gold Route runs every hour Monday through Saturday from 5:30 a.m. to 7:00 p.m., with on-call service until 10:00 p.m. those days, and every hour on Sundays from 8:00 a.m. to 7:00 p.m. As part of its Job Access initiative, Annapolis Transit coordinates a shared-ride taxi program to provide transportation after regular bus operating hours.

HCTS U.S. 40 Reverse Commute Route runs from Johns Hopkins Hospital in Baltimore City to employment centers in Harford County along the I-95/U.S. 40 corridor, including Eastpoint Mall, Fashion Park, and several industrial and business parks. This Monday through Friday service provides three trips to Harford County and back throughout the day to cover all three shifts. Guaranteed Ride Home is offered to patrons of this service.

The Howard Transit Red Express bus route links the BWI Light Rail station with employment sites in Howard and Anne Arundel Counties, including U.S. 1 industrial parks, Maryland Wholesale Food Center, Snowden Square, Columbia Mall, and Arundel Mills Mall. Red Express buses run every 45 minutes Monday through Saturday from 7:00 a.m. to 12:15 a.m., and Sunday from 10:00 a.m. to 8:30 p.m. This is the only Howard Transit route operating on Sundays.

Shared-ride Taxi Program

Annapolis Transportation coordinates a shared-ride taxi program in order to reduce the commuting costs for employees who require taxi service after regular bus operating hours. Many low-income second and third shift workers use Annapolis Transit for one part of their

commute, but must use a taxi to complete their trip. In this program, employees share the taxi and the cost of the trip. Annapolis Transportation recruits employers, matches them with taxi companies with large capacity vehicles, and helps them set up a payment contract.

Career Caravan

The Career Caravan is managed by Howard County's Division of Transportation Planning. It is a free shuttle service for eligible participants living in areas of high unemployment in Baltimore, primarily in the Empowerment Zone, allowing access to jobs in Howard County. This deviated fixed route service has a flexible pick-up and drop-off schedule, but mainly for traditional work hours. It has been operating since November of 1999, and is partially funded by the FTA Job Access and Reverse Commute grant program. Participants are recruited by TANF vendors, and in coordination with Baltimore City Department of Social Services and Empowerment Baltimore Management Corporation. Transportation is provided to take program participants to job interviews and, once hired, they receive daily commuter transportation, including Guaranteed Ride Home as needed. The program also brings together Baltimore City residents with Howard County employers at job fairs.

Workforce Transportation & Referral Center

The Workforce Transportation & Referral Center (WTRC) provides intrajurisdictional transportation coordination through ride brokerage services, connecting employers and job placement and TANF vendors to workers and transportation providers. This service began in July of 2000, partially funded by the FTA Job Access and Reverse Commute grant program. Using comprehensive databases and trained consultants, the WTRC provides commuters, especially those working non-traditional hours, affordable access to remote job sites and childcare facilities. The WTRC markets their services by using a brochure and website, and by hosting informational forums. WTRC also transports customers to job interviews and for Guaranteed Ride Home as needed.

Job Placement Transportation Service Partnership

Maryland Community Kitchen, in partnership with several other human service agencies, transports economically disadvantaged people in Baltimore City to job interviews in areas outside of the City. The Job Placement Transportation Service Partnership coordinates group interviews with employers who pay a living wage, focusing on the U.S. Highway 40 industrial area in Harford County, with three trips out in the morning and three trips back in the evening. This service began in July of 2000, partially funded by the FTA Job Access and Reverse Commute grant program. Once job applicants are hired, the Partnership continues to provide transportation services until they receive their first paycheck. When these individuals are no longer eligible for this service, they are referred to the Workforce Transportation & Referral Center to access long term transportation.

VAN ARUNDEL

VAN ARUNDEL is a coordination program to consolidate the existing human service transportation in order to more effectively meet employment-related transportation needs of welfare recipients and low-income residents in Anne Arundel County. VAN ARUNDEL will provide demand response service to jobs and interviews as a result of coordination. High school students will be offered internships and mentoring opportunities through this program. VAN ARUNDEL will provide a revolving loan fund to replace providers' aging vehicles and accept van donations from non-profits to be used by welfare recipients.

Planning for the program began in 1999. This phase includes conducting an in-depth inventory of services, establishing a centralized call center, building relations with the business community, and running a marketing campaign. VAN ARUNDEL will soon be operational.

Map C-2 shows the FTA Job Access and Reverse Commute funded fixed route and demand response bus services currently operating in the Baltimore Region. Fixed route bus services include Connect-A-Ride Routes J, K, and L, Annapolis Transit Gold Route, Harford County Transportation Services U.S. 40 Reverse Commute Route, and Howard Transit Red Express. Demand response shuttle and deviated fixed route services are shown as arrows pointing to connected service areas, and include Job Placement Transportation Services and Career Caravan. Bridges to Work service does not appear on the map because the program ended on July 20, 2001.

Bridges to Work

Bridges to Work (BtW) began as a four-year empowerment research demonstration program, sponsored by HUD, and operated in five selected U.S. cities, one of which was Baltimore. The goal of the initiative was to connect inner city residents with suburban employment opportunities, and bring local partners together to provide job placement, transportation, and support services.

Due to the success of Baltimore's BtW, it continued operating the research demonstration program with funding from the FTA, Empower Baltimore Management Corporation, and The Abell Foundation until July 2001. Historic East Baltimore Community Action Coalition (HEBCAC), a community based organization, managed the program. HEBCAC collaborated with the City of Baltimore Office of Employment Development and a number of job training and placement agencies. This coordination allowed HEBCAC to identify riders and helps the other agencies find rides to work for their clients. The agency also had an arrangement with the BWI Business Partnership for outreach to employers in the airport district.

Door-to-door demand response van service was provided 24 hours a day, seven days a week for BtW participants from Baltimore City neighborhoods to employment centers in Harford, Howard, and Anne Arundel Counties. Van service was free for job interviews and during the first two weeks on the job. Thereafter, a nominal fee for transportation services was charged. Support services such as pre- and post-employment counseling were provided by BtW staff and partner agencies.

[Map C-2](#) and all maps referenced in this document are available on the BMC webpage, <http://www.baltometro.org/JARCPlan.html>.

Guaranteed Ride Home

Guarantee Ride Home (GRH) is a transportation management program that employers provide as a benefit and incentive to their employees who do not drive a car to work. Employees who regularly bike, walk, carpool, or take transit are guaranteed a free ride in cases of personal emergencies and unscheduled overtime.

One of the major reasons why people feel uncomfortable about taking a job that is not close to home is the fear of being without a quick and reliable way to get home in case of an emergency. GRH is especially comforting to employees responsible for children, and to urban residents who are hesitant to work in the suburbs.

The employer pays an annual fee based on its number of employees to contract with a taxi service, sometimes through a transportation management association, such as the BWI Business Partnership. Once the employee registers for the program, when in need of a ride home or elsewhere, the employee would request a taxi voucher and dispatcher phone number from the designated supervisor. Other types of GRH programs involve employee use of company vehicles for a limited amount of time.

Other Job Access Transportation Services

Other programs to improve job access in the region include van operator training programs, carpools, car donations, and coordination projects. These projects have not received FTA Job Access and Reverse Commute grant funding.

AdVANtage II

The AdVANtage II program was closely modeled after AdVANtage Van Service Entrepreneurs Project in Anne Arundel County that ran in 1998. The Baltimore City Department of Social Services worked with Sojourner-Douglass College and MTA to initiate the AdVANtage II program. The goal of AdVANtage II is to train eligible TANF clients to become self-employed Minority Business Enterprise van operators. These operators would be contracted by local departments of social services to provide affordable transportation assistance for other TANF recipients traveling to job training, interviews, and work sites in the Baltimore region.

AdVANtage II entrepreneurs participate in an intensive one-year training program that covers basic business skills, assistance with incorporation as passenger carriers, vehicle lease agreements, work ethic orientation, and map reading. The first round of the program in 1999 successfully trained several entrepreneurs who started their own companies. They operated about 240 trips daily, with service Monday through Friday 4:00 a.m. to 12:30 a.m. and on weekends from 10:30 a.m. to 9:00 p.m. Several of those van enterprises from both AdVANtage and AdVANtage II are still in operation. After a period of inactivity, AdVANtage II is being revived to train more entrepreneurs and assist them in expanding their customer

base, and to produce an instruction manual for anyone wishing to replicate the AdVANtage II program.

Carpool/Vanpool Matching Services

Carpool and vanpool matching programs in the region, such as RideShare, assist commuters who want to share a ride using personal vehicles, in order to reduce commuting costs. Individuals register for the program, then receive a list of other workers with similar commuting habits, who the individuals would then contact to coordinate a trip. Additional assistance may be provided through the program, such as information on park-and-ride lots and transit services.

Carpool and vanpool matching services are available to residents in every regional jurisdiction, except Baltimore City where the MTA offers minimal assistance. The absence of a program in Baltimore City puts its residents at a disadvantage for accessing jobs. However, individually organized carpools and vanpools are generally not utilized by low wage earners since their commute pattern and work hours often exclude them from possible matches with drivers.

Wheels for Work

Anne Arundel Department of Social Services operates the Wheels for Work program to match low cost used vehicles with low-income parents whose only barrier to accepting a job, or keeping a job, was the lack of reliable, affordable transportation. This program helps welfare recipients purchase surplus County government vehicles that otherwise would have been auctioned off for a very low return. Due to great demand, there are not enough vehicles for those in need. Harford County Department of Social Services ran a similar program in FY 2000.

Vehicles for Change

Vehicles for Change (VFC) is a nonprofit organization that rehabilitates donated cars and sells them to needy workers who reside in Carroll County and Baltimore City. This program may expand to include Anne Arundel County residents. Applicants are identified by social services organizations and undergo a selection process to obtain a loan for the low priced vehicle. VFC sells the cars for a fraction of their value once repaired, and cost between \$600 and \$900. As with the Wheels to Work program, there are not enough vehicles to meet the great demand.

Cars for Careers

Cars for Careers is another nonprofit organization that refurbishes and sells donated cars at a reduced cost to Howard County residents, generally low-income parents, who need a car to access work experience programs and employment opportunities. Recipients pay \$450 to \$850, depending on the recipient's ability to pay. The program began with a block grant from HUD, and recently obtained funding from The Columbia Foundation for continued expansion.

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Section D.

TRANSPORTATION GAPS BETWEEN WELFARE RECIPIENTS AND EMPLOYMENT IN THE BALTIMORE REGION

Currently, there are gaps in transportation service between (A) the geographic distributions of welfare/TANF recipients and low-income households, and (B) employment opportunities not currently served by (C) public transportation services in the Baltimore region. This section explains the origins of these gaps, examines transportation challenges faced by welfare recipients, identifies several issues related to these challenges, and provides quantitative analysis of the transportation gaps. Tools and resources used to define transportation needs and service gaps include statistical data analysis, computerized mapping, focus groups, and participation in regional welfare-related committees already in place.

Transportation Challenges Due to Work Requirements

Accessing jobs and reverse commuting is a transportation problem in the Baltimore region because most welfare recipients and low-income people live in Baltimore City and are without cars, while the majority of jobs they are likely to obtain are in inconvenient locations, particularly in suburban employment centers inaccessible by public transportation. Reverse commuting refers to the non-traditional daily travel pattern from a residence located in the urban core to a job located in a suburban area. Since public transportation cannot service every residence and every job site, getting to jobs and job-related activities is difficult for many welfare recipients transitioning to the workforce.

Major shifts in the location of population and jobs have affected the region's economy. Researchers at the Jacob France Center report, "the decline in the City's population has dramatically altered the regional economy and changed patterns of employment opportunities. The movement out of the City by its middle class residents was followed by the out-migration of retail and personal services businesses who were dependent on serving these middle class customers. This out-migration further decreased employment opportunities and economic vitality in the City, causing more out-migration of population, and thus creating a mutually reinforcing downward spiral in the City's economy."¹⁷ This situation has caused a spatial mismatch between welfare recipient households and employment centers, thereby creating new demands for public transportation services.

The transportation disadvantaged are identified by the Transit Cooperative Research Program¹⁸ as people whose range of travel alternatives are limited, and include the young, elderly, poor, disabled, working mothers, and individuals without access to automobiles. Women are particularly at a disadvantage because the majority of full-time working mothers have non-traditional work hours, and they are especially likely to incorporate multiple stops into their work trips, a practice known as trip chaining. This reduces their ability to join carpools or find appropriately scheduled transit options. Furthermore, the majority of adults living in households without automobiles are women.

Car Ownership

Most welfare recipients do not own cars. The U.S. Department of Health and Human Services estimated that only one percent of families in Maryland receiving TANF benefits own an automobile and that the average value of vehicles owned by TANF families in the U.S. is reported to be \$895.¹⁹ In order to ease restrictions that deter TANF-eligible recipients from owning cars, most states have either increased the excluded value or discounted entirely the value of a motor vehicle in determining TANF eligibility. Such actions also promote access to job preparation and work. Maryland raised its vehicle asset limit to \$2,000, making it easier for families to own a car that is reliable and can get them to work.²⁰

Without cars, many welfare recipients face transportation challenges in finding and keeping jobs. They must manage multiple bus trips, incompatible schedules, long walks to suburban job sites, concerns about safety, reliance on friends and relatives, and expensive taxi rides. Using fixed route transit, commutes from Baltimore's inner city to jobs in the suburbs can take an hour and a half to two hours from door-to-door. Public transportation routes typically move suburban workers into downtown employment centers and are deficient in the reverse commute. Sprawling suburban job centers are not adequately serviced by transit which depends on concentrations of employment and population to provide sufficient volumes of ridership. As a result, many jobs are inaccessible to individuals without cars.

Transit Accessibility for Welfare Recipients

In the Baltimore region, most welfare recipients and low-income people live in dense urban areas served by transit. About 92 percent of TANF cases are within a quarter-mile or five-minute walk of a bus route or train station, and 88 percent are in Baltimore City, while only 4 percent of those TANF households within walk access to transit are outside of that jurisdiction. Looking at each jurisdiction individually, within Baltimore City, 99 percent of welfare households have walk access to transit, while only 76 percent in Howard County have walk access to transit, 70 percent in Baltimore County have walk access to transit, 61 percent in Harford County have walk access to transit, 49 percent in Anne Arundel County have walk access to transit, and 23 percent in Carroll County have walk access to transit. The proportions of TANF cases within walk access to transit, both region-wide and by jurisdiction in the Baltimore region, are presented in Table D-1.²¹

**TABLE D-1
TANF Cases within Walk Access to Transit
in the Baltimore Region**

Jurisdiction	% Region-wide	% by Jurisdiction
Anne Arundel County	2.3%	49.1%
Baltimore City	79.6%	99.0%
Baltimore County	9.2%	70.3%
Carroll County	0.1%	23.0%
Harford County	0.9%	60.6%
Howard County	0.4%	75.9%
Baltimore Region	92.0%	--

Sources: TANF Cases, Maryland Dept. of Human Resources, January 2000;
Transit, Baltimore Metropolitan Council, 2000;
GIS Analysis by Baltimore Metropolitan Council, 2001.

This analysis encompasses all transit services regardless of the day of week or time of day. Typically, the most services are offered weekdays from 6:00 a.m. to 10 p.m. Weekend and overnight service is less accessible. There is no transit service available to TANF recipients in Carroll and Harford Counties on the weekend. Overnight hours are considered to be midnight to 5:00 a.m. On Saturdays, transit service is walk-accessible for about 90 percent of TANF households in the Baltimore region, and 79 percent of those cases are in Baltimore City. On Sundays, about 88 percent of TANF households in the Baltimore region have walk access to transit. There is no overnight transit service available to TANF recipients in Anne Arundel, Carroll, Harford, and Howard Counties. Only 63 percent of TANF households in the Baltimore region have access to transit service overnight, and only in Baltimore City and Baltimore County.

This information is important because living near transit service is only useful to residents if it takes them where they need to go, and when they need to be there. Not many transit routes support a reverse commute to take city residents to the suburbs for work. In addition, transit is limited within and to suburban areas, especially on weekends and overnight. There is very little reverse commuting services to the suburbs, especially suburbs farther from Baltimore City.

Most of MTA's eleven commuter bus schedules are based on the traditional commuting pattern, traveling from suburbs to downtown Baltimore in the morning peak period, and from downtown returning to suburbs in the evening peak period. Less than half the bus routes travel from downtown to suburbs with more than one run. Two routes have mid-day service, from downtown to Columbia and Harford County.

MTA's local buses primarily serve areas within I-695, the Baltimore Beltway, connecting inner ring suburbs to downtown, and neighborhoods within Baltimore City. Only three local bus routes enter Anne Arundel County terminating at Arundel Mills Mall, Marley Station Mall, and Riviera Beach. Only the Arundel Mills Mall route offers weekend service. No MTA local bus routes enter Carroll County, Harford County, Howard County, or Annapolis,

and no MTA commuter bus routes enter Carroll County. Harford County and Howard County run locally operated systems to connect with MTA services outside of their jurisdictions.

General statements can be made about the limitations of the transit system in the Baltimore region. But, in order to pinpoint where transportation services are needed for TANF recipients to access jobs, the analysis must become more specific. Destinations are no longer generalized as the suburbs, but instead they are employment centers where individuals with limited education or lack of work experience are likely to find jobs. These destinations must be considered in relation to the origin of the trip, and how the trip will be executed. This is a complex task, requiring a powerful tool for understanding the dimensions of these spatial problems.

Method Used for Spatial Analysis

In the attempt to identify spatial mismatches and gaps in transportation, the BMC created a geographic information system (GIS)²² of welfare cases and destinations they need to access. Locations of employment centers, fixed route transit services, occupational training programs, and child care centers in the region were mapped to determine how many welfare recipients had convenient access to these facilities, based on the distance between their homes, a bus route or train station, and potential employers. Access to employment-related activities, occupational training programs, and child care centers was also determined by this method.

The source of each map layer was described in previous sections. Welfare recipient household locations are represented by generalized point data. Employment centers are represented by area data, that being regional planning districts (RPDs) with over 10,000 total jobs, and over 1,000 low wage jobs. Concentrations of potential low wage jobs are shown in three classifications ranging from 1,000 to 10,000 jobs; the highest job density is the darkest shade of gray. The locations of occupational training programs, and child care centers are represented by specific point data. Fixed route transit services are represented by line data for all bus and rail lines, and point data for the commuter bus stops and rail stations which have limited access.

In addition, buffer analysis²³ was made possible by creating a quarter-mile band around certain features to determine easy walk access to these features. Each buffer is a separate map layer. One walk access buffer was drawn around the local bus lines, commuter bus stops, and rail stations. Another walk access buffer was drawn around child care centers. When a buffer layer is combined with other layers, additional information can be obtained. For instance, when TANF cases and the walk access buffer to child care centers are overlaid, the number of TANF cases within walking distance to child care centers can be determined.

It is important to note that when the locations of TANF cases, occupational training programs, and child care center data were geocoded²⁴ using mapping software, not all the addresses were recognized as valid. The geocoding match rate for TANF cases was about 96 percent, meaning that 19,247 of the original 20,151 cases appear on the map. The

match rate for occupational training programs was about 94 percent, meaning that 312 of the original 331 appear on the map. And the match rate for child care centers was about 99 percent, meaning that 577 of the original 581 appear on the map.

Accessibility to Employment and Related Activities

Several overlay maps were created to analyze welfare recipient accessibility to employment and related activities. These maps include low wage jobs and transit accessibility, TANF cases and low wage jobs within walk access to transit, TANF cases and occupational training programs within walk access to transit, and TANF cases within walk access to child care centers. Overlay analysis visually displays where the gaps exist, while buffer analysis quantifies the gaps. All of these maps will be useful in identifying projects to fill the gaps in service, to be completed for Section E.

The first set of maps in this section provides a visual analysis of accessibility to employment centers. Map D-1, Low Wage Jobs and Transit Accessibility, reveals that all employment centers have some transit service. If specific employer locations were available (as mentioned in Section B), a walk access to transit buffer overlay could produce data to determine which employers, and how many of them, are transit accessible. Map D-2, Low Wage Jobs and Transit Accessibility on Saturday, and Map D-3, Low Wage Jobs and Transit Accessibility on Sunday, indicate there is no weekend service to and within Aberdeen-Havre de Grace, Bel Air-Fallston, Edgewood-Joppa, and Westminster. Map D-4, Low Wage Jobs and Transit Accessibility Overnight, indicates there is no overnight service to and within Aberdeen-Havre de Grace, Bel Air-Fallston, Edgewood-Joppa, Columbia, Ellicott City, Laurel (U.S. 1 Corridor), Friendship, Perry Hall-White Marsh, Reisterstown-Owings Mills, and Westminster.

In the next set of maps, the transit layer is replaced with a walk access buffer to transit, and overlaid with TANF cases and low wage jobs. From these maps, it can be determined how many TANF recipient households are within walk access to transit, as defined above, and how much of the employment center has walk access to transit according to the area covered by the buffer. Map D-5, Map D-6, Map D-7, and Map D-8 display TANF Cases and Low Wage Jobs within Walk Access to Transit, in general, on Saturday, Sunday, and overnight.

As shown in the maps, Annapolis is completely covered by the walk access buffer except for overnight, indicating that there is adequate transit service within that employment center every day, but not during overnight hours. Columbia has a good amount of coverage, except on Sunday and overnight. Other employment centers have only some transit service Monday through Friday daytime hours, but little or none on weekends or overnight.

Saturday transit service is not available in four of the 19 employment centers: Aberdeen-Havre de Grace, Bel Air-Fallston, Edgewood-Joppa, and Westminster. Sunday transit service is not available in those four, plus Ellicott City, Laurel, Perry Hall-White Marsh. Only six of the 19 employment centers have overnight transit service: Catonsville, Hunt Valley, Middle River, Towson, Metro Center, and Security. Overnight transit service is not available

[Map D-1](#) and all maps referenced in this document are available on the BMC webpage, <http://www.baltometro.org/JARCPlan.html>.

[Map D-2](#) and all maps referenced in this document are available on the BMC webpage, <http://www.baltometro.org/JARCPlan.html>.

[Map D-3](#) and all maps referenced in this document are available on the BMC webpage, <http://www.baltometro.org/JARCPlan.html>.

[Map D-4](#) and all maps referenced in this document are available on the BMC webpage, <http://www.baltometro.org/JARCPlan.html>.

[Map D-5](#) and all maps referenced in this document are available on the BMC webpage, <http://www.baltometro.org/JARCPlan.html>.

[Map D-6](#) and all maps referenced in this document are available on the BMC webpage, <http://www.baltometro.org/JARCPlan.html>.

[Map D-7](#) and all maps referenced in this document are available on the BMC webpage, <http://www.baltometro.org/JARCPlan.html>.

[Map D-8](#) and all maps referenced in this document are available on the BMC webpage, <http://www.baltometro.org/JARCPlan.html>.

in 13 of the 19 employment centers located in Anne Arundel, Carroll, Harford, and Howard Counties.

As noted in Section B, analysis of transit access to low wage jobs would be more accurate, and quantifiable, using specific employer addresses instead of regional employment districts. However, up-to-date employer address data were not available for this analysis.

Map D-9 shows how well the employment centers are served by Job Access and Reverse Commute funded transportation routes. Fixed route bus and demand response shuttles are indicated on the map. Some buses run on weekends, but none overnight. Four of the routes originate in Baltimore City and serve the Eastpoint-Dundalk, Perry Hall-White Marsh, Aberdeen-Havre de Grace, Bel Air-Fallston, Edgewood-Joppa, and Columbia employment centers. One route serves Annapolis. Another route serves both Friendship (BWI) and Columbia, originating at the BWI Light Rail station.

The only Job Access and Reverse Commute funded route not serving designated employment centers is Connect-A-Ride Routes J, K, and L. However, Routes J and K serve Arundel Mills Mall, which is a new destination for low skilled job seekers, as mentioned in Section B; those jobs were not included in the employment data collected, and so not reflected on this map. The employment centers not served by Job Access and Reverse Commute funded routes are Hunt Valley, Towson, Ellicott City, Laurel (U.S. 1 Corridor), Reisterstown-Owings Mills, Security, Westminster, Middle River, and Metro Center.

As identified in Section B, the employment-related activities associated most with transportation barriers for welfare recipients are occupational training and child care. Buffer analysis for Map D-10, TANF Cases & Occupational Training Programs within Walk Access to Transit, indicates that 78 percent of all programs are transit-accessible to 92 percent of TANF recipient households. Only 8 percent of all training programs are within easy walking distance of all TANF households. Buffer analysis for Map D-11, TANF Cases within Walk Access to Child Care Centers, indicates that only about 49 percent of all child care centers are within easy walking distance of all TANF households.

Stakeholder-Identified Issues and Needs

Several welfare-related organizations were involved in the development of this plan. Representatives of transit providers, human service providers, employment development organizations, and employers were invited to participate in work groups coordinated by the Baltimore Metropolitan Council (BMC), on behalf of the Baltimore Regional Transportation Board. In addition, BMC staff members attended committee meetings in the region, including the Workforce Development Coalition, Job Opportunities Task Force, Citizens Planning and Housing Coalition's Transportation Committee, and the Maryland Coordinating Committee for Human Services Transportation. Stakeholders have been an important resource during the development of this plan, and will continue to be so throughout its implementation and periodic review.

[Map D-9](#) and all maps referenced in this document are available on the BMC webpage, <http://www.baltometro.org/JARCPlan.html>.

[Map D-10](#) and all maps referenced in this document are available on the BMC webpage, <http://www.baltometro.org/JARCPlan.html>.

[Map D-11](#) and all maps referenced in this document are available on the BMC webpage, <http://www.baltometro.org/JARCPlan.html>.

Issues

Over the course of several years, BMC has worked to identify stakeholder issues to determine priorities for transportation needs and service gaps. The Transit Cooperative Research Program²⁵ has identified several typical issues relating to job access challenges, all of which are similar to those identified by stakeholders in the Baltimore region. These issues include:

1. Mismatch between residential locations and employment centers;
2. Work schedules that require late night or weekend commuting;
3. Difficulties of balancing multiple destinations for child care and employment, relating to trip chaining needs;
4. Dependence upon the assistance of friends or relatives;
5. Long travel times because of multiple transfers;
6. Concerns about safety walking to or waiting at train stations or bus stops;
7. Difficulties obtaining or understanding information about transportation services;
8. Complexities of coordinating multiple operators, schedules, and fare levels;
9. Affordability of transit fares and taxi rides; and
10. High cost of acquiring, registering, insuring, and maintaining an automobile.

Many of these issues directly relate to temporal mismatch, which is an important issue. However, additional information is needed about transit, jobs, and services in order for specific time-related mismatches in the Baltimore region to be identified. Temporal information includes frequency and connectivity of bus service, hours of operation for transit and child care centers, and work shift times.

Even if employers are transit-accessible, transit schedules may not match night and weekend work shifts, buses may run infrequently, and trips may require one or more transfers. Incorporating temporal data into the GIS would produce more useful results, and will be considered for future technical analysis. Issues relating to spatial mismatch have been evaluated by stakeholders, resulting in the identification of priority areas for transportation services. Results of this evaluation are as follows.

Priority Service Areas

Stakeholders were surveyed to determine which employment centers in the Baltimore region are in greatest need of transit service. Priority service areas and employment centers were identified as follows.

- Northeast Region – Harford County (I-95/U.S.40 Corridor), including:
 - Aberdeen-Havre de Grace
 - Edgewood-Joppa
- Southwest Region – Howard County (I-95/U.S.1/U.S.40 Corridor), including:
 - Ellicott City
 - Laurel (U.S. 1 Corridor)
- Columbia
- Friendship (BWI Area)
- Westminster

Section E.

PROJECTS TO ADDRESS THE GAPS IN TRANSPORTATION SERVICES IN THE BALTIMORE REGION

This section identifies improvements and coordination efforts that would help to fill the gaps in transportation services and provide long-term mobility for low-income job seekers, who are represented by TANF cases for the purposes of this analysis. Recommendations listed in this section include priorities for transit service improvements, as well as transportation projects that require coordination among partners, and additional strategies relating to transportation. Information on funding opportunities is also provided. This section is intended to help guide the development of future project proposals. When projects are submitted to BRTB for funding consideration, they will be evaluated primarily based on recommendations contained here with some flexibility for changing conditions.

Priorities for Service Location and Type

Analysis of the mapping indicates that transit access for the majority of TANF households is high, such that 92 percent of TANF households are within walking distance of transit. In the Baltimore region, most welfare recipients and low-income people live in dense urban areas served by transit. Therefore, bridging the gaps in transportation will primarily focus on employment centers. Transit access in employment centers varies greatly. The 19 employment centers were ranked from highest priority to lowest, based on transit need first, and potential number of low wage jobs second.

The transit access score is a total of area covered (1-5 points), transit connections outside of the employment center (0-1 point), hours and frequency of service (0-2 points), Light Rail or Subway service (0-1 point), and Saturday, Sunday or overnight service (1 point each, maximum 3 points). The employment center with the best transit access score totals 12 points, whereas the one with the worst transit access score totals 1 point. The employment center with the worst transit access is most in need of service. The full ranking of employment centers based on transit need and potential low wage jobs is presented in Table E-1.

**TABLE E-1
Employment Centers and Transit Need
in the Baltimore Region**

Highest Priority for Service Ranking	Employment Center	Potential Low Wage Jobs*	Transit Access Score (12 is best)
1	Westminster	4,162	1
2	Bel Air - Fallston	4,735	4
3	Ellicott City	4,348	4
4	Edgewood - Joppa	3,724	4
5	Aberdeen - Havre de Grace	2,669	4
6	Perry Hall - White Marsh	1,844	5
7	Laurel (U.S. 1 Corridor)	2,010	6
8	Columbia	8,730	8
9	Annapolis	4,013	8
10	Owings Mills	3,644	8
11	Catonsville	2,715	8
12	Towson	6,893	9
13	Hunt Valley	5,911	9
14	Glen Burnie	4,880	9
15	Security (Woodlawn)	3,431	9
16	East Point - Dundalk	1,669	9
17	Middle River	1,481	9
18	Friendship (BWI)	1,172	9
19	Metro Center	10,045	12

Sources: Baltimore Metropolitan Council, 1999; Transit Access Analysis by BMC, 2001.

* Refer to Section B for explanation of job data.

According to this ranking, a project proposed to serve Westminster would be weighted more heavily than a project proposed to serve Owings Mills or Security. Metro Center is ranked last because it has the best transit access in the region, which is true for Baltimore City in general. Since transit access is already good in Baltimore City, and the majority of TANF cases are in Baltimore City, service improvements should be focused on reverse commute from there to suburban areas. The five priorities for types of service from highest to lowest are as follows.

1. Reverse commute service from Baltimore City to suburban employment centers, with Westminster, Bel Air-Fallston, Ellicott City, Edgewood-Joppa, Aberdeen-Havre de Grace, and Perry Hall-White Marsh being the highest priority (see Table E-1 for full ranking).
2. Smaller urban areas, like Annapolis, to suburban areas where the highest concentration of TANF cases and jobs exist.
3. Suburb-to-suburb connections, in areas where the highest concentration of TANF cases and jobs exist.

4. Circulators within employment centers where the highest concentration of TANF cases and jobs exist.
5. Additional major job sites, such as Arundel Mills Mall, identified as having a concentration of low wage jobs will also be considered for transit services.

Improving Overall Quality of Services

The following recommendations are intended to enhance the overall quality of transit services for access to jobs in the Baltimore region. They are not intended to conflict with the priorities for service location and type, as listed above, but rather to prioritize enhancements that would directly address issues related to access to jobs. These service improvements could be funded through the Job Access and Reverse Commute (JARC) grant program because they are directed at implementing new or expanded transportation service, and improving customer service and operating efficiency.

1. Maintain and expand successful JARC grant-funded transit service where need is demonstrated.

Bus routes will be evaluated for effectiveness and efficiency using standards similar to MTA's Performance Indicators Program for Locally Operated Transit Systems (LOTS), primarily based on ridership and cost of the service.

2. Incorporate successful services funded through JARC with other transit funding sources to guarantee sustainability.
3. Shorten trip time by providing more express service, more frequent service, and more convenient transfer points between MTA services and routes operated by LOTS; the goal for maximum trip time should be one hour to one hour and 15 minutes.
4. Increase weekend, late night, and overnight transit service where need is demonstrated.
5. Create transit centers at major fixed route and demand response service transfer points to improve connectivity, and provide schedules of all systems at all transit centers and other transfer points.
6. Encourage employer-sponsored transportation services, including shuttles from the work site to existing transit stops that may include en-route access to employment-related activities such as child care.

Transportation Coordination Projects

The projects recommended in this section directly affect transportation services, but do not provide the actual transportation services. Implementation of these projects requires coordination efforts and joint investments, and may not entirely be eligible for funding through the JARC grant program.

According to FTA, grants awarded under JARC should be directed at implementing transportation service, improving customer service and operating efficiency, and promoting the use of transit, transit vouchers and pass programs, and the development of employer-provided transportation. JARC grants should not be used for planning or coordinating activities. However, other funding sources such as Welfare-to-Work grants may be used for transportation planning activities consistent with the allowable uses of those resources. Recommended transportation coordination projects for improving access to jobs are as follows.

- Build upon existing partnerships among transit providers, social service providers, and workforce development agencies that formed as a result of the JARC grant program, both in planning for services and combining funding.
- Create new Transportation Management Associations (TMAs) with coordinated efforts to assist low-income commuters, including:
 - Provide a one-stop information clearinghouse for transportation services, including a toll free phone line;
 - Work with employers to promote and initiate employer-based transportation programs such as employee shuttles, carpooling, Guaranteed Ride Home (GRH), telecommuting, and flexible work hours;
 - Adapt traditional rideshare and carpool activities to include people who do not own cars; and
 - Implement the Maryland Commuter Choice program and the federal employee workforce transportation initiative.

Currently, the only TMAs in the region are the BWI Business Partnership, Corridor Transportation Corporation, and the Annapolis Regional Transportation Management Association. The Workforce Transportation and Referral Center located at Sojourner-Douglass College in Baltimore City, funded through a JARC grant, provides information on existing public transit and coordinates services when transportation needs are not served by mass transit.

- Improve safety at transit stops through design and land use enhancements, including:
 - Locate transit stops in mixed-use, higher-trafficked areas;
 - Install bus shelters with lighting, security cameras, and phones; and
 - Increase police patrol of transit stops.

- Improve access to transit stops by providing sidewalks and other pedestrian infrastructure.
- Extend fixed-guideway transit service to employment centers not already served.

MTA's Baltimore Region Rail System Plan currently being developed will identify future corridors for fixed-guideway transit service.

Additional Strategies to Improve Access to Jobs

Strategies relating to child care, health care, land use and housing will affect job access transportation services indirectly. It is important to address these types of issues, although implementing such strategies require coordination efforts that may occur outside the purview of transportation planning. Therefore, these projects would not be eligible for funding through the JARC grant program, but are included in this plan since they would improve overall access to jobs. These additional strategies are listed as follows.

Child Care and Health Care

- Conduct needs assessment for child care and health care and determine where and when additional services are needed.

In 1999, Baltimore City conducted a survey of 100 Temporary Cash Assistance recipients to determine child care usage, and found no pattern in deficient resources. No recipient reported they would use a child care center after 8:00 p.m.

- Reduce multiple trips by providing more convenient child care and health care in low-income neighborhoods, along major public transportation routes, and at work sites.
- Encourage child care and health care centers to provide van service to and from homes or work sites.

Land Use and Housing

- Encourage transit-oriented and mixed-use development to improve car-free mobility.
- Offer affordable housing options close to employment sites.
- Encourage all jurisdictions and more employers to participate in the State of Maryland's Live Near Your Work program.

Currently, only Baltimore City and Westminster participate in Maryland's program by sponsoring a \$1,000 matching grant with both the State and employer totaling a \$3,000 grant to new homebuyers who purchase a house close to the work site.

Working with Employers

Improving access to jobs will only be successful and sustainable if employers are active partners in the effort. Here are some ways to involve them in the process.

- Educate employers about transportation problems, potential solutions, and what they can do to help.
- Encourage employers to locate in densely populated areas, which support transit and offer affordable housing options.
- Encourage employers to implement employer-sponsored transportation services, including shuttles from the work site to existing transit stops that may include en-route access to employment-related activities such as child care.
- Encourage employers to help pay for transportation services utilized by their employees.
- Help employers take advantage of federal and state employer tax credits by providing information and streamlining the process.
- Encourage employers to provide opportunities for upward mobility, and pay for career advancement courses.

Funding Opportunities

There are several grant programs available to fund projects recommended in this section. By combining funds from different federal, state, and local agencies, as well as non-profit organizations and foundations, flexible and affordable transportation improvements can occur. Transportation is a powerful economic development tool that can leverage other investments. A new transit route may cause amenities like bus shelters to appear which, in turn, will attract new riders to sustain the service. Here are some ideas for joint investment opportunities.

- Job Access and Reverse Commute (JARC) grant funding administered by the FTA. This program is authorized for \$525 million over five years beginning in federal fiscal year 1999, and has two major goals: 1) to provide transportation services in urban, suburban, and rural areas to assist welfare recipients and other low-income individuals in accessing employment opportunities, and 2) to increase collaboration among key agencies and organizations, especially regional transportation providers and human service agencies. To encourage coordination between State agencies and local transit providers and human service agencies, the JARC program requires a minimum 50 percent local match.

Projects eligible for JARC funding include but are not limited to:

- Adding late night and weekend service;
- Providing a Guaranteed Ride Home service;

- Extending fixed route mass transit service;
- Providing demand responsive van service;
- Sponsoring ridesharing and carpooling activities;
- Encouraging bicycling;
- Establish regional mobility managers or transportation brokerage activities;
- Implement Intelligent Transportation Systems, including customer trip information technologies and vehicle position monitoring;
- Promoting the use of transit vouchers and transit pass programs; and
- Promoting the development of employer-provided transportation.

Maryland was one of the leaders nationally in obtaining these federal funds to develop a JARC program for the State. During the first three years of the JARC program, Maryland has received over \$7.5 million in federal funds. The MTA administers Maryland's JARC program. In conjunction with the Governor's Coordinating Committee for Human Services Transportation, the MTA works with local jurisdictions to develop transportation services to meet local community needs and link workers with job opportunities through an annual grant application process. In the Baltimore region, the BRTB serves as the regional forum to review grant applications and make recommendations to MTA for projects to be included in the statewide application to FTA.

Since these funds require a minimum 50 percent match, and funding from other federal programs may be used, the MTA and the Maryland Department of Human Resources (DHR) work closely on the JARC program. DHR has provided significant funding both directly from the State level and through local Departments of Social Services. To ensure continuation of job access transportation services beyond the federal authorization, legislation was approved by the 2001 Maryland General Assembly to establish a JARC program within the Maryland Department of Transportation budget.

- Temporary Assistance for Needy Families (TANF), administered by the U.S. Department of Health and Human Services as TANF block grants to States, can be used to provide support services including child care and transportation so long as the expenditure reasonably accomplishes a purpose of the TANF program, such as promoting job preparation and work. TANF funds can be used as part of the required match for JARC.
- Welfare to Work (WtW) grant funding administered by the U.S. Department of Labor through state employment agencies and local workforce investment boards for job access transportation services, including planning activities and private vehicle-related expenses consistent with the allowable uses of those resources. WtW funds can be used as part of the required match for JARC.
- Urban Transit Formula Grants, Rural Transit Formula Grants, Major Transit Capital Grants, Capital Grants for Transportation for Elderly and People with Disabilities administered through the Federal Transit Administration (FTA) to support transit services.
- Congestion Mitigation and Air Quality (CMAQ) flexible funding program administered by the Federal Highway Administration which funds projects and programs to reduce

harmful vehicle emissions and improve traffic conditions and may fund transit and rideshare projects.

- Community Services Block Grants and Social Service Block Grants administered through the U.S. Department of Health and Human Services and their state and local counterparts to support transit capital and operating investments.
- HOPE VI Grants and the Community Development Block Grant administered through the U.S. Department of Housing and Urban Development through Public Housing Authorities, cities and/or economic development agencies to support transit capital and operating investments.
- Smart Growth Transit Program funding administered by MTA through local jurisdictions to provide transit improvements in the State of Maryland’s “Smart Growth or Priority Funding Areas” and includes:
 - Transit Station Development Incentive Program;
 - Neighborhood Conservation;
 - Access 2000 Pedestrian Improvements Program; and
 - Transit Shelter/Station Enhancement Program.
- Retrofit Sidewalk Program funding administered by the Maryland Department of Transportation’s State Highway Administration, to provide funding for the construction of new and the reconstruction of existing sidewalks and pathways.

Implementing the Plan

As projects develop, specific goals and objectives will be identified, and cost will be determined with the assistance of MTA. Cost information will include operating and capital costs for equipment, and facilities and maintenance related to providing services. An explanation of how the project will maximize use of existing transportation service providers and what mechanisms will be used to integrate or coordinate the project services with the existing transportation network will be provided. Employer-provided or employer-assisted transportation service strategies incorporated in the project will be identified. Projects will be prioritized for funding and implementation.

Any projects proposed should be based on the recommendations contained in this section of the plan, designed to serve high-priority employment centers and clusters of TANF households. Many transit projects that would improve access to jobs have been identified in MTA’s Comprehensive Transit Plan and local Transportation Development Plans. They include expanding current service, new local and express bus routes, new shuttle circulators, transit centers, and demand-response service. Specifics for service expansions should be developed, and the type of service and schedule should be determined by demonstrated needs.

Future Analysis

The Plan will be reviewed and updated periodically, as new information becomes available. BMC's geographic information system (GIS) will be enhanced with more specific employer data, including their address, SIC code, and number of employees. New hires and job growth data would also improve the system. Time-related data such as frequency and hours of bus service, operational hours of child care, and work shift times would be useful. With additional information, it could be determined where express, weekend and overnight transit service is needed, and trip chaining patterns could be identified. Incorporating new data into the GIS would produce more useful results, and will be considered for future technical analysis and planning activities.

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Notes

1. Welfare and Child Support Research and Training Group, School of Social Work, University of Maryland-Baltimore, *Life After Welfare: Fifth Report*, presented to Family Investment Administration, Maryland Department of Human Resources, October 2000.
2. *National Emergency TANF Datafile October 1998 to September 1999*, U.S. Administration for Children and Families, Department of Health and Human Services Office of Planning, Research and Evaluation, April 14, 2000.
3. Compiled data from U.S. Census Bureau, Maryland Office of Planning, and Baltimore Metropolitan Council, *Regional Economic Indicators 2000 Edition: The Baltimore Metropolitan Area Compared to Maryland and the United States*, Baltimore Metropolitan Council, December 2000.
4. Regional Planning District (RPD) is a unit of geography smaller than a county but larger than a census tract. An RPD is a collection of census tracts, with boundaries approximate to election districts. There are 94 RPDs in the Baltimore region. This level of geography is most useful for regional statistical analysis. The smaller unit Transportation Analysis Zone (TAZ) was considered, but RPD was used instead because the larger scale geography is more efficient for identifying major activity centers and clusters of jobs.
5. The Round 5-B Forecast is a set of agreed upon socio-economic projections for the Baltimore region to the year 2020 as developed by the Cooperative Forecasting Group consisting of Baltimore Metropolitan Council (BMC), state and local planning staffs.
6. New construction is tracked by building permits submitted by the developer to the local jurisdictions. In the Baltimore region, jurisdictions submit a paper copy of each building permit, which BMC enters into the Building Permit Data System. This data is compiled for each jurisdiction to produce quarterly and annual building activity reports.
7. Compiled data from Total Employment by Place of Work, Full- and Part-time Jobs, U.S. Bureau of Economic Analysis, *Regional Economic Indicators 2000 Edition: The Baltimore Metropolitan Area Compared to Maryland and the United States*, Baltimore Metropolitan Council, January 2000.
8. The Regional Development Advisory Committee, formed in 1999, consisted of leaders in the real estate and development community, assembled to address land use issues affecting long-range transportation planning for the Baltimore region. RDAC's draft report was done in October 2000.
9. Standard Industrial Classification (SIC) codes are administered by the Statistical Policy Division of the U.S. Office of Management and Budget. The system was established to classify all industries in the U.S. economy.

10. U.S. Department of Commerce Bureau of Economic Analysis, *Occupational Employment Statistics (OES) of Industry Staffing Patterns Estimates of Employment and Wages*, December 1999.
11. Maryland Department of Planning, Planning Data Services, September 1999.
12. "Title 11-401, Labor and Employment Article, Annotated Code of Maryland," *Maryland Apprenticeship and Training Law and Regulations*, State of Maryland Department of Labor, Licensing, and Regulation, Division of Labor and Industry, 2000, p.1.
13. Information about apprenticeship and training programs in the Baltimore region was provided by the State of Maryland Department of Labor, Licensing and Regulation, Division of Labor and Industry, 2000.
14. Information about private career schools in the Baltimore region was provided by the Maryland Higher Education Commission, 2000.
15. Maryland Committee for Children, Inc. (MCC) is an advocate and catalyst for the development of a strong system of quality child care, early education, and family support. Working with interested parties on local, state, and national levels, MCC is a private, nonprofit organization which was founded in 1945.
16. Information about private passenger carriers in the Baltimore region was provided by the Maryland Public Service Commission, June 2000.
17. University of Baltimore's Jacob France Center, *Access to Jobs in the Baltimore Region*, Citizens Planning and Housing Association, 1999, p. 11.
18. *Transit Cooperative Research Program Report 49: Using Public Transportation to Reduce the Economic, Social, and Human Costs of Personal Immobility*, Transportation Research Board, National Research Council, National Academy Press, Washington D.C., 1999, p. 2-1.
19. U.S. Department of Health and Human Services, Administration for Children and Families, "Table 7:16, TANF Families with Countable Assets by Type of Asset, October 1996-June 1997," *Temporary Assistance for Needy Families (TANF) Program: First Annual Report to Congress*, 1998.
20. U.S. Department of Health and Human Services, Administration for Children and Families, *Temporary Assistance for Needy Families (TANF) Program: Third Annual Report to Congress*, 2000, p. 5.
21. These statistics were generated by BMC using geographic information system analysis. This method of analysis is described in Section D.
22. A geographic information system (GIS) is an organized collection of computer hardware, software, geographic data, and personnel designed to efficiently capture, store, update, manipulate, analyze and display all forms of geographically referenced information.

23. A buffer is a zone of specified distance around selected features, and displayed as a polygonal area. It is useful for proximity analysis.
24. A geocode is a location in geographic space converted into computer readable form by making a digital record of the point's coordinates, as derived from an address.
25. *Transit Cooperative Research Program Report 64: Guidebook for Developing Welfare-to-Work Transportation Services*, Transportation Research Board, National Research Council, National Academy Press, Washington D.C., 1999, p. 5-1.

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References

Demographic and Socio-economic Outlook, Maryland Department of Planning, Planning Data Services, September 1999.

KFH Group, *Technical Memorandum #3: Service and Organizational Alternatives*, prepared for City of Annapolis and Anne Arundel County, May 9, 2001.

KFH Group, *Synthesis of Coordinated Welfare-to-Work Transportation Initiatives in Maryland*, prepared for Maryland Mass Transit Administration, August 1998.

KFH Group, *Maryland Job Access and Reverse Commute Program (Draft)*, prepared for Maryland Mass Transit Administration, January 2000.

Maryland Comprehensive Transit Plan, Volume 3: Central Maryland (Draft), Maryland Mass Transit Administration, Maryland Department of Transportation, Baltimore, MD, 2000.

National Emergency TANF Datafile October 1998 to September 1999, U.S. Administration for Children and Families, Department of Health and Human Services Office of Planning, Research and Evaluation, April 14, 2000.

Regional Economic Indicators 2000 Edition: The Baltimore Metropolitan Area Compared to Maryland and the United States, Baltimore Metropolitan Council, December 2000.

Regional Development Advisory Committee, *Draft Report: A New Framework for Regional Development*, Baltimore Metropolitan Council, October 2000.

"Title 11-401, Labor and Employment Article, Annotated Code of Maryland," *Maryland Apprenticeship and Training Law and Regulations*, State of Maryland Department of Labor, Licensing, and Regulation, Division of Labor and Industry, 2000.

Transit Cooperative Research Program Report 49: Using Public Transportation to Reduce the Economic, Social, and Human Costs of Personal Immobility, Transportation Research Board, National Research Council, National Academy Press, Washington D.C., 1999.

Transit Cooperative Research Program Report 60: Using Geographic Information Systems for Welfare to Work Transportation Planning and Service Delivery: A Handbook, Transportation Research Board, National Research Council, National Academy Press, Washington D.C., 2000.

Transit Cooperative Research Program Report 64: Guidebook for Developing Welfare-to-Work Transportation Services, Transportation Research Board, National Research Council, National Academy Press, Washington D.C., 1999.

U.S. Department of Commerce Bureau of Economic Analysis, *Occupational Employment Statistics (OES) of Industry Staffing Patterns Estimates of Employment and Wages*, December 1999.

U.S. Department of Health and Human Services, Administration for Children and Families, "Table 7:16, TANF Families with Countable Assets by Type of Asset, October 1996-June 1997," *Temporary Assistance for Needy Families (TANF) Program: First Annual Report to Congress*, 1998.

U.S. Department of Health and Human Services, Administration for Children and Families, *Temporary Assistance for Needy Families (TANF) Program: Third Annual Report to Congress*, 2000.

University of Baltimore's Jacob France Center, *Access to Jobs in the Baltimore Region*, Citizens Planning and Housing Association, 1999.

Welfare and Child Support Research and Training Group, School of Social Work, University of Maryland-Baltimore, *Life After Welfare: Fifth Report*, presented to Family Investment Administration, Maryland Department of Human Resources, October 2000.