

# Transit Coverage and Performance Report

DRAFT

September 2007



Akron Metropolitan Area Transportation Study  
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AKRON METROPOLITAN AREA TRANSPORTATION STUDY  
806 CITICENTER  
146 SOUTH HIGH STREET  
AKRON, OHIO 44308

This report is the product of a study financed (in part) by the U.S. Department of Transportation's Federal Highway Administration and the Ohio Department of Transportation.

The contents of this report reflect the views of the Akron Metropolitan Area Transportation Study which is responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the official views or policy of the U.S. Department of Transportation. This report does not constitute a standard, specification or regulation.

Cooperative transportation planning by the Village, City and County governments of Portage and Summit Counties and the Chippewa Township area of Wayne County; in conjunction with the U.S. Department of Transportation and the Ohio Department of Transportation.

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## INTRODUCTION

AMATS has initiated the process to update its 2030 Regional Transportation Plan. The Regional Transportation Plan recommends transportation improvements in the Akron metropolitan area. This report is one in a series of reports to be used in updating the Regional Transportation Plan. Specifically, this report concentrates on evaluating how well public transportation services benefit the citizens of the Akron metropolitan area. Special attention is given to the following categories of population: low income, elderly, and disabled, all of whom are traditionally considered transportation disadvantaged; as well as minority populations.

Two regional transit authorities, the METRO Regional Transit Authority (METRO) and the Portage Area Regional Transportation Authority (PARTA), operate public transportation services in the Akron metropolitan area. Chippewa Township in Wayne County has no public transportation services.

METRO currently serves the residents of Summit County with a variety of services. The bulk of METRO service consists of 22 fixed line routes radiating from the downtown Akron Main Street transitway. METRO's fixed route service also consists of two neighborhood circulators, which run a fixed circuit within a defined area: one route focusing on the neighborhoods near Chapel Hill Mall and one route focusing on the neighborhoods near Montrose and Summit Mall. METRO's other fixed route service includes two express routes that run direct service to Cleveland; five-grocery routes/ that allow transportation disadvantaged residents the ability to get to a grocery store in their neighborhood and five town center routes, focusing on extended sections of the county.

METRO also provides extensive door-to-door demand-response services to the elderly and disabled, and to the low-income population as part of the Job Access Reverse Commute (JARC) program throughout the county. The demand-response service, known as SCAT, transports people who are unable to utilize the fixed route service, from their particular point of origin to their destination throughout the county.

PARTA, the regional transit authority for Portage County, also operates a variety of transportation services. In contrast to METRO's line routes, PARTA runs three flexible fixed routes. The difference between the two types is that PARTA's flexible fixed routes allow for deviation of the route if necessary, to provide door-to-door service if possible. They also run two express routes, two circulators and three campus routes covering Kent State University. It should be noted that Kent State's Campus Bus Service previously operated PARTA's current campus routes until 2004, when PARTA acquired the service. As is the case with METRO, PARTA

also provides door-to-door demand-response services to the elderly and disabled, and to the low-income population.

The results of this report, which are presented in two sections, will help identify unmet service needs. Section 1 evaluates and discusses the current service provided by METRO and PARTA to the area's residents. The evaluations are based on how well existing services provide coverage to their intended areas. Section 2 focuses on evaluating transit system and route efficiency and effectiveness. Individual routes are reviewed and system statistics are compared with similar transit operators in the U.S. Finally, the conclusion includes a summary and discusses possible improvements as well as the next steps in updating the AMATS 2030 Regional Transportation Plan.

The data analyses presented in this report will be used by METRO and PARTA in their on-going efforts to adjust their service to better meet the needs of the general public and transportation-disadvantaged groups.

## SECTION 1

### ANALYSIS OF FIXED ROUTE COVERAGE

It is important that the regional transportation system provides adequate mobility for all persons. Offering suitable options for area residents and providing basic personal mobility for transportation-disadvantaged groups accomplish this goal.

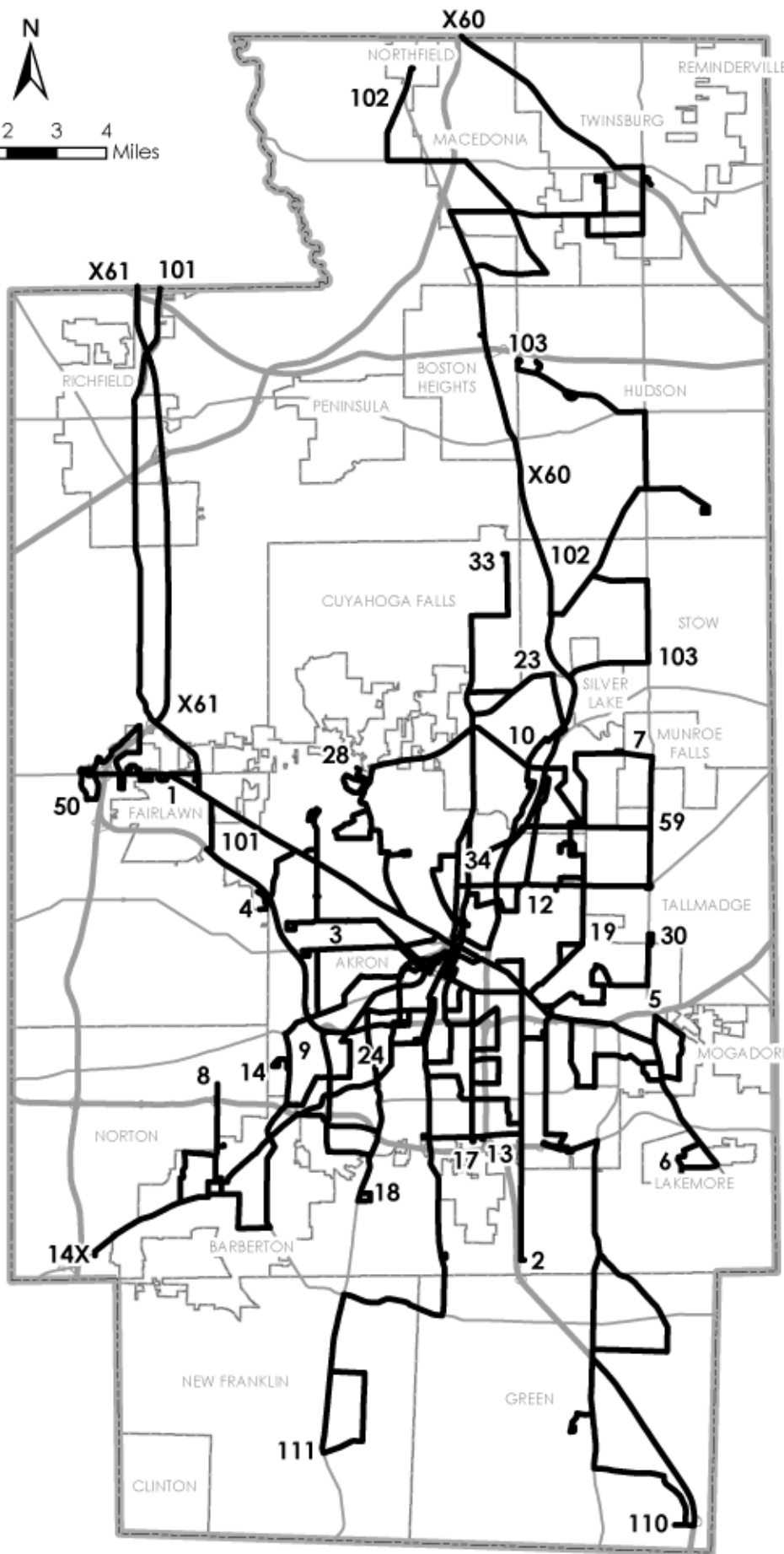
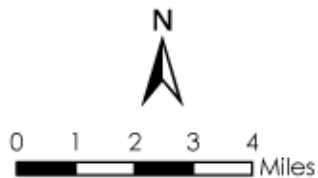
Mobility is an important issue for all people. With this in mind, a suitable coverage area was established in conjunction with the RTA's fixed routes. The suitable coverage area used is ¼ mile walking distance to a fixed route, an industry standard as identified by the Transportation Research Board (TRB). Map 1-1 displays METRO's Fixed Routes, Map 1-2 displays PARTA's Fixed Routes and Map 1-3 displays the fixed routes with the ¼ mile coverage zone.

This section evaluates transit coverage of area residents, coverage of transportation-disadvantaged groups, as well as the usefulness of the area's transit systems. Each analysis identifies the service coverage areas for fixed route transit. Each analysis also identifies the total number of each group to be evaluated and determine the amount of coverage of these groups. This information can then be used to detect gaps in fixed-route service to a particular area or group of people.

No analysis was conducted on the Regional Transit Authorities (RTA's) demand-response service. The dynamic nature of daily door-to-door service does not lend itself to an uncomplicated analysis. Rather an overall picture of the RTA's demand-response service is reviewed in comparison to their peers at other transit authorities.

#### **Population and Employment Coverage**

Two analyses are completed to in order to determine the availability of fixed route transit services in the area. The first analysis evaluates fixed-route coverage of the general population as well as jobs, in the Akron Metropolitan area. The second analysis examines the coverage of transportation-disadvantaged groups as defined by the United States Government Accountability Office (GAO). These groups include the elderly and persons with disabilities, low-income people, or those without access to a personal vehicle.

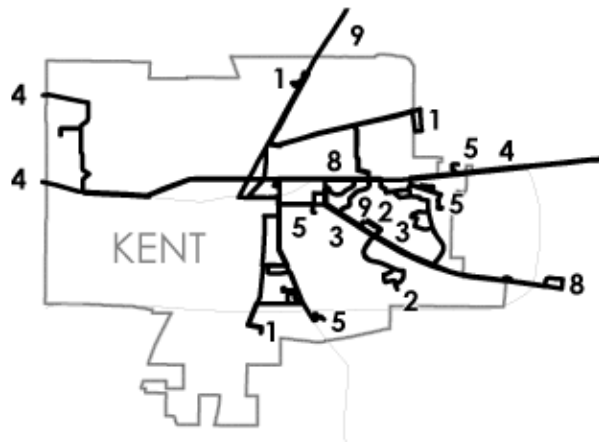
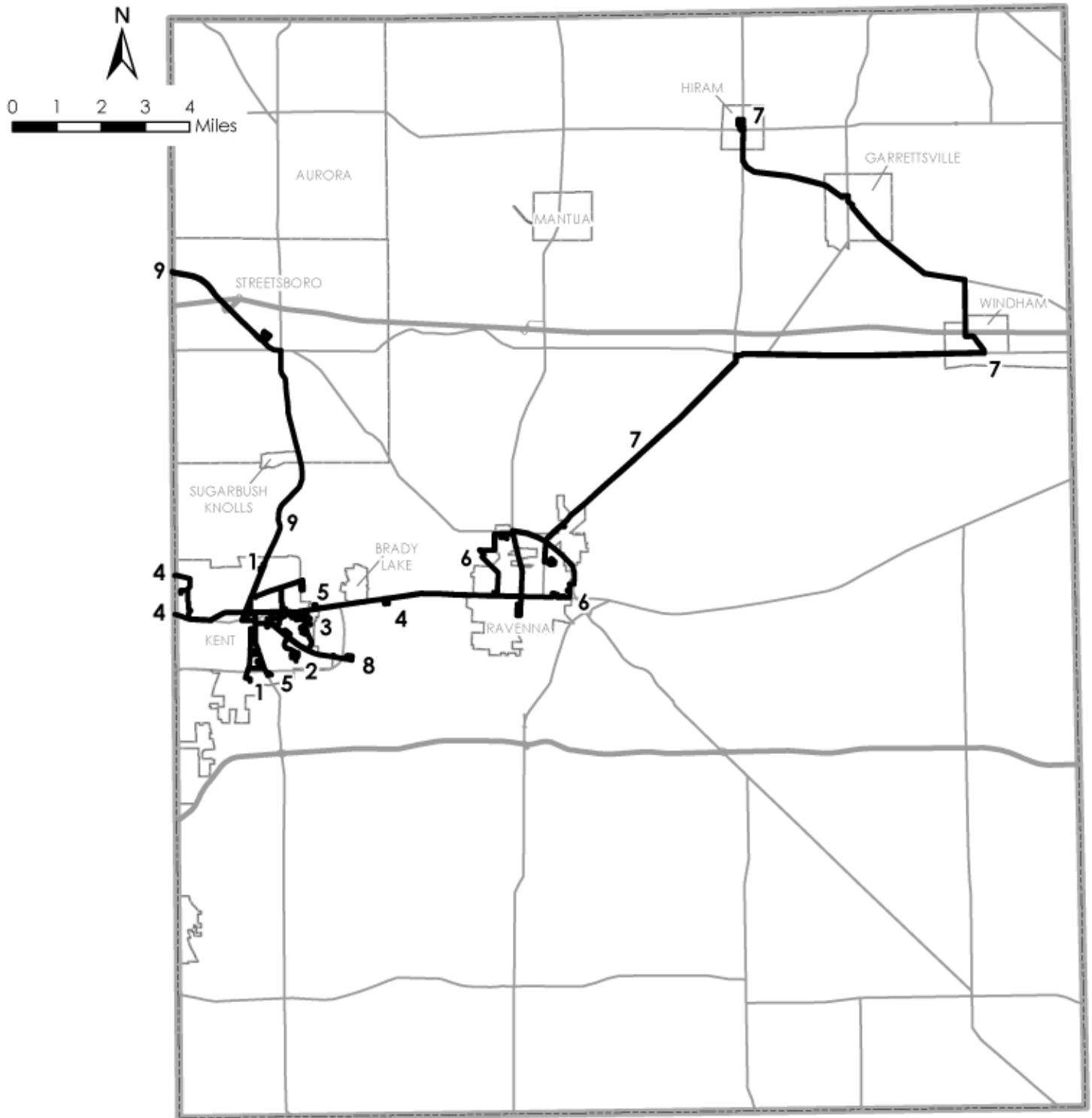


## Map 1-1 METRO ROUTES

— METRO Routes

### Route Key

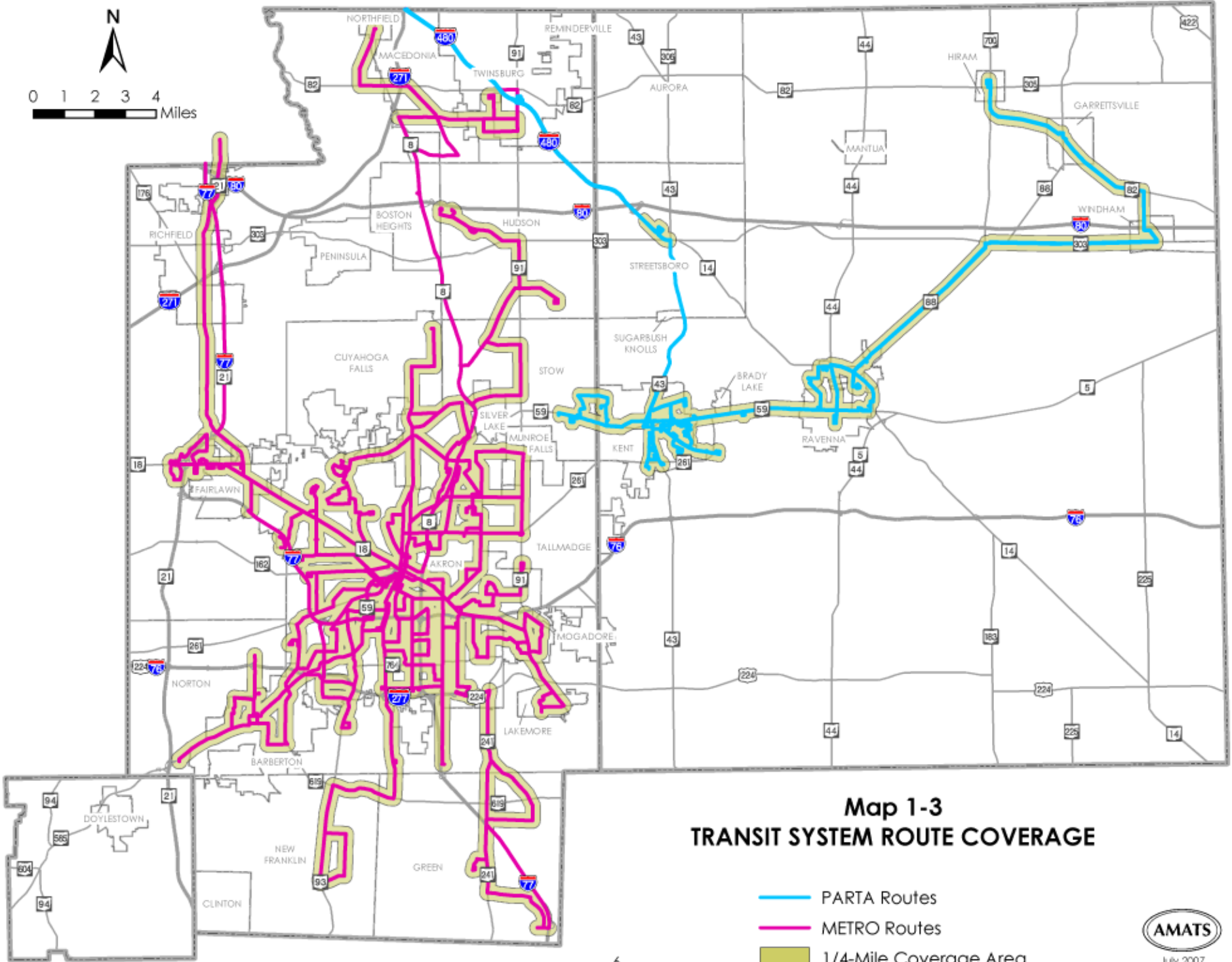
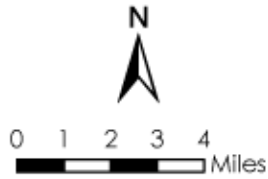
- 1 - West Market
- 2 - Arlington
- 3 - Copley Road / Hawkins
- 4 - Delia / White Pond
- 5 - East Market / Ellet
- 6 - East Market / Lakemore
- 7 - Cuyahoga Falls Ave.
- 8 - Kenmore / Barberton
- 9 - Wooster / East Ave.
- 10 - Howard / Portage Trail
- 12 - Tallmadge Hill
- 13 - Grant / Firestone
- 14 - Euclid
- 14X - Barberton Express
- 17 - Brown / Inman
- 18 - Thornton / Manchester
- 19 - Eastland
- 23 - Portage / Graham
- 24 - Lakeshore
- 28 - Merriman
- 30 - Goodyear / Darrow
- 33 - State Road / Wyoga Lake
- 34 - Cascade Village / Uhler
- 50 - Montrose Circulator
- 59 - Chapel Hill Circulator
- X60 - NCX - Chapel Hill
- X61 - NCX - Montrose
- 101 - Richfield / Bath
- 102 - Northfield / Twinsburg
- 103 - Stow / Hudson
- 110 - Green / Springfield
- 111 - South Main / Waterloo



**Route Key**

- 1 - Suburban
- 2 - Allerton
- 3 - Campus Loop
- 4 - Interurban
- 5 - Kent Circulator
- 6 - Ravenna Circulator
- 7 - Ravenna / Hiram
- 8 - Stadium Loop
- 9 - Cleveland Express

**Map 1-2  
PARTA ROUTES**  
 PARTA Routes



**Map 1-3  
TRANSIT SYSTEM ROUTE COVERAGE**

- PARTA Routes
- METRO Routes
- 1/4-Mile Coverage Area



## Total Population

In order to determine the coverage of the total population, 2000 Census data was used to calculate the percentage of the population within ¼ mile of the fixed route. Table 1-1 and 1-2 show the results of this analysis.

**Table 1-1  
2006 FIXED ROUTE TRANSIT COVERAGE  
FOR SUMMIT COUNTY AND CITIES  
TOTAL POPULATION**

<b>POLITICAL UNIT</b>	<b>TOTAL POPULATION</b>	<b>POPULATION COVERED</b>	<b>PERCENT COVERAGE</b>
Akron	220,614	178,416	80.9%
Barberton	27,913	21,366	76.5%
Cuyahoga Falls	49,848	31,830	63.9%
Fairlawn	6,645	2,510	37.8%
Green	22,814	5,224	22.9%
Hudson	22,389	3,504	15.6%
Macedonia	9,230	1,152	12.5%
Munroe Falls	5,325	1,026	19.3%
New Franklin	18,355	897	4.9%
Norton	11,524	653	5.7%
Stow	32,144	6,695	20.8%
Tallmadge	16,174	3,097	19.1%
Twinsburg	16,889	12	0.1%
City Total	459,863	256,381	55.8%
Non-City Total	83,036	15,540	18.7%
Summit County Total	542,899	271,921	50.1%

Note: Political unit totals are summaries of traffic zones, approximate to the actual political unit boundaries.

Source: 2000 U.S. Census, AMATS analysis

As shown in Table 1-1, most transit service is located in the larger cities such as Akron, Barberton and Cuyahoga Falls. Each of these cities has at least 60% coverage. Cities such as Green and Stow, which can be categorized as suburban cities, have population coverage slightly over 20%. Overall, 50% of the county's population is covered by fixed route transit.

Table 1-2 shows the amount of fixed route coverage for Portage County, which is generally concentrated around the cities of Kent and Ravenna, due to much of the county's rural geography. Over 74% of the population in Kent is within ¼ mile coverage of a fixed route. Sixty-one percent of Ravenna's population is within the ¼ mile walking distance of a fixed route. For the cities of Aurora and

Streetsboro, there is no fixed route coverage, resulting in the lack of coverage noted in the table below.

**Table 1-2**  
**2006 FIXED ROUTE TRANSIT COVERAGE**  
**FOR PORTAGE COUNTY AND CITIES 2000**  
**TOTAL POPULATION**

POLITICAL UNIT	TOTAL POPULATION	POPULATION COVERED	PERCENT COVERAGE
Aurora	13,561	0	0.0%
Kent	28,051	20,994	74.8%
Ravenna	12,215	7,500	61.4%
Streetsboro	12,330	0	0.0%
City Total	66,158	28,494	43.1%
Non-City Total	85,903	6,355	7.4%
Portage County Total	152,061	34,849	22.9%

Note: Political unit totals are summaries of traffic zones, approximate to the actual political unit boundaries.

Source: 2000 U. S. Census, AMATS analysis

Table 1-3 shows the coverage by route for both METRO and PARTA, in terms of population served, route length and persons per mile within ¼ mile walking distance. METRO, with a total of 29 routes of varying length and ridership, averages about 1,407 persons per mile. PARTA has a total of eight routes, also varying in length with ridership averaging 1,175 persons per mile. The data in Table 1-3 is not aggregated, or totaled, by system because there are overlaps in coverage among routes which would lead to double counting.

**Table 1-3  
2006 METRO and PARTA FIXED ROUTE TRANSIT COVERAGE  
POPULATION by ROUTE**

#	<u>METRO</u>	Population Served	Route Length (1 Way Mileage)	Population /Mile
	ROUTE			
1	West Market	13,655	9.1	1,502
2	Arlington	16,206	9.1	1,773
3	Copley/Hawkins	12,807	7.5	1,719
4	Delia/Fairlawn	16,858	10.1	1,671
5	East Market/Ellet	17,842	10.9	1,638
6	East Market/Lakemore	14,979	10.0	1,501
7	Cuyahoga Falls Ave.	22,263	15.4	1,443
8	Kenmore/Barberton	18,719	11.7	1,600
9	Wooster/East Ave.	13,957	6.8	2,043
10	Howard/Portage Trail	20,662	9.0	2,296
12	Tallmadge Hill	9,859	7.6	1,301
13	Grant/Firestone Pk	15,676	6.2	2,549
14	Euclid/Barberton Exp.	13,655	17.3	789
17	Brown/Inman	21,385	9.4	2,282
18	Thornton/Manchester	14,511	9.9	1,461
19	Eastland	13,916	8.9	1,560
23	Portage/Graham	17,846	11.5	1,559
24	Lakeshore Blvd	6,356	3.9	1,651
28	Merriman/Weathervane	11,186	9.3	1,198
30	Goodyear/Darrow	15,546	8.1	1,931
33	State/Wyoga Lake	16,928	11.5	1,473
34	Cascade Valley/Uhler	12,898	7.9	1,639
50	Montrose Circulator	3,120	10.5	298
59	Chapel Hill Circulator	11,523	10.2	1,134
101	Richfield/Bath	4,548	21.5	211
102	Northfield/Twinsburg	9,410	31.7	296
103	Stow/Hudson	10,975	23.8	461
110	Green/Springfield	18,697	27.7	674
111	South Main/Waterloo	27,950	24.1	1,159
	<u>PARTA</u>			
	ROUTE	Population Served	Route Length (1 Way Mileage)	Population /Mile
	Suburban	15,222	15.6	974
	Allerton	3,661	2.1	1,760
	Ravenna/Hiram	3,856	44.4	87
	Interurban	16,003	29.8	538
	Kent Circulator	9,638	6.3	1,542
	Campus Loop	8,975	3.4	2,663
	Ravenna Circulator	6,890	11.5	599
	Summit East via Stadium	7,498	6.0	1,243

Source: 2000 Census, AMATS analysis, METRO, PARTA

## Employment Coverage

Within the last decade, transportation legislation has been introduced with emphasis on providing mobility for people to get to places of employment. The Federal Transit Administration's (FTA) Job Access Reverse Commute (JARC) Program, introduced in the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21) in 1998, provides funds in the form of formula grants to eligible recipients, such as RTAs, for use towards purchasing capital and for operating costs. Other programs, such as the "Ways to Work Program" and "United We Ride", while not formula grant programs, offer the option of providing suitable modes of travel for people going to work who do not have reliable means of transportation or cannot utilize public transportation. It should be noted, that with the diversification of providers of these types of service, the burden for an RTA to try to cover all possible employment locations is lessened.

Table 1-4 shows the total number of jobs and jobs covered by fixed routes in Summit County, along with the percentage of coverage. The entire county has a substantial coverage rate of 88% of all jobs within ¼ mile of a fixed route and 89% coverage in cities and 80% coverage in non-urban areas. Cities such as Akron, Barberton, Cuyahoga Falls and Fairlawn have coverage rates of 93% and higher resulting from the amount of commercial activities that are in close proximity to major thoroughfares with bus routes. Please note that these are good coverage numbers, but this coverage is not 24-hour service or 7 day a week service.

Table 1-5 shows the total number of jobs and jobs covered by fixed routes in Portage County, along with the percentages of coverage. Overall, PARTA provides nearly 50% coverage of jobs within ¼ mile of a route, with 60% coverage in the cities. Kent and Ravenna have over 90% coverage each, resulting from the high concentration of fixed routes near major places of employment. Because of the lack of fixed route service in the northwestern part of the county, many of the jobs in Aurora and Streetsboro receive no coverage.

**Table 1-4  
FIXED ROUTE TRANSIT COVERAGE  
FOR SUMMIT COUNTY AND CITIES 2000  
JOBS**

<b>POLITICAL UNIT</b>	<b>EMPLOYED POPULATION</b>	<b>EMPLOYED POPULATION COVERED</b>	<b>PERCENT EMPLOYED COVERAGE</b>
Akron	134,247	128,163	95.5%
Barberton	14,023	13,596	97.0%
Cuyahoga Falls	25,663	24,278	94.6%
Fairlawn	13,015	12,116	93.1%
Green	13,281	9,849	74.2%
Hudson	17,344	10,235	59.0%
Macedonia	8,132	7,023	86.4%
Munroe Falls	1,510	1,319	87.4%
New Franklin	2,285	1,588	69.5%
Norton	4,990	3,252	65.2%
Stow	12,949	11,752	90.8%
Tallmadge	9,411	7,453	79.2%
Twinsburg	20,041	18,249	91.1%
City Total	276,891	248,873	89.9%
Non-City Total	48,845	39,124	80.1%
Summit County Total	325,736	287,997	88.4%

Note: Political unit totals are summaries of traffic zones, approximate to the actual political unit boundaries.

Source: 2000 U.S. Census, AMATS analysis

**Table 1-5  
FIXED ROUTE TRANSIT COVERAGE  
FOR PORTAGE COUNTY AND CITIES 2000  
JOBS**

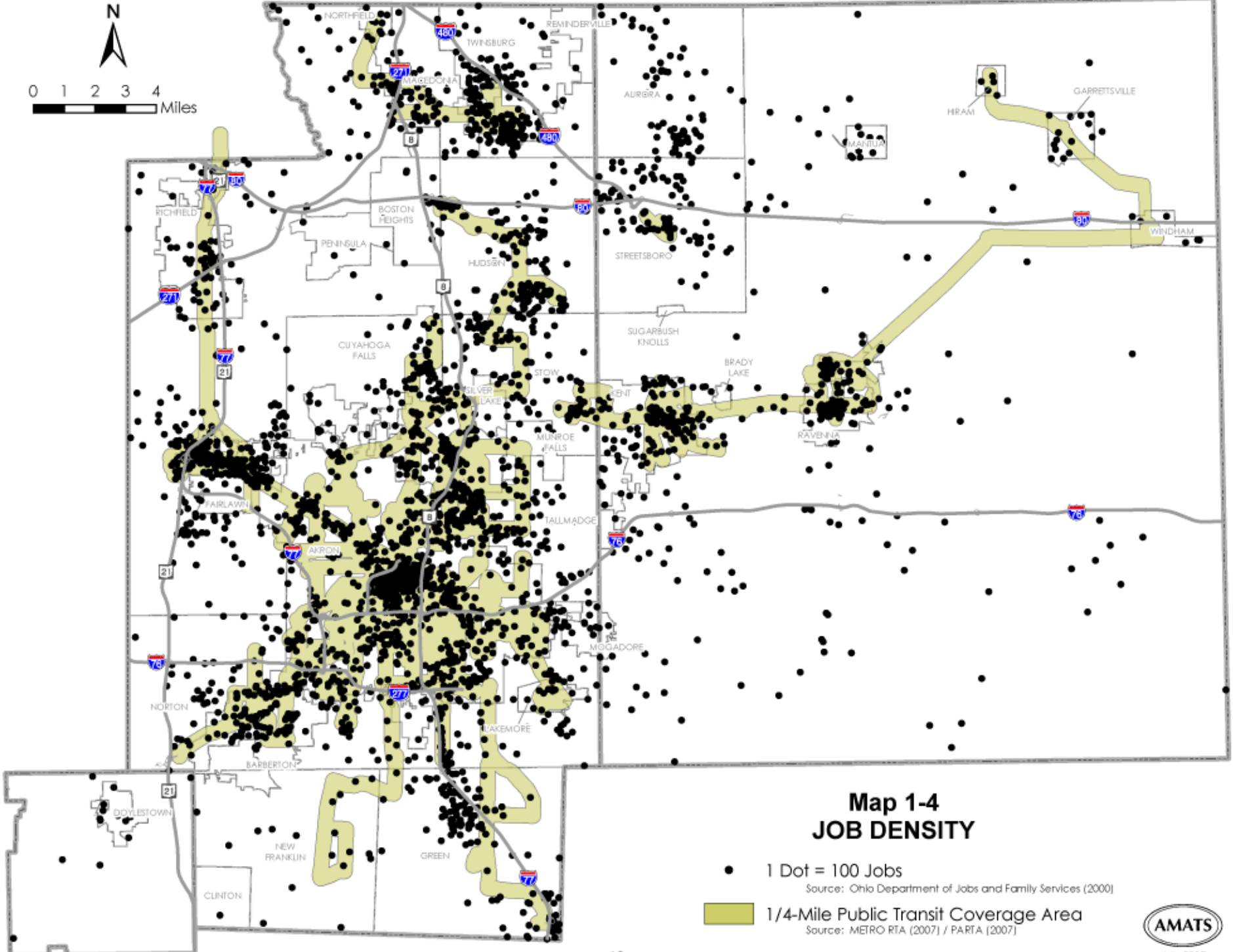
<b>POLITICAL UNIT</b>	<b>TOTAL JOBS</b>	<b>TOTAL JOBS COVERED</b>	<b>PERCENT JOBS COVERAGE</b>
Aurora	8,120	0	0.0%
Kent	12,884	12,662	98.3%
Ravenna	11,079	10,117	91.3%
Streetsboro	7,918	1,202	15.2%
City Total	40,001	23,981	60.0%
Non-City Total	21,507	5,818	27.1%
Portage County Total	61,508	29,799	48.4%

Note: Political unit totals are summaries of traffic zones, approximate to the actual political unit boundaries.

Source: 2000 U.S. Census, AMATS analysis

Table 1-6 shows coverage by route for both METRO and PARTA, in terms of jobs served, route length and jobs per mile. METRO, with a total of 29 routes of varying length and ridership, averages 2,800 jobs per mile. PARTA has a total of eight routes of varying length and ridership averaging 691 jobs per mile. The data in Table 1-6 is not aggregated, or totaled, by transit system because there are overlaps in coverage among routes that would lead to double counting.

Map 1-4 displays job density in both Summit and Portage Counties. As one would suspect, the higher densities gravitate towards the larger cities in the area. For example, Akron, Cuyahoga Falls, Fairlawn, Barberton, Kent and Ravenna all have very dense clusters of jobs.



**Map 1-4  
JOB DENSITY**

- 1 Dot = 100 Jobs  
Source: Ohio Department of Jobs and Family Services (2000)
- 1/4-Mile Public Transit Coverage Area  
Source: METRO RTA (2007) / PARTA (2007)



NOTE: Dot placement randomly positioned in each traffic zone.

**Table 1-6  
2006 METRO and PARTA FIXED ROUTE TRANSIT COVERAGE OF JOBS BY ROUTE**

#	<u>METRO</u>	Population Served	Route Length (1 Way Mileage)	Population /Mile
	ROUTE			
1	West Market	13,655	9.1	1,502
2	Arlington	16,206	9.1	1,773
3	Copley/Hawkins	12,807	7.5	1,719
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17	Brown/Inman	21,385	9.4	2,282
18	Thornton/Manchester	14,511	9.9	1,461
19	Eastland	13,916	8.9	1,560
23	Portage/Graham	17,846	11.5	1,559
24	Lakeshore Blvd	6,356	3.9	1,651
28	Merriman/Weathervane	11,186	9.3	1,198
30	Goodyear/Darrow	15,546	8.1	1,931
33	State/Wyoga Lake	16,928	11.5	1,473
34	Cascade Valley/Uhler	12,898	7.9	1,639
50	Montrose Circulator	3,120	10.5	298
59	Chapel Hill Circulator	11,523	10.2	1,134
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102	Northfield/Twinsburg	9,410	31.7	296
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	<u>PARTA</u>			
	ROUTE	Population Served	Route Length (1 Way Mileage)	Population /Mile
	Suburban	15,222	15.6	974
	Allerton	3,661	2.1	1,760
	Ravenna/Hiram	3,856	44.4	87
	Interurban	16,003	29.8	538
	Kent Circulator	9,638	6.3	1,542
	Campus Loop	8,975	3.4	2,663
	Ravenna Circulator	6,890	11.5	599
	Summit East via Stadium	7,498	6.0	1,243

Source: 2004 ES202 Data, Ohio Department of Job and Family Services; METRO, PARTA

## Temporal Coverage

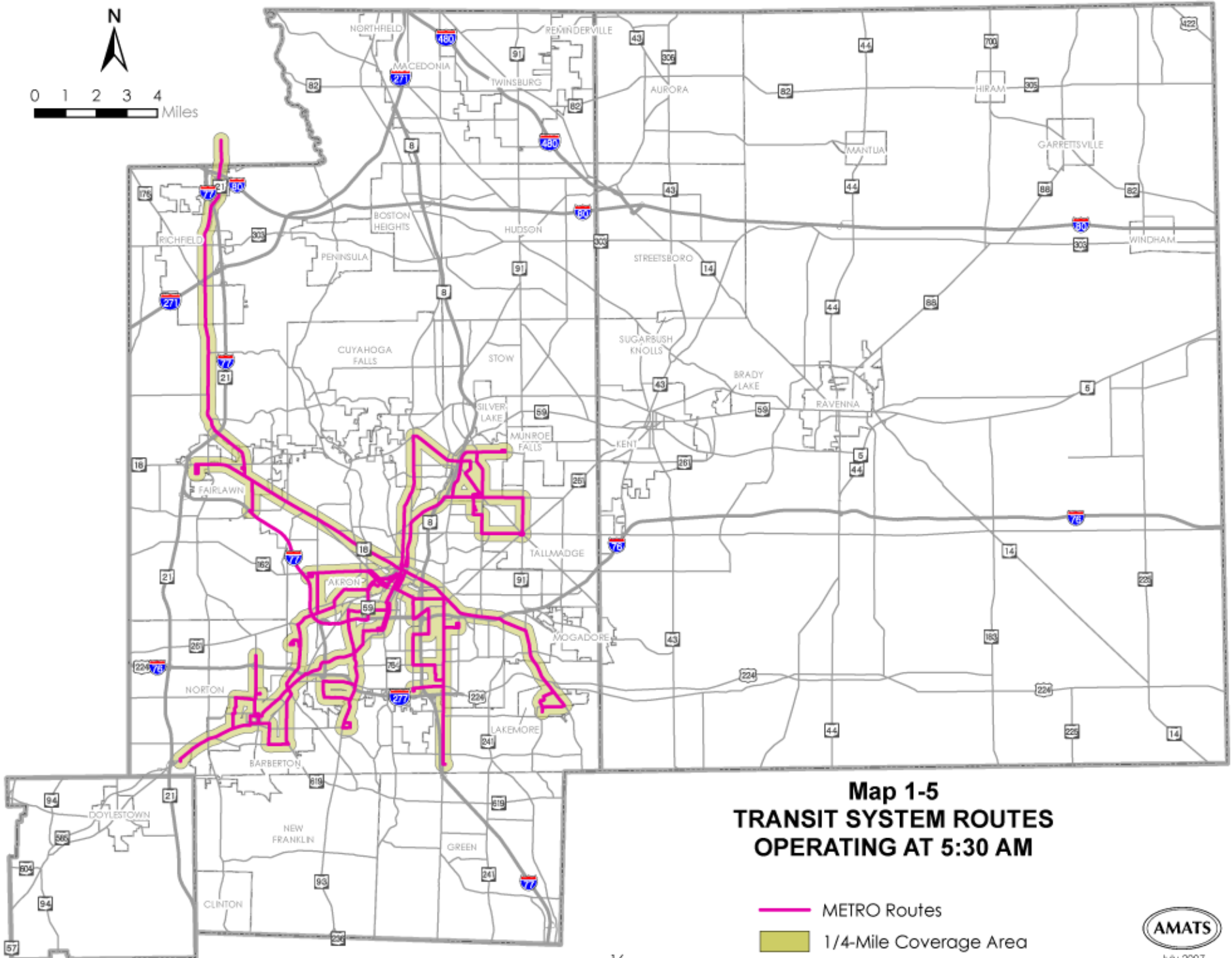
In association with the coverage of employment, three distinct time frames were analyzed for appropriate coverage of work shift times. The three times were 5:30 a.m., 12-noon and 12 midnight or later. The reason for these times is that the usual first shifts start around 6 a.m., some midday shifts start around noon, and a usual third shift ends around 11 p.m. or later. Maps 1-5 through 1-7 show the routes offering coverage at these times.

For the 5:30 a.m. time slot, any route running at this time or before was counted for the temporal coverage analysis. The 12-noon time slot had a one-hour window, ½ hour before and ½ hour after, that any route running in that time frame was counted. For the 12-midnight time slot, any routes running ½ hour before 12-midnight was counted.

With first shift start times beginning anywhere between 5 and 9 a.m., the current systems do not provide a full range of coverage throughout the area. At 5:30 a.m., significant coverage is shown around the downtown of Akron with some suburban coverage, while PARTA provides no coverage at this time.

In the middle of the workday, when some second shifts are starting and people are more on the move, ample coverage is provided by the current systems. At 12 noon, the area has almost entire coverage by both RTAs with the exception of a few routes.

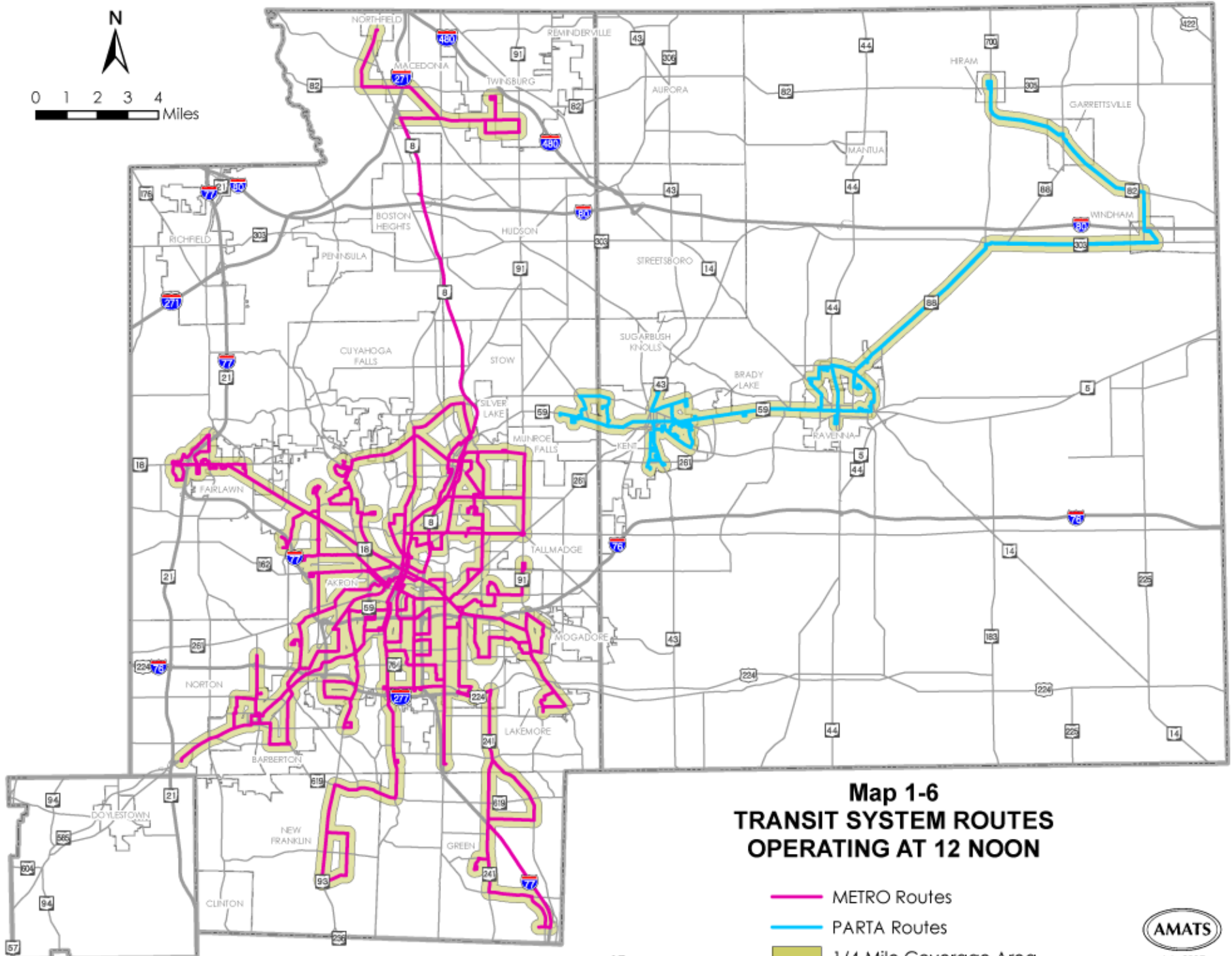
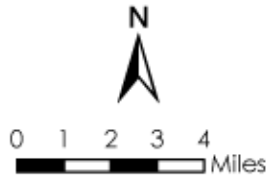
With late shift start and end times between 11 p.m. and 1 a.m., the current systems do not provide a full range of coverage throughout the area. Coverage at midnight or later is almost nonexistent with the exception of 6 routes throughout central and northern Summit County.



**Map 1-5  
TRANSIT SYSTEM ROUTES  
OPERATING AT 5:30 AM**

- METRO Routes
- 1/4-Mile Coverage Area

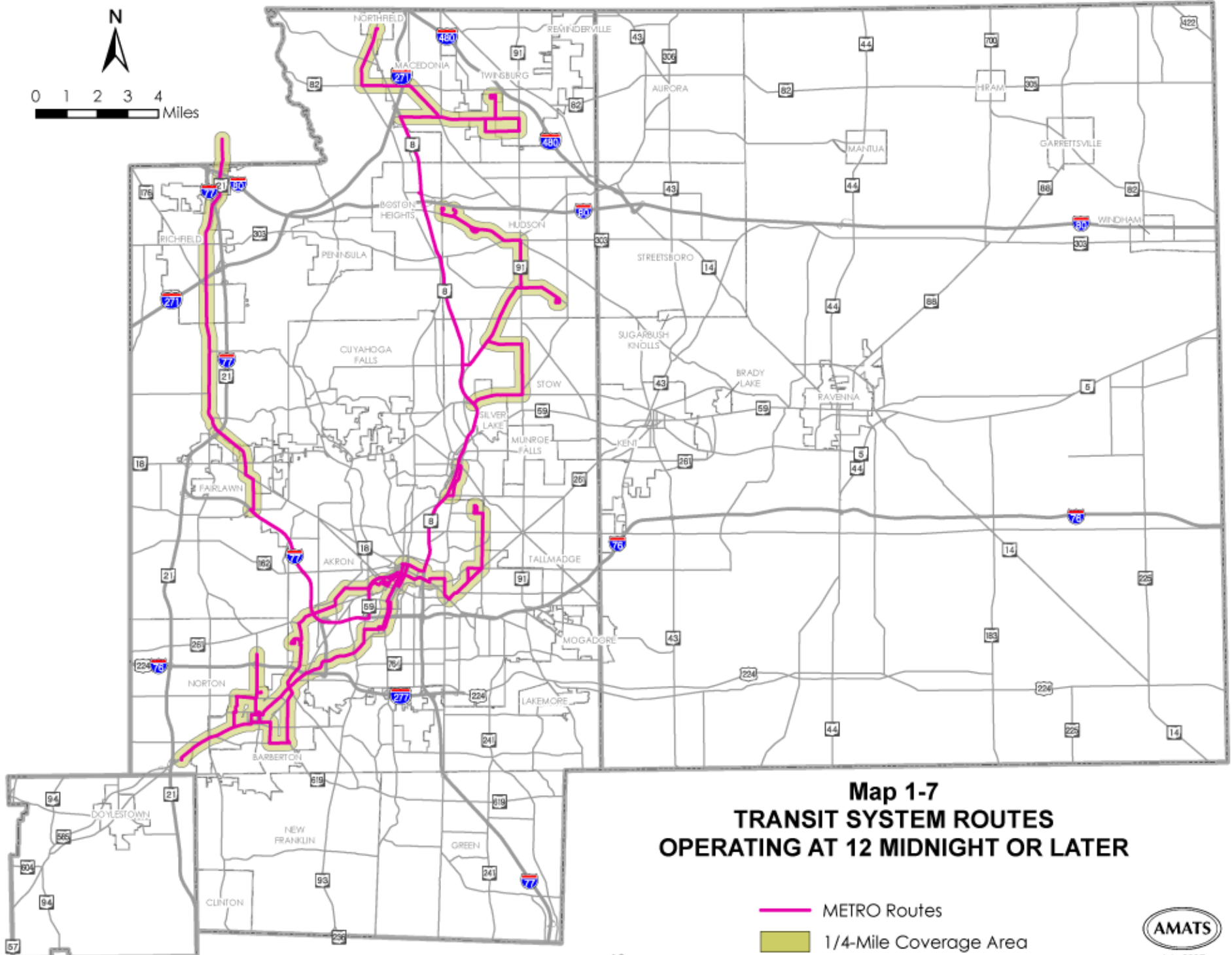
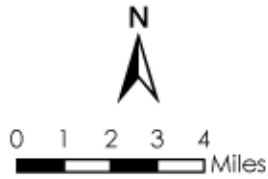




**Map 1-6  
TRANSIT SYSTEM ROUTES  
OPERATING AT 12 NOON**

- METRO Routes
- PARTA Routes
- 1/4-Mile Coverage Area





**Map 1-7  
TRANSIT SYSTEM ROUTES  
OPERATING AT 12 MIDNIGHT OR LATER**

- METRO Routes
- 1/4-Mile Coverage Area



## **Coverage for Transportation-Disadvantaged Groups**

The United States Government Accountability Office defines transportation-disadvantaged as several categories of people without personal vehicles. These groups can include the elderly, persons with disabilities and low-income persons, because people in these groups are generally unable to use or afford automobiles. Thus, access to public transportation can vastly improve their lives. It is important that concentrations of these groups be identified to determine how well public transportation serves their needs.

This section identifies three transit-dependent groups as well as the minority group and determines how well fixed route transit serves them. We look at minority population for Title VI and Environmental Justice concerns to check for disparate impacts. Please note however, that in the Akron Metropolitan area many agencies, as well as METRO's SCAT service and PARTA's demand response service, provide specialized door-to-door transportation services to the elderly and disabled. As a result, coverage for these groups should be considered more extensive than the coverage provided solely by fixed routes. In addition, various social service agencies such as United Disability Services (UDS), and the Summit and Portage County Boards of Mental Retardation and Developmental Disabilities provide door-to-door service to many of their clients.

### Elderly Population

The definition of elderly population is anyone 65 years of age or older. Table 1-7 depicts the coverage of the elderly in Summit County. Overall, fixed route coverage of the elderly in Summit County is slightly over 50%. The three highest coverage rates are for Akron, Barberton and Cuyahoga Falls at 66% or higher. Areas such as Twinsburg, Norton and Macedonia have low coverage rates due to the limited access to the fixed route system in these cities.

Table 1-8 shows the elderly population coverage for Portage County. As mentioned earlier, PARTA and other agencies provide door-to-door demand-response service to various transportation-disabled groups, such as the elderly. Along with the layout of the county, the service provided by other agencies besides PARTA, contribute to the low coverage percentage of the elderly. The entire county has 20% coverage with Kent and Ravenna having 68 and 67% coverage respectively. Because no fixed routes serve the city of Aurora, there is no reported coverage.

Map 1-8 shows the distribution of the elderly population by traffic zone.

**Table 1-7  
FIXED ROUTE TRANSIT COVERAGE  
FOR SUMMIT COUNTY AND CITIES  
ELDERLY POPULATION**

**Elderly Population**

<b>POLITICAL UNIT</b>	<b>ELDERLY POPULATION</b>	<b>ELDERLY POPULATION COVERED</b>	<b>PERCENT ELDERLY COVERAGE</b>
Akron	30,212	23,562	78.0%
Barberton	4,741	2,987	63.0%
Cuyahoga Falls	7,984	5,306	66.5%
Fairlawn	1,530	698	45.6%
Green	2,879	689	23.9%
Hudson	2,127	492	23.1%
Macedonia	874	97	11.1%
Munroe Falls	730	128	17.5%
New Franklin	355	85	23.9%
Norton	1,780	83	4.7%
Stow	3,789	981	25.9%
Tallmadge	2,979	713	23.9%
Twinsburg	1,940	6	0.3%
City Total	61,920	35,827	57.9%
Non-City Total	14,654	3,021	20.6%
Summit County Total	76,574	38,848	50.7%

Note: Political unit totals are summaries of traffic zones, approximate to the actual political unit boundaries.

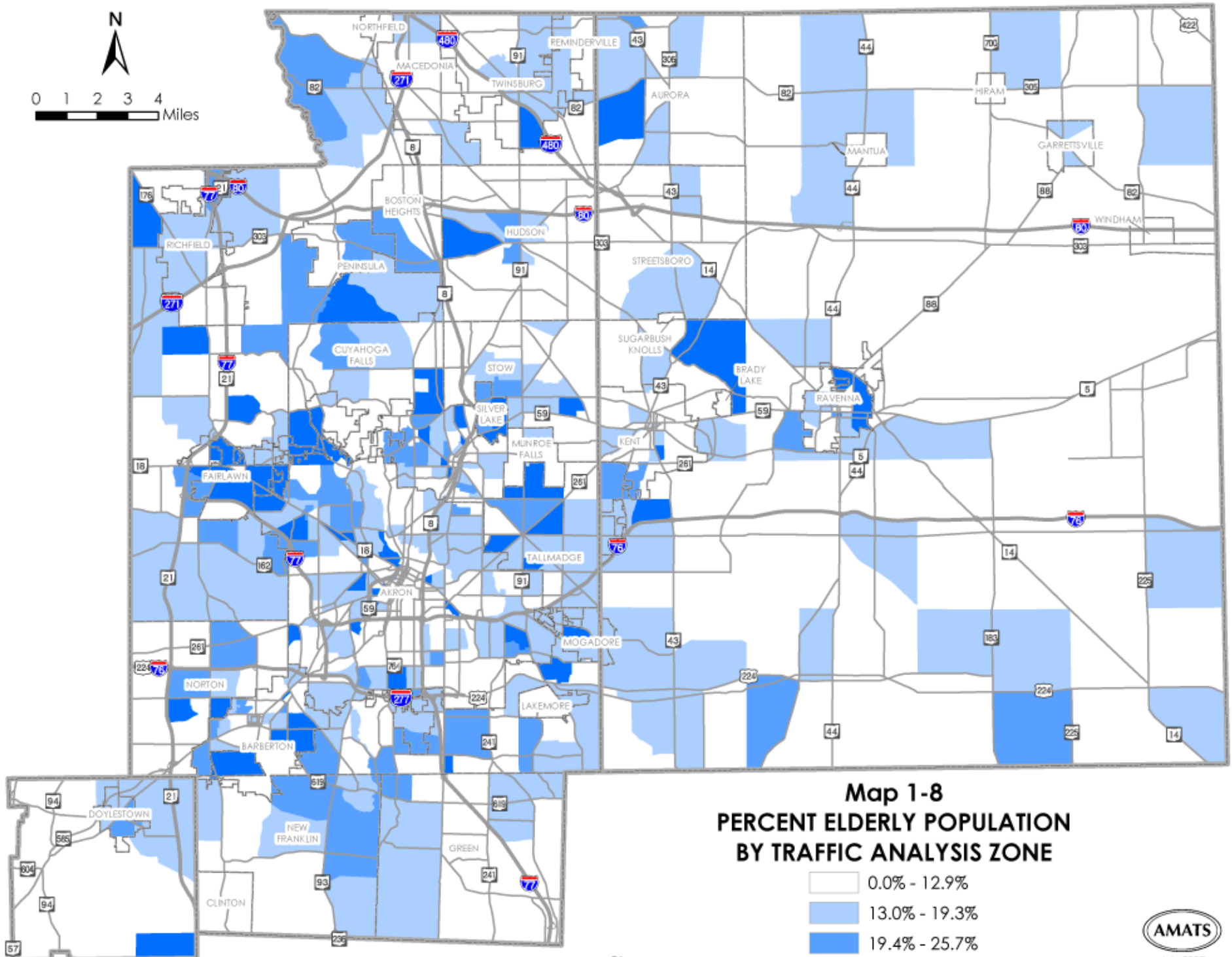
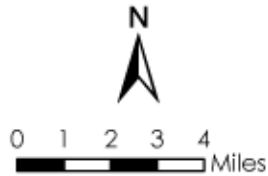
Source: 2000 U.S. Census, AMATS analysis

**Table 1-8  
FIXED ROUTE TRANSIT COVERAGE  
FOR PORTAGE COUNTY AND CITIES 2000  
ELDERLY POPULATION**

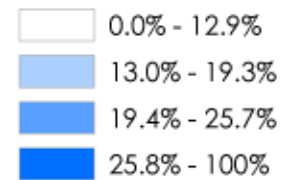
<b>POLITICAL UNIT</b>	<b>ELDERLY POPULATION</b>	<b>ELDERLY POPULATION COVERED</b>	<b>PERCENT ELDERLY COVERAGE</b>
Aurora	2,110	0	0.0%
Kent	2,067	1,424	68.9%
Ravenna	1,938	1,305	67.3%
Streetsboro	1,228	0	0.0%
City Total	7,343	2,729	37.2%
Non-City Total	9,329	610	6.5%
Portage County Total	16,672	3,339	20.0%

Note: Political unit totals are summaries of traffic zones, approximate to the actual political unit boundaries.

Source: 2000 U. S. Census, AMATS analysis



**Map 1-8  
PERCENT ELDERLY POPULATION  
BY TRAFFIC ANALYSIS ZONE**



## Transportation-Disabled Population

The term transportation-disabled refers to people with physical, visual, emotional or mental disabilities or other mobility-restricting conditions as defined by the U.S. Census Bureau. Table 1-9 shows the coverage of the transportation-disabled population for Summit County. Coverage of the county is slightly under 60%, with the cities having a 67% coverage rate. Akron, Barberton and Cuyahoga Falls are at the top of the list with rates of 68% or higher.

With minimal fixed route service outside of Kent and Ravenna, Portage County has minimal coverage as shown in Table 1-10, as is the case with the previously discussed population subcategories. Overall, the county has a coverage rate of 23%, again with Kent and Ravenna receiving most of the coverage. The non-urban areas of Portage County have a 7% coverage rate.

Again, please note, that in the Akron Metropolitan area many agencies, notably METRO's SCAT service and PARTA's demand response service, provide specialized door-to-door transportation services to the disabled. As a result, coverage for these groups should be considered more extensive than the coverage provided solely by fixed routes. In addition, various social service agencies and the county boards of MRDD provide door-to-door service to many of their clients.

Map 1-9 shows the distribution of the transportation-disabled by traffic zone.

**Table 1-9  
FIXED ROUTE TRANSIT COVERAGE  
FOR SUMMIT COUNTY AND CITIES  
TRANSPORTATION-DISABLED**

<b>POLITICAL UNIT</b>	<b>TRANSP. DISABLED POPULATION</b>	<b>TRANSP. DISABLED COVERED</b>	<b>PERCENT DISABLED COVERAGE</b>
Akron	44,265	36,936	83.4%
Barberton	5,968	4,886	81.9%
Cuyahoga Falls	7,983	5,501	68.9%
Fairlawn	1,115	491	44.0%
Green	2,745	608	22.1%
Hudson	1,530	351	22.9%
Macedonia	855	109	12.7%
Munroe Falls	790	128	16.2%
New Franklin	605	163	26.9%
Norton	1,670	86	5.1%
Stow	4,028	949	23.6%
Tallmadge	2,705	735	27.2%
Twinsburg	1,730	0	0.0%
City Total	75,989	50,943	67.0%
Non-City Total	15,113	3,188	21.1%
Summit County Total	91,102	54,131	59.4%

Note: Political unit totals are summaries of traffic zones, approximate to the actual political unit boundaries.

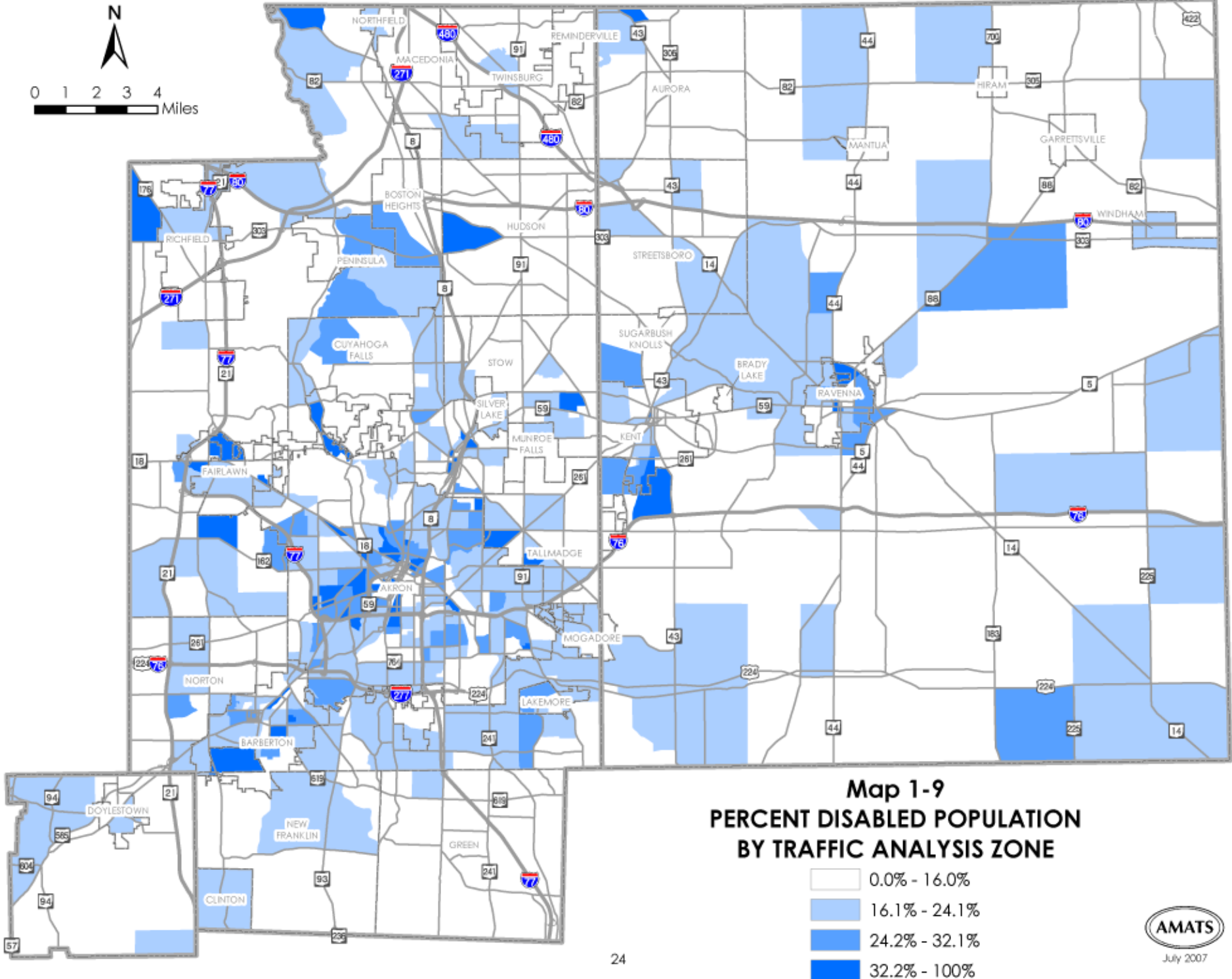
Source: 2000 U. S. Census, AMATS analysis

**Table 1-10  
FIXED ROUTE TRANSIT COVERAGE  
FOR PORTAGE COUNTY AND CITIES 2000  
TRANSPORTATION-DISABLED**

<b>POLITICAL UNIT</b>	<b>TRANSP. DISABLED POPULATION</b>	<b>TRANSP. DISABLED COVERED</b>	<b>PERCENT DISABLED COVERAGE</b>
Aurora	1,755	0	0.0%
Kent	3,574	2,652	74.2%
Ravenna	2,410	1,579	65.5%
Streetsboro	1,640	0	0.0%
City Total	9,379	4,231	45.1%
Non-City Total	12,528	974	7.8%
Portage County Total	21,907	5,205	23.8%

Note: Political unit totals are summaries of traffic zones, approximate to the actual political unit boundaries.

Source: 2000 U.S. Census, AMATS analysis



## Minority Population

The examination of fixed route coverage of minority populations was conducted in the same manner as the previous categories. As defined by the United States Department of Transportation (USDOT), minority is defined as a person who is: 1) Black (a person having origins in any of the black racial groups of Africa); 2) Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race); 3) Asian (a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); or 4) American Indian and Alaskan Native (a person having origins in any of the original people of North America and who maintain cultural identification through tribal affiliation or community recognition).

An analysis of coverage for minorities is necessary because of U.S. Department of Transportation requirements for Environmental Justice stating that no group of people, including racial, ethnic, or socio-economic group, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local and tribal programs and policies.

Tables 1-11 and 1-12 show the fixed route coverage for Summit and Portage Counties respectively. In Summit County, fixed routes cover nearly 75% of the minority population. The cities of Summit County have a coverage rate of 78%. Compared to the total population coverage for Summit County, overall minority coverage is nearly 25% higher than non-minority coverage, with Akron, Barberton and Cuyahoga Falls receiving over 72% coverage.

In Portage County, overall coverage in the cities is 60% with Kent and Ravenna having 60% or more coverage. In the non-urban areas, 21% of the minority population is covered by fixed route transit. In relation to the total population coverage for Portage County, minority coverage is about 40% higher than the total population. The non-urban areas have approximately 13% more coverage in terms of the minority population than the total population.

Map 1-10 shows the minority population concentrations in both counties. The areas with the largest concentrations of minorities somewhat follow an urban pattern. Akron has the largest concentration with the majority of the concentrations over 27.9%. Surrounding the downtown of Akron, bordering on the fringes of the suburbs, are lower concentrations ranging from 14% to 27.8%.

Throughout the remainder of the study area, there are some contiguous concentrations of minorities, but for the most part, there are mostly pockets spanning all percentages.

**Table 1-11  
FIXED ROUTE TRANSIT COVERAGE  
FOR SUMMIT COUNTY AND CITIES  
MINORITY POPULATION**

<b>POLITICAL UNIT</b>	<b>MINORITY POPULATION</b>	<b>MINORITY POPULATION COVERED</b>	<b>PERCENT MINORITY COVERAGE</b>
Akron	72,362	62,520	86.4%
Barberton	2,347	1,847	78.7%
Cuyahoga Falls	2,420	1,753	72.4%
Fairlawn	790	351	44.4%
Green	527	106	20.1%
Hudson	1,394	203	14.6%
Macedonia	869	133	15.3%
Munroe Falls	185	57	30.8%
New Franklin	270	66	24.4%
Norton	313	15	4.8%
Stow	1,680	349	20.8%
Tallmadge	849	218	25.7%
Twinsburg	2,420	0	0.0%
City Total	86,426	67,618	78.2%
Non-City Total	6,102	1,389	22.8%
Summit County Total	92,528	69,007	74.6%

Note: Political unit totals are summaries of traffic zones, approximate to the actual political unit boundaries.

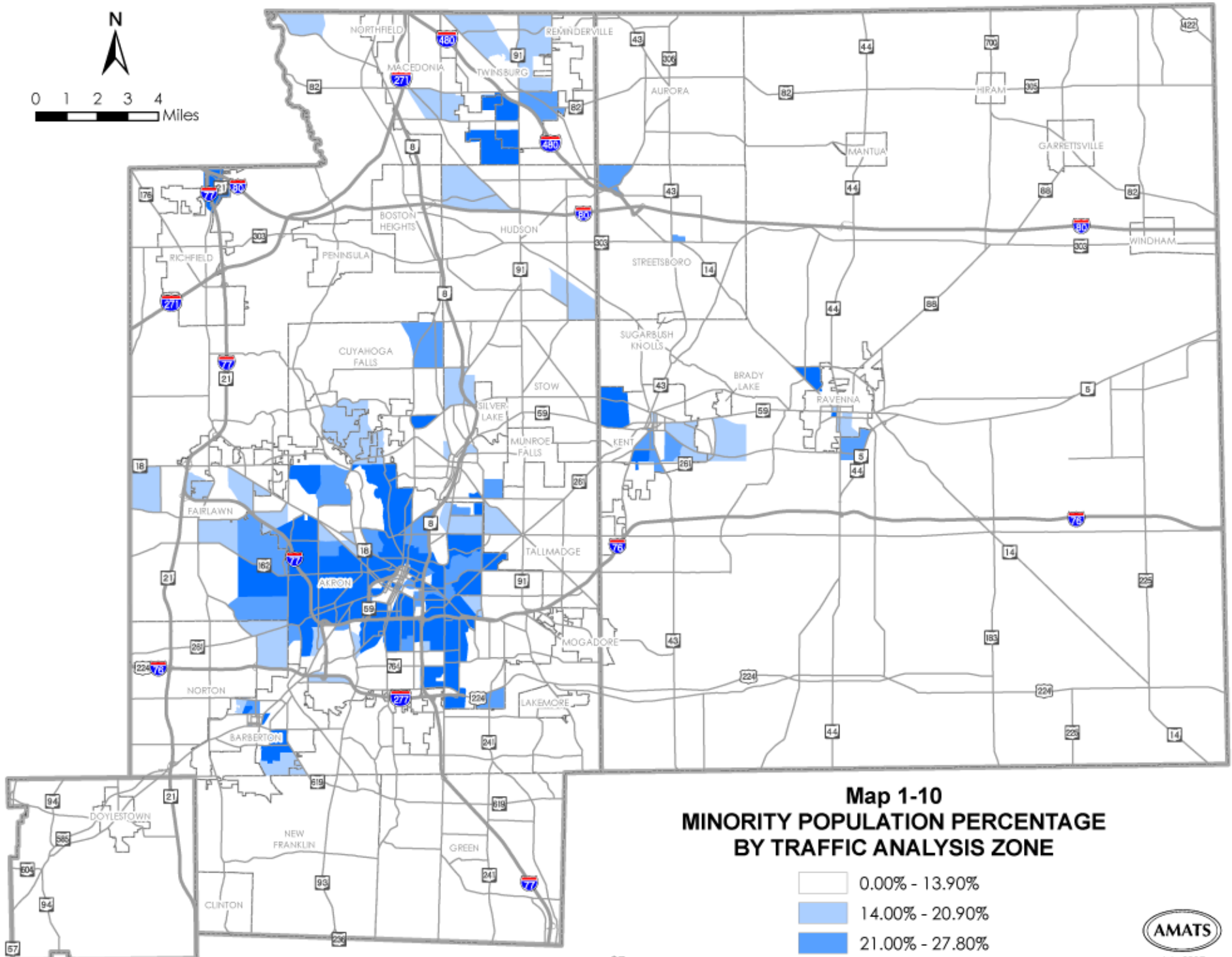
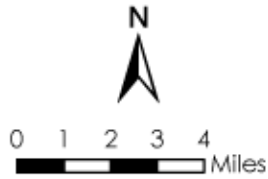
Source: 2000 U.S. Census, AMATS analysis

**Table 1-12  
FIXED ROUTE TRANSIT COVERAGE  
FOR PORTAGE COUNTY AND CITIES 2000  
MINORITY POPULATION**

<b>POLITICAL UNIT</b>	<b>MINORITY POPULATION</b>	<b>MINORITY POPULATION COVERED</b>	<b>PERCENT MINORITY COVERAGE</b>
Aurora	619	0	0.0%
Kent	4,159	3,227	77.6%
Ravenna	954	577	60.5%
Streetsboro	609	0	0.0%
City Total	6,341	3,804	60.0%
Non-City Total	2,434	528	21.7%
Portage County Total	8,775	4,332	49.4%

Note: Political unit totals are summaries of traffic zones, approximate to the actual political unit boundaries.

Source: 2000 U.S. Census, AMATS analysis



**Map 1-10  
MINORITY POPULATION PERCENTAGE  
BY TRAFFIC ANALYSIS ZONE**

- 0.00% - 13.90%
- 14.00% - 20.90%
- 21.00% - 27.80%
- 27.90% - 100%



## Low Income

In the case of the three previous population subcategories, data were collected at the traffic analysis zone level. For the low-income subcategory, data were collected at the Census block group level because income data is not available at the traffic zone level. The definition of low-income used for this report is an income equaling 150% of the poverty level. The 2006 poverty level for a single individual is \$9,800 per year as stated by the Department of Health and Human Services. Low income would then be calculated as an individual salary of \$14,700 or less.

In Summit County, shown in Table 1-13, over 76% of the low income population is within walking distance of a fixed transit route. The low-income population in the majority of the cities in Summit County has coverage of at least one third of the people. In the non-urban areas, 24% of the people in the low-income designation are covered by transit.

**Table 1-13  
FIXED ROUTE TRANSIT COVERAGE  
FOR SUMMIT COUNTY AND CITIES  
LOW INCOME**

<b>POLITICAL UNIT</b>	<b>LOW INCOME POPULATION</b>	<b>LOW INCOME POPULATION COVERED</b>	<b>PERCENT LOW INCOME POPULATION</b>
Akron	57,461	50,872	88.5%
Barberton	6,377	4,462	70.0%
Cuyahoga Falls	6,467	4,156	64.3%
Fairlawn	339	205	60.5%
Green	2,097	509	24.3%
Hudson	715	132	18.5%
Macedonia	287	91	31.7%
Munroe Falls	201	37	18.4%
New Franklin	1,183	242	20.5%
Norton	1,225	89	7.3%
Stow	2,487	613	24.6%
Tallmadge	1,652	475	28.8%
Twinsburg	1,309	181	13.8%
City Total	81,800	62,064	75.9%
Non-City Total	4,996	1,196	23.9%
Summit County Total	86,796	63,260	72.8%

Note: Political unit totals are summaries of block groups, approximate to the actual political unit boundaries.

Source: 2000 U.S. Census, AMATS analysis

**Table 1-14  
FIXED ROUTE TRANSIT COVERAGE  
FOR PORTAGE COUNTY AND CITIES 2000  
LOW INCOME**

<b>POLITICAL UNIT</b>	<b>LOW INCOME POPULATION</b>	<b>LOW INCOME POPULATION</b>	<b>PERCENT LOW INCOME POPULATION</b>
Aurora	880	0	0.0%
Kent	7,810	5,287	67.7%
Ravenna	2,362	1,745	73.9%
Streetsboro	1,269	0	0.0%
City Total	12,321	7,032	57.1%
Non-City Total	2,672	989	37.0%
Portage County Total	14,993	8,021	53.5%

Note: Political unit totals are summaries of block groups, approximate to the actual political unit boundaries.

Source: 2000 U.S. Census, AMATS analysis

Table 1-14 shows the fixed route transit coverage of the low-income population in Portage County. As noted in the previous subcategories, due to the lack of fixed routes in the cities of Aurora and Streetsboro, 0% of the low-income population is covered. Kent and Ravenna have over 67% coverage, with a total incorporated area coverage 57%. The non-urban areas of Portage County have a coverage rate of 37%.

Map 1-11 shows the concentrations of low-income people in Summit and Portage Counties.



Overall, fixed route transit coverage for the Akron Metropolitan area does provide adequate mobility for all persons. The analyses performed for both METRO RTA and PARTA show that large portions of populations in both Summit and Portage Counties receive fixed route transit coverage.

For the combined Summit and Portage Counties, nearly 50% of the entire population is covered, within ¼ mile of a fixed route. In terms of providing people with a means to get to work, approximately 82% of all jobs in the Akron Metropolitan area are covered by fixed route transit at some point during the day. Please note that not all jobs are covered with the same frequency of service or throughout the entire day. Limited service is provided on the weekends.

For the transportation-disadvantaged population, consisting of the elderly, low income, transportation disabled and minority populations, adequate fixed route transit service is being provided.

The elderly population of the Akron Metropolitan area receives slightly less than 50% coverage by fixed route transit. The disabled population receives approximately 52% coverage while the low-income and minority populations receiving 70% and 72% coverage, respectively.

Possible recommendations for improvement are discussed in the conclusion of the report.

## SECTION 2

### SYSTEM AND ROUTE PERFORMANCE

With limited transportation funds and funding sources, public transportation systems should operate efficiently and effectively as possible. In essence, the transportation authorities and the transit riders should both get the most for their dollar.

Section 2 analyzes the performance of area public transportation services to evaluate efficiency. The analysis is completed in two ways. First, overall system efficiency is evaluated by comparing area public transportation services with similar services in other areas of the country as well as other similar services in Ohio. The second analysis compares individual transit routes using nationally recognized performance standards used in the transit industry. The data source for this analysis is the 2005 National Transit Database compiled by the Federal Transit Administration. The National Transit Database is published annually and includes information on operating expenses, revenue and ridership for all transit agencies in the United States. The latest available year for agency data is 2005. This information is used by both METRO and PARTA in their on-going efforts to adjust their service to better meet the needs of the public.

#### **Peer Group Comparison**

This analysis establishes peer groups and evaluates the performance of METRO and PARTA's fixed route and demand-response service in comparison to their peers. Peers are similar transit agencies grouped together to compare transit system performance between agencies. The systems in these groups are selected based on mode of operation, service area size, service area population and bus fleet size.

Peer groups were prepared for the following services:

- 1) METRO Fixed Route
- 2) METRO Demand-Response (SCAT)
- 3) PARTA Fixed Route
- 4) PARTA Demand-Response

Tables 2-1 through 2-4 show the results of these analyses. The tables list each peer and the averages of the peer group. The peer group average is an average of the peers only and does not include METRO's/PARTA's system statistics.

## METRO

### Fixed Route-

Table 2-1 compares the performance characteristics of the METRO fixed route system and its peers from across the nation.

- METRO is above the peer average ridership with 2.05 passengers per mile compared to 1.80 people per mile.
- METRO's cost per passenger is above the peer average of \$3.58.
- METRO's cost per hour is approximately \$18 above the peer average.
- METRO recovers 13.05% of fares collected compared to the peer average of 21.16%.

### Demand-Response-

Table 2-2 compares the performance characteristics of METRO's demand-response, SCAT, and several of its peers from around the nation.

- SCAT operates below the peer group average in terms of passengers per mile with 0.10 as opposed to the average of 0.16.
- SCAT has 1.43 passengers per hour, which is approximately 50% less than the peer average.
- SCAT has better than average costs per mile at \$3.02 and costs per hour at \$44.16. SCAT's cost per passenger is worse than average at \$30.79 opposed to \$26.66.
- In terms of farebox recovery, SCAT recovers better than average costs at 11.69% with the peer average at 6.08%.

Overall, METRO performs well when compared to its peers. For the fixed route service, there are some reasons why METRO might perform worse than average in terms of cost per hour, mile and passenger. One is that they might be charging to low of fares. If there were a fare increase, the additional revenue could offset the costs. Another possibility is that operating costs are too high and could be lowered to also offset the costs. Another possible reason is that compared to its peer's average, METRO has over 2 million less passenger trips which would result in a less favorable situation in regards to farebox recovery.

METRO's SCAT service performs well in relation to its peers. For a demand-response service with as large a population and coverage area as METRO has, they perform below the peer group average in terms of cost per mile and hour while still recovering almost double the cost that the peer average does. This is the case even though METRO carries slightly over half of the passenger trips in relation to the peer average.





## PARTA

### Fixed Route-

Table 2-3 compares the performance characteristics of PARTA's fixed route system and its peers from across the nation.

- At roughly 1.5 times the peer average, PARTA has better than average passengers per mile.
- With a cost of \$47.11, PARTA performs better than average. Reasons for this are:
  - Free fare for all Kent State University Students via contract service with the university. Revenue is not reflected in the farebox figures.
  - The students account for about half of all ridership.

### Demand-Response-

Table 2-4 compares the performance characteristics of PARTA's demand-response system and its peers from across the nation. Door-to-door demand-response service comprises approximately one fourth of the service provided by PARTA.

- In terms of passengers per mile & per hour, PARTA is comparable to its peers.
- All of PARTA'S costs are better than average, indicating high efficiency.

System wide, both METRO and PARTA perform well. In relation to their peers, they perform better than average on the whole even with large coverage areas and comparable service populations. PARTA provides an invaluable service to Kent State University students via a contract with KSU where student identification cards are presented by students instead of bus fare yielding low farebox recovery.





## **Route Analysis**

This section focuses on analyzing individual route performance data provided by METRO and PARTA.

METRO and PARTA routes have been analyzed using their October 2006 monthly performance reports. These reports include ridership, costs, revenue and mileage. October data was used because that month provides a “best-case” scenario. The reason for October being the best-case scenario is that schools are in session, both Kent State University and the University of Akron, and K-12 schools. Also, because the weather is mild in October, people are more likely to use a form of public transportation rather than in the winter.

METRO and PARTA's routes were analyzed for the following categories: passengers per mile, operating cost per passenger, cost per mile and cost per hour. In the following analysis, only METRO's fixed routes will be discussed in detail because METRO's fixed route system is the largest of both RTAs and there is a large degree of variance between the highest and lowest performing routes within their system.

### METRO

Table 2-5 describes the passengers per vehicle revenue mile, operating cost per passenger (the cost to operate the vehicle when carrying passengers) and cost per mile (the cost to operate the vehicle for every mile it travels) for METRO's system routes.

Fixed Routes-

Passengers per vehicle revenue mile-

The highest performing routes in terms of having the lowest number of passengers per vehicle revenue mile:

- Route 2 (Arlington) had 3.74 passengers per mile
- Route 33 (State/Hudson Dr.) had 3.67 passengers per mile
- Route 1 (West Market) had 3.40 passengers per mile

The lowest performing routes in terms of having the highest number of passengers per vehicle revenue mile:

- Route 23 (Main/Broad/Wyoga) had 0.83 passengers per mile
- Route 28 (Merriman/Weathervane) had 0.93 passengers per mile

- Route 14 (Euclid/Barberton Express) had 1.45 passengers per mile

Operating cost per passenger-

The highest performing routes in terms of operating at the lowest cost per passenger are:

- Route 1 (West Market) at \$1.50 per passenger
- Route 2 (Arlington) at \$1.65 per passenger
- Route 3 (Copley Rd/Hawkins) at \$1.88 per passenger.

The lowest performing routes in terms of operating at the lowest cost per passenger are:

- Route 23 (Main/Broad/Wyoga) at \$9.51 per passenger
- Route 28 (Merriman/Weathervane) at \$3.86 per passenger
- Route 24 (Lakeshore Blvd.) at \$3.33 per passenger

Cost per mile-

The highest performing routes in terms of operating cost per mile are:

- Route 28 (Merriman/Weathervane) at \$3.58 per mile
- Route 14 (Euclid/Barberton Express) at \$4.47 per mile
- Route 7 (Cuyahoga Falls Ave.) at \$4.51 per mile

The lowest performing routes in terms of operating cost per mile are:

- Route 33 (State/Hudson Dr.) at \$8.03 per mile
- Route 23 (Main/Broad/Wyoga) at \$7.94 per mile
- Route 24 (Lakeshore Blvd.) at \$6.32 per mile

Overall, some of METRO's higher performing routes are the #1 (West Market), #2 (Arlington), #7 (Cuyahoga Falls Ave.) and the #33 (State/Hudson Dr.). On the other end are some of the lower performing routes such as the #23 (Main/Broad/Wyoga), #24 (Lakeshore Blvd.) and the #28 (Merriman/Weathervane). These routes were determined to be either high performing or low performing based on consistency of performance in regards to passengers per mile, operating cost per passenger and cost per hour.

As with any type of service, not every route is going to be the highest performing, or the lowest performing. To rectify the routes that are categorized as lower performing routes, measures can be taken to improve performance. At this time, further studies are needed to determine which particular measures are needed to improve the performance of individual routes.

For the remainder of METRO's service, which includes the Circulator, Express and Town Center Route systems, there is not much variation between the routes in their respective categories as shown in Table 2-5. For the Circulator and Express Routes, each system only has two routes. Likewise, METRO's Town Center Routes, which include five routes, has the same issue. For statistics such as passengers per mile, cost per mile and cost per hour, the variation is very small and can be measured in cents.

However, for the category of operating cost per passenger, the case is slightly different. There is some degree of variation due to high or low ridership that expresses the #111 (South Main/Franklin) as the highest performing for this category and the #102 (Northfield/Twinsburg) as the lowest performing with the remaining three routes falling in between.

## PARTA

Table 2-6 describes the passengers per vehicle revenue mile, operating cost per passenger and operating cost per mile for PARTA's system routes.

Of the three flexible fixed routes, the Suburban and Interurban both perform very well due to their concentration of more densely populated areas. The third flexible fixed route, the Ravenna-Hiram, does not perform as well as the other two routes due to the low population density of north central Portage County. PARTA's Kent Circulator and Ravenna Circulator Routes, which operate in their respective cities, perform comparably. Both carry approximately the same number of passengers per mile and nearly the same in cost of operating per passenger as well as per mile and per hour. The same can be said for the Express Routes to Akron and Cleveland.

PARTA's campus routes, serving Kent State University, are analyzed separately. As mentioned earlier, the former Kent State Campus Bus Service was acquired by PARTA in 2004. The Campus Routes, which operate on Kent's main campus, transport students at no direct charge to the student. This is shown in Table 2-6 with \$0 in farebox revenue and a farebox recovery rate of 0%. Because of the high ridership numbers, the passengers per mile are high and the operating cost per passenger is low.

System wide, both METRO and PARTA's routes provide a thorough level of service. As with any route structure, both systems have routes that perform well

and routes that could improve. Improvements could consist of less extensive geographic coverage or more extensive demand-response, or by limiting the number of times the lower performing routes run during the day.

It should be noted that transit route performance is only one of many factors considered in providing transit services in the area. Other considerations include the social and environmental impacts of service retention, restructuring, or reduction of individual routes on the communities each route serves, and on the operation of the system as a whole.

In addition, Express and Town Center routes tend to be longer, and serve areas with lower population density than standard Line Service routes. As a result, passengers per mile rates for Express and Town Center routes tend to be lower than the passengers per mile rates for Line Service routes. For this reason, Line Service routes, Town Center routes, Neighborhood Circulators and Express routes were evaluated separately from one another.





## CONCLUSION

Section 1 of this report described the existing public transportation system of the area and analyzed the coverage provided by METRO and PARTA's fixed route transit services to the area's residents. The evaluations are based on how well existing services provide coverage to their intended areas.

Overall, standard fixed route bus service provides coverage to 44% of the total population in Summit and Portage Counties. Attempts to provide coverage to the remaining 56% of the population become more costly because of lower population densities and the more remote locations of some isolated developments in the area. Those potential riders who are covered by fixed routes have access to 82% of the jobs in Summit and Portage Counties.

Section 2 of this report focused on evaluating transit system and route efficiency and effectiveness. METRO and PARTA's overall system performance have been analyzed in comparison with their peers from across the country, in terms of both fixed route service and demand-response service.

The system performance was evaluated in terms of the following benchmarks: cost per passenger, passengers per mile, cost per mile and farebox recovery. Both systems perform well in terms of passengers per mile. METRO demonstrated higher costs compared to its peers. While PARTA demonstrated lower costs compared to its peers.

The route level analysis included in this report covers both METRO and PARTA as well. The performance of individual routes varies within the system. In general, routes serving higher density areas of population and employment, with the most direct paths, exhibit the best ridership statistics. Routes serving lower density areas of population and employment, with more indirect paths, tend to exhibit poorer ridership statistics.

### **Potential Opportunities for Improvement**

The following opportunities to improve the area's transit service have been identified based on the results of this report. The suggested improvements discussed below are offered without consideration to the availability of funds. Some of the suggested improvements may only be considered when additional funding becomes available.

#### **Regional Opportunities**

Opportunity 1: Extension of service hours

If operating funds are available, METRO and PARTA may both have an opportunity to expand the morning start and evening end times of their fixed bus routes to cover the first shift start times and second shift ending times of the

area's businesses. Additional routes are needed to be running at or before 5:30 a.m. Additional routes may also be needed until 12 midnight or even later.

Currently, with many companies having second or third shifts, many employees are not able to use transit to get to work at these times. Extending the service hours of METRO and PARTA's fixed routes will provide greater options to the unemployed and low-income population.

#### Opportunity 2: Intercounty transit service

The report found a need for greater connectivity by means of intercounty transit service. Because of the movement of jobs and concentrations of retail, service and industry to more outlying areas (such as the Stow-Kent area, and the Brimfield area), more people would benefit in reaching these locations. Residents of Portage County may wish to travel to nearby portions of Summit County. And residents of Summit County may wish to travel to nearby portions of Portage County.

In addition, more people would benefit from connections to the Greater Cleveland Regional Transit Authority (GCRTA). The nearby communities of Bedford and Solon possess a high density of shopping and employment locations. More people in Summit and Portage Counties would benefit from intercounty service in reaching these destinations, and then also gain greater access to the entire GCRTA system.

This report does not attempt to determine the precise routes or the appropriate agency for implementing these services. If funds become available at a later date, the interested transit agencies may wish to entertain viable alternatives in implementing intercounty transit service.

### **METRO RTA**

METRO is doing a good job overall in providing service to most of the people in Summit County. The service provided by METRO's fixed routes could be increased in terms of the frequency of routes throughout the day, and as stated above, in terms of providing service over a longer period of the day. Also, the service provided by METRO's current linear configuration of its system routes could be augmented by adding some routes that do not radiate from downtown Akron. Opportunities for enhancing METRO's service are listed below.

#### Opportunity 1: Increase Express Route Service Frequency

METRO may wish to consider increasing the frequency of their existing express route service to Cleveland. It is recommended that service levels on the X60 and X61 initially be brought up to 30-minute frequencies in the morning and afternoon. Also, the formation of at least one midday round trip on each route

is recommended to improve mobility for the riders with destinations in either Akron or Cleveland. One concern of METRO users is the possibility of being stranded in Cleveland for the entire day or evening because of the limited opportunity to catch a bus back to Akron.

#### Opportunity 2: Crosstown routes

METRO may wish to consider additional crosstown routes that do not go to downtown Akron in the standard radial pattern. The need for the additional crosstown routes is to ensure that riders are not forced to come to downtown Akron and then go back out again to the suburban areas. To that end, METRO may wish to examine the following crosstown routes:

- A route in the East Akron/Ellet area connecting Canton Road and Albrecht Avenue to Chapel Hill via Eastwood Avenue and Brittain Road.
- A route connecting State Road and the Stow-Kent area via Graham Road, and
- A route connecting Barberton and Montrose.

METRO is in the process of completing the analysis of a recently conducted on-board survey. The results of this analysis may provide relevant data supporting the implementation of a crosstown route.

### **PARTA**

The lower population density of Portage County offers unique challenges to PARTA. Due to the lower population density in Portage County (only 43% of the population live in cities), it is more difficult to provide transit service that is cost effective. This is particularly true with door-to-door demand response service.

PARTA serves only 23% of the population of Portage County with fixed bus routes. Currently there is no such service to two of the larger, growing cities in the county, Aurora and Streetsboro. By providing service to these cities, the people of Portage County will be able to access the expanding retail, service and industrial jobs in Aurora and Streetsboro.

In 2004 PARTA assumed responsibility of the routes run formerly by Campus Bus Service (CBS). To optimize service, the former CBS routes and the pre-existing PARTA routes could be streamlined to reduce redundancy and run as one system.

#### Opportunity 1: Provide Fixed Route Service to Northwestern Portage County

PARTA may wish to consider providing service to the cities of Aurora and Streetsboro. Because of the increases in commercial activity in the northwestern part of the county, this area has become a destination for many Portage

County residents. In addition, many Kent State University students could be transported to the retail locations in Aurora and Streetsboro, served via SR 43, and connected to the other fixed route service in Kent. Unfortunately, much of the development in the Aurora/Streetsboro area is unfriendly to pedestrian movement or transit access.

#### Opportunity 2: Reevaluate PARTA's Fixed Route Service in Kent

Another opportunity for PARTA is to reevaluate service in the City of Kent. Since Campus Bus Service (CBS) no longer operates buses, PARTA has been running the CBS routes since 2004. In light of the on-going changes to the Kent State University campus and the Crain Avenue area, it may be an opportune time to reevaluate service around the City of Kent and the campus. The inset of map 1-2 shows the fixed routes that PARTA provides for the City of Kent. By reevaluating the routes that serve the city and the campus, some buses might be freed to increase service or extend service to other parts of the county.

This report will be used to develop the AMATS 2030 Public Transportation Needs Report. The results of this report will be used to identify needed capital and operating improvements in the area's upcoming Regional Transportation Plan.