MARKET ANALYSIS: CLEVELAND REGION

Overview

The Ohio Statewide Transit Needs Study included a market analysis to understand the existing conditions in Ohio related to the demand for and availability of transit service. The study is designed to understand where there are needs for transit service and how well needs are matched with existing service.

The market analysis was conducted at a county level as well as from a statewide perspective, with an analysis prepared for each of Ohio’s 88 counties. Results from the statewide market analysis are published as a separate document. Results for each of the individual counties are grouped into five regional summary documents. This document includes the individual county write-ups for the 18 counties in northeast Ohio surrounding Cleveland. It includes data on the counties’ historical trends related to population and employment density as well as local socio-economic characteristics. The analysis also briefly describes available transit service.

Methodology

The market analysis describes existing conditions, including changes observed between 2000 and 2012. The analysis considers transit demand from the perspective of 1) development patterns; and 2) demographic characteristics that tend to be associated with higher use or reliance on public transportation services. For purposes of this study, transit demand related to development patterns is based on population and employment density. Demographic characteristics related to transit reliance are measured based on the combined number of low-income individuals, persons with disabilities, older adults (65+), and zero vehicle households. Data is reported for three years: 2000, 2007, and 2012, reflecting the 2000 U.S Census and the 2007 and 2012 American Community Survey datasets. The maps are all based on 2012 data.

Data on the available transit services was drawn from several sources, including the Status of Transit database published by ODOT. It also includes information collected by the Nelson\Nygaard team as part of their site visits and interviews with each of Ohio’s 62 transit agencies. In addition, some data was collected through web-searches and follow up telephone interviews with transit administrators.

Cleveland Region Counties

Click on any one of the following counties to get to the individual market analysis:

- Ashland County
- Ashtabula County
- Columbiana County
- Cuyahoga County
- Erie County
- Geauga County
- Huron County
- Lake County
- Lorain County
- Mahoning County
- Medina County
- Portage County
- Richland County
- Stark County
- Summit County
- Trumbull County
- Tuscarawas County
- Wayne County

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ASHLAND COUNTY

Overview

— Ashland County is located in north central Ohio, southwest of Cleveland.
— Ashland is the largest city in the county and is part of the Ashland Micropolitan Statistical Area.
— The nearest metropolitan area is Cleveland, which is about 60 miles northeast of Ashland.

Factors Influencing Transit Reliance and Demand

Employment, Demographics and Socio-Economic Characteristics

— Ashland County's population has remained stable since 2000, increasing by 547 people, or about 1%.
— The number of youth in Ashland County has decreased by 661 people, and youth now represent a smaller percentage of the population than in 2000.
— The number of older adults aged 65+ increased by over 16% between 2000 and 2012. The percentage of the population in this age category increased from 13.9% in 2000 to 16.1% in 2012.
— A drastically greater number and percentage of the population have low incomes today than in 2000, though more households own a car. Overall, the county is less well-off today than in the past decade and is slightly less well-off than an average Ohio county.

Figure 1 Selected County Demographic and Socio-Economic Characteristics: Historical Trends

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</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>52,523</td>
<td>54,435</td>
<td>53,070</td>
<td>547</td>
</tr>
<tr>
<td>Youths (5-17)</td>
<td>10,036</td>
<td>9,518</td>
<td>9,375</td>
<td>-661 (1.4)</td>
</tr>
<tr>
<td>Older Adults (65+)</td>
<td>7,320</td>
<td>7,807</td>
<td>8,521</td>
<td>1,201 (2.1)</td>
</tr>
<tr>
<td>Persons with Disabilities^</td>
<td>7,766</td>
<td>6,571</td>
<td>7,114</td>
<td>-</td>
</tr>
<tr>
<td>Low-Income Individuals†</td>
<td>8,264</td>
<td>11,689</td>
<td>14,297</td>
<td>6,033 (11.7)</td>
</tr>
<tr>
<td>Zero-Vehicle Households‡</td>
<td>1,332</td>
<td>1,434</td>
<td>1,302</td>
<td>30 (0.4)</td>
</tr>
</tbody>
</table>

Sources: 2000 Census, SF1 100% data & SF3 sample data; 2007 ACS 3-year estimates; 2012 ACS 3-year estimates

*2007 ACS estimates are weighted based on 2000 Census 100% data whereas 2012 ACS estimates are weighted based on 2010 Census 100% data. The Census asks users to use caution when making comparisons across a decennial census year and warns that the estimates may not be strictly comparable.

^The disability questions asked on the 2000 Census and ACS forms through 2007 were substantially different from the questions asked on the 2008 ACS form and later (including the 2010 Census). Therefore, one cannot say with certainty what changes occurred to the prevalence of disabilities between 2000 and 2012.

†Defined as all family members if the family income is less than 1.5 times the poverty threshold set by the federal government.

‡Note that the data reported here are households and the percentage = (zero-vehicle households)/(total households in the county).
It is impossible to conclude with certainty the historical trend of the prevalence of people with disabilities. However, accounting for sampling error and considering results from 2000 and 2007, in all likelihood at least 13% of the current population in Ashland County has some disability.

According to 2011 Longitudinal Employer-Household Dynamics (LEHD) data, Ashland County had 17,018 jobs within the county. In that same year, 14,640 residents of Ashland County were employed outside of the county, which accounts for 62.8% of residents who are employed.

Based on a combined measure of low-income individuals, zero-vehicle households, persons with disabilities, and adults aged 65 and over, the areas most reliant on transit within Ashland County are the city of Ashland and Polk (see Figure 2).

Other areas showing a moderate to high transit reliance include areas to the south and southwest of Ashland. Some areas in northern Ashland County also show moderate transit reliance.

Mansfield, located to the southwest about 5 to 7 miles of Ashland, shows high to very high reliance on transit. The southwestern corner of Medina County, which borders Ashland County, also shows high transit reliance.

Transit Supportive Development Patterns

Ashland County is primarily low in density except around the city of Ashland. Of the roughly 53,100 people in the county, 38.1% live in areas of higher density and 61.9% are in areas of lower density (based on 2010 Census block data).

Ashland and Loudonville are the only areas with population and employment densities that, based on national evidence, suggest an ability to support transit service with a frequency of every 60 minutes or less (see Figure 3). Densities indicate that demand response and deviated fixed-route service (orange on Figure 3) are most appropriate in Ashland County.

Similar to the results above, areas with transit supportive densities outside of the county are in and around the city of Mansfield.

Existing Transit Services

County-wide demand response service is provided through Ashland Public Transit. It is a curb-to-curb service open to the general public. Ashland Public Transit also offers transportation outside of the county up to a 100-mile radius from downtown Ashland.

Ashland Public Transit operating characteristics:
- Monday – Friday, 6:00 AM – 9:00 PM
- Saturday, 8:00 AM – 9:00 PM
- Offers regular subscribed trips as well as same-day trips

Local funding is provided through general funds and contracts with various agencies, including Job and Family Services.

2012 Transit Riders per Capita\(^1\): 0.51
2012 Operating Expenditure per Capita\(^1\): $10.64

\(^1\) Based on 2012 ACS estimates for Ashland County (53,070).
Opportunities, Challenges, and Needs

- Ashland County is primarily rural. The city of Ashland and the village of Loudonville are the only areas that show transit-supportive densities within the county.
- Ashland County Transit does a good job meeting the transportation needs of the county with the resources they have. Though the total population has stayed relatively stable, the number of older adults and low-income individuals continues to increase, and the county would like to add more medical and grocery trips.
- Ashland County Transit would like to increase the awareness of transit service among the general public, but limited funding makes it difficult to pursue advertising.
- Being a rural county with somewhat limited services and retail, and with nearly 63% of residents employed outside of the county, trips to Mansfield (west) and Wooster (east) are frequent.
Figure 2: Demographic and Socio-Economic Characteristics Affecting Reliance on Transit Service

Source: 2008 - 2012 5-year ACS Estimates; TIGER/Line Files; ESRI; ODOT
Figure 3 Development Patterns (Population and Employment Density) Influencing Transit Service Design

Source: 2011 LEHD; 2010 Census SF1 100% data; TIGER/Line Files; ESRI; ODOT

Note: The “defined transit service area” indicates the official boundaries of the agency service area and does not necessarily indicate the coverage of the current routes in operation.
ASHTABULA COUNTY

Overview

— Ashtabula County is located in the northeastern corner of Ohio on Lake Erie, bordering Pennsylvania.
— Ashtabula is the largest city in the county and is part of the Ashtabula Metropolitan Statistical Area.
— The nearest metropolitan area is Cleveland, located 55 miles west of Ashtabula.

Factors Influencing Transit Reliance and Demand

Employment, Demographics and Socio-Economic Characteristics

— Ashtabula County’s population has decreased by 1,761 people since 2000.
— The number of youth in Ashtabula County has decreased by more than 2,750 people. Youth make up 17.2% of the current population, down from 19.6% in 2000.
— The number of older adults aged 65+ has increased slightly over the past 12 years. The percentage of the population in this age category has grown from 14.7% in 2000 to 15.9% in 2012.
— A greater percentage of people have low-incomes today than in 2000, and fewer people own cars. The percentage of low income individuals in the County (30.4%) is greater than the Ohio county average of 24.8%.

Figure 1 Selected County Demographic and Socio-Economic Characteristics: Historical Trends

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<tr>
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</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>102,728</td>
<td>101,577</td>
<td>100,967</td>
<td>-1,761</td>
</tr>
<tr>
<td>Youths (5-17)</td>
<td>20,140</td>
<td>18,231</td>
<td>17,386</td>
<td>-2,754</td>
</tr>
<tr>
<td>Older Adults (65+)</td>
<td>15,051</td>
<td>14,745</td>
<td>16,042</td>
<td>991</td>
</tr>
<tr>
<td>Persons with Disabilities</td>
<td>19,463</td>
<td>18,206</td>
<td>14,162</td>
<td>-5,001</td>
</tr>
<tr>
<td>Low-Income Individuals</td>
<td>22,492</td>
<td>28,442</td>
<td>29,578</td>
<td>7,086</td>
</tr>
<tr>
<td>Zero-Vehicle Households</td>
<td>2,923</td>
<td>3,145</td>
<td>3,170</td>
<td>247</td>
</tr>
</tbody>
</table>

Sources: 2000 Census, SF1 100% data & SF3 sample data; 2007 ACS 3-year estimates; 2012 ACS 3-year estimates
*2007 ACS estimates are weighted based on 2000 Census 100% data whereas 2012 ACS estimates are weighted based on 2010 Census 100% data. The Census asks users to use caution when making comparisons across a decennial census year and warns that the estimates may not be strictly comparable.

The disability questions asked on the 2000 Census and ACS forms through 2007 were substantially different from the questions asked on the 2008 ACS form and later (including the 2010 Census). Therefore, one cannot say with certainty what changes occurred to the prevalence of disabilities between 2000 and 2012.

Defined as all family members if the family income is less than 1.5 times the poverty threshold set by the federal government.

Note that the data reported here are households and the percentage = (zero-vehicle households)/(total households in the county).
It is difficult to accurately conclude the historical demographics of people with disabilities. However, accounting for sampling errors and considering the 2000 and 2007 census, it is estimated at least 14% of the current population in Ashtabula County has some disability.

According to 2011 Longitudinal Employer-Household Dynamics (LEHD) data, there were 29,603 jobs within the county. In that same year; 18,250 residents of Ashtabula County were employed outside of the county, which accounts for 47.8% of employed residents.

Based on a combined measure of low-income individuals, zero-vehicle households, persons with disabilities, and adults aged 65 and over, the areas with the highest transit reliance within Ashtabula County are the cities of Ashtabula and Jefferson (see Figure 2).

Others areas showing a moderate to high transit reliance include the cities of Conneaut and Geneva.

The Village of Madison and the northwest corner of Trumbull County show moderate to high transit reliance.

Transit Supportive Development Patterns

Ashtabula County shows higher population density primarily around City of Ashtabula. There are smaller pockets of medium population density communities, including the cities of Jefferson, Edgewood, Geneva, and Conneaut. The remainder of the county is lower in population density. Of the approximately 101,000 people in the county, 53.6% live in areas of higher density and 46.4% are in areas of lower density (based on 2010 Census block data).

The cities of Ashtabula, Jefferson, Geneva, and Conneaut are the only areas with population and employment densities that, based on national evidence, suggest an ability to support transit service with a frequency of every 60 minutes or less (see Figure 3).

Few areas outside the cities mentioned above indicate a demand for deviated fixed-route (orange on Figure 3) service.

Some areas in adjacent Lake County show demand for deviated fixed-route service.

Existing Transit Services

Deviated fixed-route service is available through the Ashtabula County Transportation System (ACTS) in the city of Ashtabula.

ACTS offer demand response service throughout the county outside of the deviated routes service area. The service is open to the general public.

ACTS operating characteristics:

- Three routes in the city of Ashtabula operate Monday - Saturday, 7:00 AM - 5:00 PM
- Deviation between scheduled stops within a two-block radius from the designed routes
- 60-minute operating frequency on all deviated fixed routes
- Demand response service operates Monday - Friday, 6:00 AM - 7:00 PM
Local funding is provided through senior levy, contracts with agencies, and contributions from City of Ashtabula.

- 2012 Transit Riders per Capita\(^1\): **0.83**
- 2012 Operating Expenditure per Capita\(^1\): **$10.39**

### Opportunities, Challenges, and Needs

- Ashtabula County is a relatively low-income county, with 30% of the population living in low-income households. The overall population is aging and declining.
- In addition to having higher poverty levels that the average Ohio county, Ashtabula County is primarily low-density. The only area with a significant concentration of people or jobs is the City of Ashtabula.
- Ashtabula County is one of the largest in the state geographically at over 700 square miles, requiring long travel distances for county-wide transit service. Transit trips are scheduled on a first come, first served basis. Trips to remote areas of the county require a vehicle for longer periods of time than trips within the City of Ashtabula but may only serve one passenger.
- Cleveland is the nearest major urban area. No regional transit service exists to provide access to the Cleveland area from the county. Connections with Laketran in adjacent Lake County were provided in the past but do not currently exist.
- Deviated fixed-route service provided in the City of Ashtabula by ACTS does not accommodate most work schedules due to limited service hours.
- ACTS is not currently able to accommodate all demand-response trips, which leads to trip denials.

\(^1\) Based on 2012 ACS estimates for Ashtabula County (100,967).
Figure 2  Demographic and Socio-Economic Characteristics Affecting Reliance on Transit Service

Source: 2008 - 2012 5-year ACS Estimates; TIGER/Line Files; ESRI; ODOT
Figure 3 Development Patterns (Population and Employment Density) Influencing Transit Service Design

Source: 2011 LEHD; 2010 Census SF1 100% data; TIGER/Line Files; ESR; ODOT

Note: The "defined transit service area" indicates the official boundaries of the agency service area and does not necessarily indicate the coverage of the current routes in operation.
COLUMBIANA COUNTY

Overview

─ Columbiana County is located along the eastern edge of Ohio, bordering Pennsylvania.
─ Salem is the largest city in the county and is part of the East Liverpool-Salem Micropolitan Statistical Area.
─ The nearest metropolitan area is Pittsburgh, PA, which is located about 70 miles east of Salem.

Factors Influencing Transit Reliance and Demand

Employment, Demographics and Socio-Economic Characteristics

─ Columbiana County's population has decreased by 4.4% since 2000.
─ The number of youth in Columbiana County has decreased by more than 3,000 people. Youth now represents a smaller percentage of the population, a 2% decrease from 2000.
─ The number of older adults aged 65+ has increased since 2000. The percentage of the population in this age category grew from 15.0% in 2000 to 16.9% in 2012.
─ A greater percentage of people have low-incomes today than in 2000, and fewer households have cars. However, in Columbiana County, the increase in low-income individuals occurred in the beginning part of the 2000s rather than after 2007. The county remains slightly less well-off than an average county in Ohio (24.8%).

Figure 1 Selected County Demographic and Socio-Economic Characteristics: Historical Trends

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<tbody>
<tr>
<td>Total Population</td>
<td>112,075</td>
<td>109,192</td>
<td>107,190</td>
<td>-4,885</td>
</tr>
<tr>
<td>Youths (5-17)</td>
<td>20,650 (18.4%)</td>
<td>18,070 (16.5%)</td>
<td>17,390 (16.2%)</td>
<td>-3,260 (-2.2%)</td>
</tr>
<tr>
<td>Older Adults (65+)</td>
<td>16,843 (15.0%)</td>
<td>16,685 (15.3%)</td>
<td>18,131 (16.9%)</td>
<td>1,288 (1.9%)</td>
</tr>
<tr>
<td>Persons with Disabilities^</td>
<td>19,788 (19.4%)</td>
<td>17,490 (17.7%)</td>
<td>17,336 (16.7%)</td>
<td>-152 (-0.8%)</td>
</tr>
<tr>
<td>Low-Income Individuals†</td>
<td>22,953 (21.2%)</td>
<td>28,472 (27.3%)</td>
<td>28,793 (27.9%)</td>
<td>5,840 (6.7%)</td>
</tr>
<tr>
<td>Zero-Vehicle Households‡</td>
<td>2,978 (6.9%)</td>
<td>2,431 (5.8%)</td>
<td>3,310 (7.8%)</td>
<td>332 (0.9%)</td>
</tr>
</tbody>
</table>

Sources: 2000 Census, SF1 100% data & SF3 sample data; 2007 ACS 3-year estimates; 2012 ACS 3-year estimates
*2007 ACS estimates are weighted based on 2000 Census 100% data whereas 2012 ACS estimates are weighted based on 2010 Census 100% data. The Census asks users to use caution when making comparisons across a decennial census year and warns that the estimates may not be strictly comparable.

^The disability questions asked on the 2000 Census and ACS forms through 2007 were substantially different from the questions asked on the 2008 ACS form and later (including the 2010 Census). Therefore, one cannot say with certainty what changes occurred to the prevalence of disabilities between 2000 and 2012.

†Defined as all family members if the family income is less than 1.5 times the poverty threshold set by the federal government.
‡Note that the data reported here are households and the percentage = (zero-vehicle households)/(total households in the county).
It is impossible to conclude with certainty the historical trend of the prevalence of people with disabilities. However, accounting for sampling error and considering results from 2000 and 2007, in all likelihood at least 16% of the current population in Columbiana County has some disability.

According to 2011 Longitudinal Employer-Household Dynamics (LEHD) data, Columbiana County had 29,389 jobs within the county. In that same year, 27,827 residents of Columbiana County were employed outside of the county, which accounts for 61.5% of residents who are employed.

Based on a combined measure of low-income individuals, zero-vehicle households, persons with disabilities, and adults aged 65 and over, the parts of Columbiana County most reliant on transit are Salem and East Liverpool (see Figure 2).

Other areas showing moderate transit reliance include areas near Lisbon and Columbiana.

Outside of Columbiana County, Alliance and southeastern Stark County show high transit reliance.

Transit Supportive Development Patterns

Columbiana County is a mix of higher density and lower density areas, with most high density around the communities of Salem, Columbiana, Lisbon, East Palestine, and along the Ohio River. Of the 107,200 people in the county, 56.1% live in higher density areas and 43.9% are in lower density areas (based on 2010 Census block data).

East Liverpool, Columbiana, Salem, Lisbon, and Wellsville are the only areas with population and employment densities that, based on national evidence, suggest an ability to support transit service with a frequency of every 30 minutes or less (see Figure 3).

Outside of the county, Alliance demonstrates transit supportive densities.

Existing Transit Services

Demand response transit service is available through the Community Action Rural Transit System (CARTS) for all of Columbiana County and adjacent counties.

CARTS operating characteristics:

- Demand response service Monday – Friday, 5:30 AM – 6:00 PM throughout the county, and Saturday, 8:30 AM – 4:00 PM in the Salem and East Liverpool areas
- CARTS is administrated by the Community Action Agency of Columbiana County, Inc
- 2012 Transit Riders per Capita: 0.82
- 2012 Operating Expenditure per Capita: $19.65

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1 Based on 2012 ACS estimates for Columbiana County (107,190).
Opportunities, Challenges, and Needs

- In addition to having higher poverty levels, Columbiana County is largely low-density and has five communities with significant concentrations of people or jobs: Salem, East Palestine, East Liverpool, Lisbon, and Columbiana.

- The low-density nature of Columbiana County means that most residents will need to travel by vehicle to reach employment, services, shopping, and other personal activities. Data shows, for example, that nearly 62% of the people employed and living in Columbiana County work outside of the county. Serving this rural population that is both aging and less well-off is difficult.

- Columbiana County is also challenged because its two largest communities – Salem and East Liverpool – are at the southern and northern end of the county. It makes deploying vehicles difficult and also means some people want to travel between the two cities, which is a lengthy and time consuming trip.

- Columbiana County is already one of the largest rural transit service providers, and demand for their service has increased annually every year for the past several years. Ridership has doubled in the last three years.

- Public transportation services in Columbiana County are coordinated across a multitude of agencies and programs, including general public transit, Medicaid specialized school transportation, area agencies on aging, nursing homes, and adult day care facilities. Medicaid is a particularly important partner and accounts for nearly a third of agency revenues. Because the transportation program is jointly funded, no local taxes or levies are required to support the service. It also means that people may share a ride with people traveling to medical or human service programs.

- The coordinated service structure is a key asset of the CARTS program. By not relying on local levies or taxes, CARTS is able to better manage agency resources. However, they are not able to meet current demand and would expand service if resources were available.

- Given the age profile of the community, CARTS expects that the demand for service will continue to increase and, as the older adults living in Columbiana County age, there will be more people with mobility challenges in the future. They need to develop ways of transporting people who need more attention and care in a way that is efficient and cost effective.

- CARTS is also interested in better coordination with the neighboring counties, especially Mahoning County and Youngstown. Taking people to the regional medical center and human service centers in Youngstown is important but difficult for CARTS to do efficiently.
Figure 2 Demographic and Socio-Economic Characteristics Affecting Reliance on Transit Service

Source: 2008 - 2012 5-year ACS Estimates; TIGER/Line Files; ESRI; ODOT
Figure 3 Development Patterns (Population and Employment Density) Influencing Transit Service Design

Potential Transit Service Design:
(based on Pop/Emp Density by Census Block)
- Demand response (> 60 min)
- Deviated fixed-route (30 - 60 min)
- Fixed-route (≤ 30 min)
- Defined transit service area

Source: 2011 LEHD; 2010 Census SF1 100% data; TIGER/Line Files; ESRI; ODOT

Note: The “defined transit service area” indicates the official boundaries of the agency service area and does not necessarily indicate the coverage of the current routes in operation.
CUYAHOGA COUNTY

Overview

— Cuyahoga County is located in northeast Ohio along Lake Erie.
— Cleveland is the largest city in the county, the county seat, and part of the Cleveland-Elyria-Mentor Metropolitan Statistical Area.
— Cleveland is also the second largest city in Ohio after Columbus and is part of the Cleveland-Akron-Canton Combined Statistical Area.

Factors Influencing Transit Reliance and Demand

Employment, Demographics and Socio-Economic Characteristics

— Cuyahoga County’s population decreased by over 120,000, or 8.8%, since 2000. The decline slowed to 3.0% between 2007 and 2012 from 5.9% earlier in the decade.
— The number of youth in Cuyahoga County has decreased by 47,000, an 18.3% decline, and youths now represent a smaller percentage of the population by nearly 2%.
— While the number of older adults aged 65+ decreased over the past 12 years at a rate similar to the overall population, the percentage of the population in this age category remained nearly constant at just above 15%.

Figure 1 Selected County Demographic and Socio-Economic Characteristics: Historical Trends

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<tr>
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</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>1,393,978</td>
<td>1,310,905</td>
<td>1,271,187</td>
<td>-122,791</td>
</tr>
<tr>
<td>Youths (5-17)</td>
<td>256,994</td>
<td>232,513</td>
<td>209,890</td>
<td>-47,104 (-1.9)</td>
</tr>
<tr>
<td>Older Adults (65+)</td>
<td>217,161</td>
<td>198,421</td>
<td>199,199</td>
<td>+17,962 (+0.1)</td>
</tr>
<tr>
<td>Persons with Disabilities*</td>
<td>254,830</td>
<td>207,525</td>
<td>177,375</td>
<td>-77,155 (-30.2)</td>
</tr>
<tr>
<td>Low-Income Individuals†</td>
<td>286,451</td>
<td>311,806</td>
<td>348,329</td>
<td>+61,878 (+7.0)</td>
</tr>
<tr>
<td>Zero-Vehicle Households‡</td>
<td>78,005</td>
<td>70,353</td>
<td>71,926</td>
<td>+1,571 (+0.2)</td>
</tr>
</tbody>
</table>

Sources: 2000 Census, SF1 100% data & SF3 sample data; 2007 ACS 3-year estimates; 2012 ACS 3-year estimates.
*2007 ACS estimates are weighted based on 2000 Census 100% data whereas 2012 ACS estimates are weighted based on 2010 Census 100% data. The Census asks users to use caution when making comparisons across a decennial census year and warns that the estimates may not be strictly comparable.
*The disability questions asked on the 2000 Census and ACS forms through 2007 were substantially different from the questions asked on the 2008 ACS form and later (including the 2010 Census). Therefore, one cannot say with certainty what changes occurred to the prevalence of disabilities between 2000 and 2012.
†Defined as all family members if the family income is less than 1.5 times the poverty threshold set by the federal government.
‡Note that the data reported here are households and the percentage = (zero-vehicle households)/(total households in the county).
A greater percentage of people have low-incomes today than in 2000, though more people own cars. However, the change in the percentage of people with low incomes, at an increase of 7%, is average among all Ohio counties. Overall, the county is somewhat worse off today than in the past decade and remains slightly less well-off than an average county in Ohio (24.8%).

It is impossible to conclude with certainty the historical trend of the prevalence of people with disabilities. However, accounting for sampling error and considering results from 2000 and 2007, in all likelihood at least 14% of the current population in Cuyahoga County has some disability.

According to 2011 Longitudinal Employer-Household Dynamics (LEHD) data, Cuyahoga County had 713,581 jobs within the county. In that same year, 118,913 residents of Cuyahoga County were employed outside of the county, which accounts for 21.5% of residents who are employed.

Based on a combined measure of low-income individuals, zero-vehicle households, persons with disabilities, and adults aged 65 and over, the areas most reliant on transit within Cuyahoga County include (see Figure 2):
- Downtown and most of the city of Cleveland,
- Brooklyn,
- North Olmsted,
- Parma,
- Bedford Heights, and
- Various block groups along the US 20 corridor east of Cleveland.

Transit reliance is high throughout Cuyahoga County. Most communities surrounding Cleveland show at least a few areas of moderate to high transit reliance.

The northeast corner of Lorain County and the southwest corner of Lake County, located to the west and east of Cuyahoga County, respectively, have a moderate to high transit reliance.

Transit Supportive Development Patterns

Cuyahoga County shows significant density throughout most of the county. Low density occurs primarily along the border of the county to the south and east. Of the roughly 1,271,200 people in the county, 99.4% live in areas of higher density and 0.6% are in areas of lower density (based on 2010 Census block data).

The city of Cleveland, particularly in downtown and west to Lakewood, shows consistently high population and employment densities that, based on national evidence, supports transit service at a frequency of every 30 minutes or less (see Figure 3).

Outside of Cleveland, in a roughly 15-mile semi-circular area with downtown Cleveland as the focal point, population and employment densities remain high and show a mix of demand for deviated fixed-route and standard fixed-route services.

Communities outside of Cleveland with a concentration of demand for fixed-route services include Parma, Shaker Heights, and Cleveland Heights.
Euclid and the corridor north along Lake Erie and I-90 also show high demand for transit services. This extends into Lake County and the city of Mentor. Similar demand exists in North Olmsted and Strongsville southwest of Cleveland.

Outside of Cuyahoga and Lake County, the area with the highest transit supportive density is the city of Elyria in Lorain County, though pockets of supportive densities exist in many of the surrounding counties.

Existing Transit Services

- Transit service (fixed-route and paratransit) is available through the Greater Cleveland Regional Transit Authority (GCRTA) in Cuyahoga County.
- GCRTA provides rail service, trolleys, and bus rapid transit (BRT) primarily in downtown Cleveland.
- GCRTA operating characteristics:
  - Fifty-one fixed-routes, including 9 routes that operate 24 hours a day, seven days a week
  - Eleven routes operate on Saturday and Sunday
  - Three of the fixed-routes offer service to public schools with two one-way trips on weekdays
  - Five additional express routes between downtown Cleveland and park-and-ride lots in Cuyahoga County, Monday – Friday, 6:00 AM – 8:30 AM and 3:00 PM – 6:30 PM
  - Three Rapid Transit, 1 heavy rail and 2 light rails with 1 extension line, Monday – Sunday, 3:30 AM – 1:30 AM, operating at a frequency of 15 minutes
  - One Bus Rapid Transit (BRT) service known as the HealthLine operates along Euclid Avenue between downtown and East Cleveland, 24-hour service Monday – Sunday, with a frequency of 8 to 30 minutes
  - Five trolley lines serving downtown Cleveland with destinations at major civic and business centers, hotels, and the casino, Monday – Friday, 5:30 AM – 11:00 PM, and weekend, 10:00 AM – 11:00 PM, with a frequency of 15-minute or better
  - Complementary ADA paratransit service within 5-mile radius between origin and destination or within ¾-mile of their fixed-routes during the same operating times
- Local funding is provided through a one percent county-wide sales tax, contributing 70% of total funding.
- 2012 Transit Riders per Capita: **37.94**
- 2012 Operating Expenditure per Capita: **$175.38**

---

1 Based on 2012 ACS estimates for Cuyahoga County (1,271,187).
Figure 2  Demographic and Socio-Economic Characteristics Affecting Reliance on Transit Service

Source: 2008 - 2012 5-year ACS Estimates; TIGER/Line Files; ESRI; ODOT
Figure 3 Development Patterns (Population and Employment Density) Influencing Transit Service Design

Source: 2011 LEHD; 2010 Census SF1 100% data; TIGER/Line Files; ESRI; ODOT

Note: The “defined transit service area” indicates the official boundaries of the agency service area and does not necessarily indicate the coverage of the current routes in operation.
Opportunities, Challenges, and Needs

- Cuyahoga County and the city of Cleveland have been losing population, though it has slowed in recent years.
- The population decline has impacted demand and funding. Section 5307 funding is decreasing due to population decline. Even if the population in the GCRTA service area stayed the same, the region would lose funding due to growth in other regions of the country. This shifts the balance of FTA funding against the Cleveland region.
- The beginning of the decade saw job and residential sprawl. In more recent years, there has been a slight reversal of that trend with a move of jobs and residents back to the center city. GCRTA would like to harness this trend and be a positive element to this revitalization. There is still a trend for population and job growth in the outer ring suburbs, or more significantly to the surrounding counties, which are outside of the GCRTA service area.
- The largest need for transit is to transport workers to work, with approximately 60% of GCRTA’s trips being work-related. However, the most critical need is serving low-income individuals and persons with disabilities, who have no other viable mobility options other than GCRTA.
- GCRTA is most effective in providing service to downtown from the city of Cleveland and higher density suburban locations. Regional trip demands are hard to meet, and GCRTA would like to take a more regional planning approach.
- GCRTA is unique in Ohio. It is much larger than other large systems, and rail creates some special needs that other systems in Ohio do not have.
- The agency needs to conduct major rail infrastructure rehabilitation and continue to address its ADA station accessibility plan. GCRTA’s current focus remains, as documented in its recent Re: imagine RTA strategic plan, on the existing service area and is not in a position to extend service to un-served areas.
**ERIE COUNTY**

**Overview**

- Erie County is located in northern Ohio along Lake Erie.
- Sandusky is the largest city in the county and is the county seat. Erie County was recently designated a Metropolitan Statistical Area.
- Erie County is about equal distance between Toledo to the west and Cleveland to the east.

**Factors Influencing Transit Reliance and Demand**

**Employment, Demographics and Socio-Economic Characteristics**

- Erie County's population has decreased by just over 2,800 people since 2000, a decline of 3.6%.
- The percentage of youth in Erie County has decreased by 2.2 percentage points, now making up 16.4% of the population.
- The percentage of older adults aged 65+ has increased by a similar margin as the decline in youth. Older adults comprised nearly 18% of the population by 2012.
- Low-income individuals increased by more than 5,000 people. Erie County remains slightly better off than the average Ohio county (22.3% versus 24.8%). Households without a vehicle did not show a significant change.

**Figure 1 Selected County Demographic and Socio-Economic Characteristics: Historical Trends**

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>79,551</td>
<td>77,566</td>
<td>76,700</td>
<td>✅ 2,851</td>
</tr>
<tr>
<td>Youths (5-17)</td>
<td>14,853</td>
<td>12,961</td>
<td>12,609</td>
<td>✅ 2,244 (✅ 2.2)</td>
</tr>
<tr>
<td>Older Adults (65+)</td>
<td>12,383</td>
<td>12,725</td>
<td>13,703</td>
<td>✅ 1,320 (✅ 2.3)</td>
</tr>
<tr>
<td>Persons with Disabilities³</td>
<td>13,022</td>
<td>11,580</td>
<td>11,715</td>
<td>-</td>
</tr>
<tr>
<td>Low-Income Individuals⁠†</td>
<td>11,618</td>
<td>14,154</td>
<td>16,807</td>
<td>✅ 5,189 (✅ 7.4)</td>
</tr>
<tr>
<td>Zero-Vehicle Households²</td>
<td>1,955</td>
<td>2,022</td>
<td>2,018</td>
<td>✅ 63 (✅ 0.2)</td>
</tr>
</tbody>
</table>

Sources: 2000 Census, SF1 100% data & SF3 sample data; 2007 ACS 3-year estimates; 2012 ACS 3-year estimates

*2007 ACS estimates are weighted based on 2000 Census 100% data whereas 2012 ACS estimates are weighted based on 2010 Census 100% data. The Census asks users to use caution when making comparisons across a decennial census year and warns that the estimates may not be strictly comparable.

³The disability questions asked on the 2000 Census and ACS forms through 2007 were substantially different from the questions asked on the 2008 ACS form and later (including the 2010 Census). Therefore, one cannot say with certainty what changes occurred to the prevalence of disabilities between 2000 and 2012.

†Defined as all family members if the family income is less than 1.5 times the poverty threshold set by the federal government.

²Note that the data reported here are households and the percentage = (zero-vehicle households)/(total households in the county).
It is difficult to accurately conclude the historical demographics of people with disabilities. However, accounting for sampling errors and considering the 2000 and 2007 census data, it is estimated that 15% of the current population in Erie County has some level of disability.

According to 2011 Longitudinal Employer-Household Dynamics (LEHD) data, there were 33,934 jobs within the county. In that same year; 19,777 residents of Erie County were employed outside of the county, which accounts for 53.2% of employed residents.

Based on a combined measure of low-income individuals, zero-vehicle households, persons with disabilities, and adults aged 65 and over, the area with the highest population of those reliant on transit is the city of Sandusky (see Figure 2).

Others areas showing a moderate to high transit reliance include the community of Bay Point west of Sandusky and an unincorporated area southeast of Sandusky.

Just east of Erie County, the community of Vermillion in Lorain County shows high transit reliance, while Norwalk to the south of Erie County exhibits moderate transit reliance.

**Transit Supportive Development Patterns**

Erie County shows a much higher population density in the northern part of the county in the city of Sandusky and surrounding areas to the south of Sandusky. Some higher density concentrations along the coast exist, including the city of Huron. Of the estimated 76,700 people in the county, 73.5% live in areas of higher density and 26.5% live in areas of lower density (based on 2010 Census block data).

The cities of Sandusky, Perkins, and Huron are the only areas with population and employment densities that, based on national evidence, suggest an ability to support transit service with a frequency of every 60 minutes or less (see Figure 3).

In Perkins and Huron demand may be met by deviated-fixed-route (orange on Figure 3) rather than standard fixed-route service (red on Figure 3). An exception to this finding is Sandusky, which shows a mix of red and orange service areas.

Outside the county, the communities of Vermillion, Bellevue, and Norwalk exhibit transit supportive densities.

**Existing Transit Services**

Deviated fixed-route transit service and demand response service are available through the Sandusky Transit System (STS). Service is open to the general public.

STS operating characteristics:

- Demand response, county-wide service is open to the general public Monday – Saturday, 6 AM – 10 PM
- SPARC (Sandusky Perkins Area Ride Connection) provides deviated fixed-route transit service to the city of Sandusky and Perkins township
- SPARC’s three deviated fixed -routes operate Monday – Saturday, 6:00 AM – 10:00 PM, and run at a 60-minute frequency
- Deviation from the SPARC routes allowed up to ½-mile with reservations made 24 hours in advance
Local funding is provided by grants from Serving Our Seniors and the City of Sandusky. In 2012 STS transitioned from an urban to rural transit system.

- 2012 Transit Riders per Capita\(^1\): \textbf{2.17}
- 2012 Operating Expenditure per Capita\(^1\): \textbf{$20.37}

\textbf{Opportunities, Challenges, and Needs}

- Erie County has experienced a decline in population with an increase in older adults and individuals with low income.
- Outside the cities of Sandusky and Huron, Erie County is primarily low in population density.
- Erie County transitioned from a rural transit system to an urban one in FY 2012.
- SPARC has been very successful since its inception in 2010, with ridership continuing to increase. Although the service is a deviated fixed route, few people call for deviations, because the city is densely populated and most destinations are within walking distances. Sometimes deviations are accommodated through the demand-response service.
- The city is currently promoting school transportation on SPARC by selling vouchers to Sandusky schools.
- The county has a service-driven economy, fueled by Cedar Point and Kalahari Resorts. During the tourist season, the city experiences an influx of workers who use SPARC (ridership fluctuates from nearly 13,000 in June down to just over 8,000 in December).
- STS is proud of transporting people to work in a cost-effective manner. A round-trip taxi fare from Sandusky to Kalahari Resorts costs $18, or half of a worker’s estimated daily income.
- STS demand response service increased from just serving the cities of Sandusky, Perkins, and Huron to a county-wide service in 2012. STS has documented that many trips are for older adults traveling to Sandusky for errands and services.
- Although transit services are available county-wide, the system receives no county monetary support.
- County-wide service has allowed the local Development Disabilities agency to dispose of its vehicles and book trips through STS.
- Both SPARC and STS are operated by a third-party contractor, which allows the city to expand transit service easily as funding is available, without purchasing vehicles.

\(^1\) Based on 2012 ACS estimates for Erie County (76,700).
Figure 2 Demographic and Socio-Economic Characteristics Affecting Reliance on Transit Service

Source: 2008 - 2012 5-year ACS Estimates; TIGER/Line Files; ESRI; ODOT
Figure 3 Development Patterns (Population and Employment Density) Influencing Transit Service Design

Source: 2011 LEHD; 2010 Census SF1 100% data; TIGER/Line Files; ESRI; ODOT

Note: The "defined transit service area" indicates the official boundaries of the agency service area and does not necessarily indicate the coverage of the current routes in operation.
GEAUGA COUNTY

Overview

- Geauga County is located in northeast Ohio
- Chardon is the largest city in the county and is part of the Cleveland-Elyria-Mentor Metropolitan Statistical Area
- The nearest metropolitan area is Cleveland, located 40 miles east of Chardon

Factors Influencing Transit Reliance and Demand

Employment, Demographics and Socio-Economic Characteristics

- Geauga County’s population has increased by more than 2,500 people since 2000, a 2.8% increase.
- The number of youth in Geauga County has decreased by more than 1,000, and youths now represent a smaller percentage of the population by nearly two percentage points.
- The number of older adults aged 65+ increased over the past 12 years, and the percentage of the population in this age range is just over 16%.
- A greater percentage of people have low incomes today than in 2000, though about the same amount own cars. The county remains significantly wealthier than an average county in Ohio with a percentage of low income individuals of 15.2% in Geauga County compared to 24.8% average.

Figure 1 Selected County Demographic and Socio-Economic Characteristics: Historical Trends

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<tr>
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</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>90,895</td>
<td>94,722</td>
<td>93,465</td>
<td>✨ 2,570</td>
</tr>
<tr>
<td>Youths (5-17)</td>
<td>19,626 (21.6%)</td>
<td>18,071 (19.1%)</td>
<td>18,467 (19.8%)</td>
<td>-1,159 (liğe 1.8)</td>
</tr>
<tr>
<td>Older Adults (65+)</td>
<td>10,878 (12.0%)</td>
<td>13,275 (14.0%)</td>
<td>15,046 (16.1%)</td>
<td>✨ 4,168 (eği 4.1)</td>
</tr>
<tr>
<td>Persons with Disabilities^</td>
<td>11,426 (13.6%)</td>
<td>10,943 (12.4%)</td>
<td>9,496 (10.2%)</td>
<td>✨ -</td>
</tr>
<tr>
<td>Low-Income Individuals†</td>
<td>8,856 (9.8%)</td>
<td>11,058 (11.8%)</td>
<td>14,092 (15.2%)</td>
<td>✨ 5,236 (liğe 5.4)</td>
</tr>
<tr>
<td>Zero-Vehicle Households‡</td>
<td>2,182 (6.9%)</td>
<td>2,007 (6.1%)</td>
<td>2,397 (6.9%)</td>
<td>✨ 215 (0.0)</td>
</tr>
</tbody>
</table>

Sources: 2000 Census, SF1 100% data & SF3 sample data; 2007 ACS 3-year estimates; 2012 ACS 3-year estimates
*2007 ACS estimates are weighted based on 2000 Census 100% data whereas 2012 ACS estimates are weighted based on 2010 Census 100% data. The Census asks users to use caution when making comparisons across a decennial census year and warns that the estimates may not be strictly comparable.
^The disability questions asked on the 2000 Census and ACS forms through 2007 were substantially different from the questions asked on the 2008 ACS form and later (including the 2010 Census). Therefore, one cannot say with certainty what changes occurred to the prevalence of disabilities between 2000 and 2012.
†Defined as all family members if the family income is less than 1.5 times the poverty threshold set by the federal government.
‡Note that the data reported here are households and the percentage = (zero-vehicle households)/(total households in the county).
It is impossible to conclude with certainty the historical trend of the prevalence of people with disabilities. However, accounting for sampling error and considering results from 2000 and 2007, in all likelihood at least 10% of the current population in Geauga County has some disability.

According to 2011 Longitudinal Employer-Household Dynamics (LEHD) data, Geauga County had 29,779 jobs within the county. In that same year, 31,232 residents of Geauga County were employed outside of the county, which accounts for 74.1% of residents who are employed.

Based on a combined measure of low-income individuals, zero-vehicle households, persons with disabilities, and adults aged 65 and over, the areas most reliant on transit within Geauga County are along the eastern border (see Figure 2).

Others areas showing a moderate transit reliance include north and south of Chardon.

Numerous locations in adjacent Lake County and Cuyahoga County show high to very high transit reliance, including areas around Euclid, Cleveland, and Painesville.

Transit Supportive Development Patterns

Geauga County is primarily consisted of very low density areas. Townships of Chardon and Middlefield show slightly higher density than the rest of the county. Of the roughly 93,500 people in the county, 36.0% live in areas of higher density and 64.0% are in areas of lower density (based on 2010 Census block data).

Geauga County has minimal population and employment densities with a small population center located in Chardon (see Figure 3).

Many of the areas that indicate a demand for transit service suggest that deviated-fixed-route (orange on Figure 3) or demand response service is appropriate.

Similar to the results above, areas with transit supportive densities outside of the county are along located in Lake and Cuyahoga counties.

Existing Transit Services

Demand response transit service is available countywide through Geauga County Transit (GCT). It is a curb-to-curb service open to the general public. Out-of-county trips are available for double the regular fare.

GCT operating characteristics:

- Monday – Friday, 6:00 AM – 9:00 PM
- Advance reservations are preferred but accommodates same-day trips depending on the availability

Local funding is mainly provided through contracts with senior centers and grants.

2012 Transit Riders per Capita\(^1\): \(0.53\)

2012 Operating Expenditure per Capita\(^1\): \(12.51\)

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\(^1\) Based on 2012 ACS estimates for Geauga County (93,465).
Opportunities, Challenges, and Needs

- Major supporters of Geauga County Transit (GCT) include local human services agencies. Many riders are seniors, but trip purposes are not restricted—trips can be for anything but are often for local medical appointments and grocery shopping.

- GCT has seen a ridership increase in the last five years, but they have no funding to expand service. The senior population is growing in the area and has increased by almost 40% since 2000. Demand usually outstrips supply, and keeping up with the day-to-day demands can be a challenge.

- GCT has a $400,000 contract (out of the total $1.4 million budget) with local senior centers to provide service. This money counts as a local match, but not much local funding exists otherwise.

- County commissioners have the mentality that the people in the county are “taxed out.” Until transit becomes important to a majority of the population, asking for more money is not an option in their perspective.

- Personnel and benefits are the largest expenditures, though the cost of doing business for everything has gone up.

- GCT does not do much marketing because they are scared to; they are already not meeting demand that exists. Local groups can be very critical of GCT for not meeting the existing needs.

- With more funding, GCT would put more buses on the road to meet the need. They would look closely at hours of service, particularly at peak periods where denials are taking place. At least another one or two buses per day are needed.
Figure 2 Demographic and Socio-Economic Characteristics Affecting Reliance on Transit Service

Source: 2008 - 2012 5-year ACS Estimates; TIGER/Line Files; ESRI; ODOT
Figure 3 Development Patterns (Population and Employment Density) Influencing Transit Service Design

Source: 2011 LEHD; 2010 Census SF1 100% data; TIGER/Line Files; ESRI; ODOT

Note: The “defined transit service area” indicates the official boundaries of the agency service area and does not necessarily indicate the coverage of the current routes in operation.
HURON COUNTY

Overview

— Huron County is located in north central Ohio.
— Norwalk is the largest city in the county and is also the county seat.
— Huron County is part of the Norwalk Metropolitan Statistical Area.
— Huron County sits equidistant between Toledo (70 miles west) and Cleveland (70 miles east).

Factors Influencing Transit Reliance and Demand

Employment, Demographics and Socio-Economic Characteristics

— Huron County’s population has remained very stable over the past 12 years, declining by just 66 people.
— Youth made up a similar percentage of the population in 2012 as in 2000, about 19-20%, though there has been a small decline.
— The percentage of older adults has increased by the same number (1.5%) that youth has decreased.
— A greater percentage of people have low-incomes today than in 2000, and slightly fewer people own cars. Low income individuals now make up 23.8% of the county population, which is slightly lower than the average Ohio county with 24.8%.

Figure 1 Selected County Demographic and Socio-Economic Characteristics: Historical Trends

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</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>59,487</td>
<td>59,871</td>
<td>59,421</td>
<td>†66</td>
</tr>
<tr>
<td>Youths (5-17)</td>
<td>12,368</td>
<td>(20.8%)</td>
<td>11,703</td>
<td>(19.5%)</td>
</tr>
<tr>
<td>Older Adults (65+)</td>
<td>7,354</td>
<td>(12.4%)</td>
<td>7,589</td>
<td>(12.7%)</td>
</tr>
<tr>
<td>Persons with Disabilities^</td>
<td>9,637</td>
<td>(17.7%)</td>
<td>8,097</td>
<td>(14.6%)</td>
</tr>
<tr>
<td>Low-Income Individuals†</td>
<td>9,778</td>
<td>(16.7%)</td>
<td>12,528</td>
<td>(21.2%)</td>
</tr>
<tr>
<td>Zero-Vehicle Households‡</td>
<td>1,247</td>
<td>(5.6%)</td>
<td>1,115</td>
<td>(4.8%)</td>
</tr>
</tbody>
</table>

Sources: 2000 Census, SF1 100% data & SF3 sample data; 2007 ACS 3-year estimates; 2012 ACS 3-year estimates

*2007 ACS estimates are weighted based on 2000 Census 100% data whereas 2012 ACS estimates are weighted based on 2010 Census 100% data. The Census asks users to use caution when making comparisons across a decennial census year and warns that the estimates may not be strictly comparable.

^The disability questions asked on the 2000 Census and ACS forms through 2007 were substantially different from the questions asked on the 2008 ACS form and later (including the 2010 Census). Therefore, one cannot say with certainty what changes occurred to the prevalence of disabilities between 2000 and 2012.

†Defined as all family members if the family income is less than 1.5 times the poverty threshold set by the federal government.

‡Note that the data reported here are households and the percentage = (zero-vehicle households)/(total households in the county).
It is impossible to conclude with certainty the historical trend of the prevalence of people with disabilities. However, accounting for sampling error and considering results from 2000 and 2007, in all likelihood at least 13% of the current population in Huron County has some disability.

According to 2011 Longitudinal Employer-Household Dynamics (LEHD) data, Huron County had 20,721 jobs within the county. In that same year, 13,444 residents of Huron County were employed outside of the county, which accounts for 55.8% of residents who are employed.

Based on a combined measure of low-income individuals, zero-vehicle households, persons with disabilities, and adults aged 65 and over, the areas with moderate-high transit reliance are Norwalk and Willard (see Figure 2).

Other areas in the county showing moderate transit reliance include the northeast, southeast, and southwest corners of the county.

Outside Huron County, there are areas of moderate transit reliance but no clusters of high reliance.

Transit Supportive Development Patterns

Huron County shows slightly higher density in Norwalk, Willard, and Bellevue. The remainder of the county is low density. Of the roughly 59,400 people in the county, 49.7% live in areas of higher density and 50.3% are in areas of lower density (based on 2010 Census block data).

Norwalk and Willard are the only areas with population and employment densities that, based on national evidence, suggest an ability to support transit service with a frequency of every 60 minutes or less (see Figure 3). Bellevue, at the northwest corner of the county, can support transit but presents challenges to serve because the community straddles multiple counties.

Many of the areas that indicate a demand for transit service suggest that deviated-fixed-route (orange on Figure 3) service may be more appropriate than standard fixed-route (red on Figure 3) services.

Areas with transit supportive densities outside of the county include Oberlin to the east in Lorain County and Clyde to the west in Sandusky County.

Existing Transit Services

Huron County Transit (HCT) offers demand response service throughout Huron County and up to 50 miles outside of the county upon early request. The service is open to the general public.

Huron County Transit operating characteristics:

- In-county service Monday – Friday, 7:00 AM – 6:30 PM
- Special medical trips to Cleveland, Elyria, Akron, Toledo and Mansfield, Monday – Friday, 8:00 AM – 3:00 PM
- Operated by Senior Enrichment Services

Local funding is provided through contracts and the County General Fund.
2012 Transit Riders per Capita: **0.32**
2012 Operating Expenditure per Capita: **$5.76**

**Opportunities, Challenges, and Needs**

- HCT is operated by the same agency (Services for Aging) that operates the senior transportation services in the county, but in a separate parallel program. While HCT has a fare, the senior program operates with donations and is supported by the senior tax levy.
- HCT is a separate entity serving the general public and the overflow of senior trips that cannot be accommodated on the senior transportation program. HCT also transports seniors who need to go outside the county.
- The customer base for HCT includes low income, young families, some school children, Department of Job and Family Services (DJFS) clients and work trips, recovery counseling youth, and out-of-county medical appointments to Cleveland and Toledo. Some of the long distance medical trips to Cleveland or Toledo are made by customers who have vehicles but choose to ride since it is cheaper and more convenient.
- The DJFS simply buys tickets for their clients as opposed to its prior method of contracting for service. This approach has presented a challenge to HCT as it shifts the cost burden onto the county.
- There is high unemployment in the county and young people are leaving the county. The county population is decreasing and aging slightly, so the elderly population is an increasing share of the ridership.
- Ridership is down because of unemployment and the aging population; seniors tend to shift to the donation-based senior transportation service.
- HCT service has always been demand response, though the agency would like to experiment with a deviating route.
- Transportation to employment and to medical appointments for those under 60 years old are critically needed.

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1 Based on 2012 ACS estimates for Huron County (59,421).
Figure 2 Demographic and Socio-Economic Characteristics Affecting the Reliance on Transit Service

Source: 2008 - 2012 5-year ACS Estimates; TIGER/Line Files; ESRI; ODOT
Figure 3 Development Patterns (Population and Employment Density) Influencing Transit Service Design

Source: 2011 LEHD; 2010 Census SF1 100% data; TIGER/Line Files; ESRI; ODOT

Note: The “defined transit service area” indicates the official boundaries of the agency service area and does not necessarily indicate the coverage of the current routes in operation.
LAKE COUNTY

Overview

— Lake County is in northern Ohio on Lake Erie.
— Mentor is the largest city in the county, and the entire county is part of the Cleveland-Elyria-Mentor Metropolitan Statistical Area.
— The nearest metropolitan area is Cleveland, located 25 miles west of Mentor.

Factors Influencing Transit Reliance and Demand

Employment, Demographics and Socio-Economic Characteristics

— Lake County's population has increased by more than 2,300 people since 2000.
— The number of youth in Lake County has decreased by 3,222, and youth now represent a smaller percentage of the population by 1.6 percentage points.
— The number of older adults has increased by more than 6,000 since 2000 and this group makes up nearly 17% of the total population today. This is 2.5 percentage points higher than in 2000.
— The number of low-income individuals increased drastically, by nearly 16,000, but there was not as drastic of an increase in the percentage of the population. In addition, on average, Lake County is much wealthier than the average Ohio county. Just 16.6% of the county’s individuals are low income, while on average for Ohio the proportion is 24.8%. Zero-vehicle households increased somewhat, as well.

Figure 1 Selected County Demographic and Socio-Economic Characteristics: Historical Trends

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>227,511</td>
<td>232,722</td>
<td>229,836</td>
<td>2,325</td>
</tr>
<tr>
<td>Youths (5-17)</td>
<td>41,130 (18.1%)</td>
<td>39,557 (17.0%)</td>
<td>37,908 (16.5%)</td>
<td>-2,222 (-1.6)</td>
</tr>
<tr>
<td>Older Adults (65+)</td>
<td>32,044 (14.1%)</td>
<td>34,137 (14.7%)</td>
<td>38,065 (16.6%)</td>
<td>6,021 (+2.5)</td>
</tr>
<tr>
<td>Persons with Disabilities^</td>
<td>33,599 (15.9%)</td>
<td>30,278 (13.9%)</td>
<td>24,932 (10.9%)</td>
<td>-</td>
</tr>
<tr>
<td>Low-Income Individuals†</td>
<td>21,776 (9.7%)</td>
<td>29,503 (12.8%)</td>
<td>37,679 (16.6%)</td>
<td>15,903 (+6.9)</td>
</tr>
<tr>
<td>Zero-Vehicle Households‡</td>
<td>4,300 (4.8%)</td>
<td>4,340 (4.7%)</td>
<td>5,731 (6.1%)</td>
<td>1,431 (+1.3)</td>
</tr>
</tbody>
</table>

Sources: 2000 Census, SF1 100% data & SF3 sample data; 2007 ACS 3-year estimates; 2012 ACS 3-year estimates

*2007 ACS estimates are weighted based on 2000 Census 100% data whereas 2012 ACS estimates are weighted based on 2010 Census 100% data. The Census asks users to use caution when making comparisons across a decennial census year and warns that the estimates may not be strictly comparable.

^The disability questions asked on the 2000 Census and ACS forms through 2007 were substantially different from the questions asked on the 2008 ACS form and later (including the 2010 Census). Therefore, one cannot say with certainty what changes occurred to the prevalence of disabilities between 2000 and 2012.

†Defined as all family members if the family income is less than 1.5 times the poverty threshold set by the federal government.

‡Note that the data reported here are households and the percentage = (zero-vehicle households)/(total households in the county).
— It is impossible to conclude with certainty the historical trend of the prevalence of people with disabilities. However, accounting for sampling error and considering results from 2000 and 2007, in all likelihood nearly 10% of the current population in Lake County has some disability.

— According to 2011 Longitudinal Employer-Household Dynamics (LEHD) data, Lake County had 91,895 jobs within the county. In that same year, 61,133 residents of Lake County were employed outside of the county, which accounts for 54.4% of residents who are employed.

— Based on a combined measure of low-income individuals, zero-vehicle households, persons with disabilities, and adults aged 65 and over, the area most reliant on transit within Lake County is Painesville, which shows high reliance (see Figure 2).

— Others areas showing moderate transit reliance include areas around Mentor and Painesville as well as certain parts of the far eastern and far western areas of the county.

— Areas outside of Lake County that show high transit reliance include parts of northeastern Cuyahoga County (greater Cleveland) and Geneva in Ashtabula County.

Transit Supportive Development Patterns

— The northern half of the Lake County consists of high density areas, especially around Painesville, Mentor, Willoughby, and Wickliffe. Areas south of Route 85 primarily have low density. Of the roughly 229,800 people in the county, 93.5% live in areas of higher density and 6.5% are in areas of lower density (based on 2010 Census block data).

— Parts of Mentor, Painesville, Willoughby, Mentor-on-the-Lake, and Wickliffe are the only areas with population and employment densities that, based on national evidence, suggest an ability to support transit service with a frequency of every 60 minutes or less (see Figure 3).

— Mentor-On-The-Lake, Eastlake, and Willowick show demand for deviated-fixed-route (orange on Figure 3) service. Areas around Mentor, Painesville, Willoughby, and Wickliffe show a variable mix of deviated fixed route and fixed route demand (red on Figure 3).

— Outside of Lake County, many areas throughout Cleveland, Cleveland Heights, and Euclid show demand for transit.

Existing Transit Services

— Transit service (fixed-route and paratransit) is available through Laketran in the northern half of the county.

— Laketran offers demand response service throughout the county and to limited medical facilities in Cleveland. The service is open to the general public.

— Laketran operating characteristics:
  ✓ Six local routes Monday – Friday, 6:00 AM – 8:00 PM, operating at 60-minute frequency
  ✓ Five express routes to downtown Cleveland from multiple park-n-ride lots in Lake County, Monday – Friday, 5:30 AM – 6:30 PM
Complementary ADA paratransit service within ¾-mile and during the same operating times of their fixed-routes

County-wide demand response service, Monday - Friday, 6:00 AM – 8:00 PM

Out-of-county demand response service to major medical facilities in Cuyahoga County, Monday – Friday, 8:00 AM – 4:00 PM

– The primary source of funding is a 0.25% county sales tax, which accounts for 60% of Laketran’s operating budget.

– 2012 Transit Riders per Capita\(^1\): 3.11

– 2012 Operating Expenditure per Capita\(^1\): $49.77

**Opportunities, Challenges, and Needs**

– Laketran receives 60% of its funding from a local sales tax. This was a growing source of revenue from 1988 to 2007 and then took a nosedive in 2008. Laketran was proactive about creating a financial recovery plan very early on. In July 2009, they cut 11% of their service, including elimination of weeknight, Saturday, and holiday service.

– Laketran has a partnership with local colleges. They allow Laketran to use land for park-and-ride lots, and there is a U-pass partnership that allows students ride for free (about 60,000 trips per year).

– Laketran has noted some changing needs in the community. Students and service industry workers need later night service. Most fixed-route riders are in the food service industry. On the other hand, the population is aging. The elderly population is projected to be one in three in the next 20 years.

– Laketran will travel outside the county for trips to the VA and Cleveland Clinic (they charge a double fare for this service). New hospitals in the area have been built without transit access despite healthcare being the backbone of economic development in the county.

– Real-time passenger information system at Great Lakes Mall and other key locations such as park-and-ride lots would be useful.

\(^1\) Based on 2012 ACS estimates for Lake County (229,836).
Figure 2 Demographic and Socio-Economic Characteristics Affecting Reliance on Transit Service

Source: 2008 - 2012 5-year ACS Estimates; TIGER/Line Files; ESRI; ODOT
Figure 3 Development Patterns (Population and Employment Density) Influencing Transit Service Design

Source: 2011 LEHD; 2010 Census SF1 100% data; TIGER/Line Files; ESRI; ODOT

Note: The “defined transit service area” indicates the official boundaries of the agency service area and does not necessarily indicate the coverage of the current routes in operation.
LORAIN COUNTY

Overview

— Lorain County sits along the northern boundary of the state, along Lake Erie.
— Lorain is the largest city in the county and the county seat is Elyria. The county is part of the Cleveland-Elyria-Mentor Metropolitan Statistical Area.
— The nearest metropolitan area is Cleveland, which is located 40 miles east of Lorain.

Factors Influencing Transit Reliance and Demand

Employment, Demographics and Socio-Economic Characteristics

— Lorain County’s population increased sharply between 2000 and 2007, and then continued to grow at a slower pace through 2012. Total population increased by 6% since 2000.
— The number of youth in Lorain County has decreased by more than 1,600, and youth now represent 1.6% less of the population than it did previously.
— Older adults aged 65+ increased by nearly 9,000, or 2.3%. Older adults now make up nearly 15% of the population.
— The low-income population increased 57% from 2000 to 2012, by more than 24,200 individuals. During the same time period, zero-vehicle households remained steady.

Figure 1 Selected County Demographic and Socio-Economic Characteristics: Historical Trends

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<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>284,664</td>
<td>300,659</td>
<td>301,611</td>
<td>↑ 16,947</td>
</tr>
<tr>
<td>Youths (5-17)</td>
<td>54,816 (19.3%)</td>
<td>55,186 (18.4%)</td>
<td>53,201 (17.6%)</td>
<td>↓ 1,615 (↓1.6)</td>
</tr>
<tr>
<td>Older Adults (65+)</td>
<td>35,583 (12.5%)</td>
<td>39,222 (13.0%)</td>
<td>44,580 (14.8%)</td>
<td>↑ 8,997 (↑2.3)</td>
</tr>
<tr>
<td>Persons with Disabilities^</td>
<td>45,224 (17.5%)</td>
<td>39,389 (14.3%)</td>
<td>39,973 (13.6%)</td>
<td>-</td>
</tr>
<tr>
<td>Low-Income Individuals†</td>
<td>42,675 (15.5%)</td>
<td>53,765 (18.5%)</td>
<td>66,891 (23.0%)</td>
<td>↑ 24,216 (↑7.5)</td>
</tr>
<tr>
<td>Zero-Vehicle Households‡</td>
<td>6,967 (6.6%)</td>
<td>6,923 (6.3%)</td>
<td>7,376 (6.3%)</td>
<td>↑ 409 (↑0.3)</td>
</tr>
</tbody>
</table>

Sources: 2000 Census, SF1 100% data & SF3 sample data; 2007 ACS 3-year estimates; 2012 ACS 3-year estimates

*2007 ACS estimates are weighted based on 2000 Census 100% data whereas 2012 ACS estimates are weighted based on 2010 Census 100% data. The Census asks users to use caution when making comparisons across a decennial census year and warns that the estimates may not be strictly comparable.

^The disability questions asked on the 2000 Census and ACS forms through 2007 were substantially different from the questions asked on the 2008 ACS form and later (including the 2010 Census). Therefore, one cannot say with certainty what changes occurred to the prevalence of disabilities between 2000 and 2012.

†Defined as all family members if the family income is less than 1.5 times the poverty threshold set by the federal government.

‡Note that the data reported here are households and the percentage = (zero-vehicle households)/(total households in the county).
It is impossible to conclude with certainty the historical trend of the prevalence of people with disabilities. However, accounting for sampling error and considering results from 2000 and 2007, in all likelihood at least 13% of the current population in Lorain County has some disability.

According to 2011 Longitudinal Employer-Household Dynamics (LEHD) data, Lorain County had 93,056 jobs within the county. In that same year, 75,482 residents of Lorain County were employed outside of the county, which accounts for 56.6% of residents who are employed.

Based on a combined measure of low-income individuals, zero-vehicle households, persons with disabilities, and adults aged 65 and over, the areas with the highest transit reliance are Lorain and Elyria, plus a small sliver of Vermillion in northwest Lorain County (see Figure 2).

Other areas showing moderate-high transit reliance are Avon and North Ridgeville, east of the Lorain region.

East of Lorain County, pockets of high transit reliance exist in Westlake and North Olmstead approaching Cleveland.

Transit Supportive Development Patterns

Lorain County has higher density within the cities of Lorain and Elyria, and medium densities in the surrounding communities of Amherst, Sheffield Lake, Avon Lake, and North Ridgeville. Southern parts of the county are primarily low-density. Of the roughly 301,600 people in the county, 88.3% live in areas of higher density and 11.7% are in areas of lower density (based on 2010 Census block data).

The cluster of Lorain, Elyria, and Amherst is the primary area that, based on national evidence, suggests an ability to support transit service with a frequency of every 60 minutes or less (see Figure 3). Small pockets of transit-supportive areas exist in Oberlin, North Ridgeville, Avon, Avon Lake, and Sheffield Lake.

Many of the areas that indicate a demand for transit service suggest that deviated-fixed-route (orange on Figure 3) service may be more appropriate than standard fixed-route (red on Figure 3) services. For example, Lorain is primarily orange interspersed with blocks of red.

East of Lorain County, many communities show transit-supportive densities for both fixed and deviated-fixed route service. Transit-supportive patterns trend toward fixed-route service moving farther east into Cleveland.

Existing Transit Services

Transit service (fixed-route and paratransit) is available through Lorain County Transit (LCT) in the cities of Lorain and Elyria.

LCT operating characteristics:
- Four routes Monday - Friday, two local routes between Lorain and Elyria and two loop routes in East Elyria, 5:30 AM – 6:30 PM
- No service on weekends
- All routes operate at two hour frequency
- Complementary ADA paratransit service within ¾-mile of their fixed-routes Monday – Friday, 6:00 AM – 6:00 PM
Vanpool service is administered by the Northeast Ohio Areawide Coordination Agency (NOACA)

Local funding is partially provided from the Lorain County Board of Commissioners and partially from the City of Oberlin. The city contributes about $25,000 annually to provide demand response service within Oberlin and to Lorain or Elyria.

2012 Transit Riders per Capita: 0.25
2012 Operating Expenditure per Capita: $4.67

**Opportunities, Challenges, and Needs**

Due to major service cuts in 2009, Lorain County is no longer meeting all the transit needs of its constituents. Service has been ramped down from 14 routes to two.

Unemployment in the county continues to grow, decreasing ridership.

The market for transit is primarily those with disabilities. The community of Oberlin is also a strong supporter of transit for environmental reasons.

The dial-a-ride service meets a huge need for dialysis transportation; 99% of dial-a-ride customers are standing orders to dialysis treatment centers.

Service is needed to Cleveland. Lorain County Transit ran some commuter routes that generated ridership, but not enough to justify costs in the eyes of the county commissioners. Rather than providing service directly to Cleveland, LCT would like to explore service to GCRTA park-and-ride lots, where riders can transfer to service into downtown Cleveland.

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1 Based on 2012 ACS estimates for Lorain County (301,611).
Figure 2: Demographic and Socio-Economic Characteristics Affecting Reliance on Transit Service

Source: 2008 - 2012 5-year ACS Estimates; TIGER/Line Files; ESRI; ODOT
Figure 3 Development Patterns (Population and Employment Density) Influencing Transit Service Design

Source: 2011 LEHD; 2010 Census SF1 100% data; TIGER/Line Files; ESRI; ODOT

Note: The “defined transit service area” indicates the official boundaries of the agency service area and does not necessarily indicate the coverage of the current routes in operation.
MAHONING COUNTY

Overview

- Mahoning County is located along the eastern edge of Ohio bordering Pennsylvania.
- Youngstown is the largest city in the county and is part of the Youngstown-Warren-Boardman, OH-PA Metropolitan Area.
- Mahoning County is located nearly midway between Cleveland, OH and Pittsburgh, PA. Youngstown is located 70 miles northwest of Pittsburgh and 70 miles southeast of Cleveland.

Factors Influencing Transit Reliance and Demand

Employment, Demographics and Socio-Economic Characteristics

- During the past 12 years, Mahoning County’s population has decreased by 8%, or more than 20,800 people.
- The number of youth in Mahoning County has decreased by more than 8,200, a difference of nearly 2%.
- While the number of older adults has decreased overall since 2000, the percentage of the population who are older has remained nearly constant at about 18%.
- Low-income individuals make up a larger proportion of the population in 2012 than in 2000 (28.4% versus 21.1%), although zero-car households have declined.

Figure 1 Selected County Demographic and Socio-Economic Characteristics: Historical Trends

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>257,555</td>
<td>243,289</td>
<td>236,713</td>
<td>-20,842</td>
</tr>
<tr>
<td>Youths (5-17)</td>
<td>45,817</td>
<td>(17.8%)</td>
<td>40,771</td>
<td>(16.8%)</td>
</tr>
<tr>
<td>Older Adults (65+)</td>
<td>45,729</td>
<td>(17.8%)</td>
<td>42,672</td>
<td>(18.0%)</td>
</tr>
<tr>
<td>Persons with Disabilities*</td>
<td>47,741</td>
<td>(20.2%)</td>
<td>38,817</td>
<td>(17.3%)</td>
</tr>
<tr>
<td>Low-Income Individuals†</td>
<td>52,865</td>
<td>(21.1%)</td>
<td>65,144</td>
<td>(28.4%)</td>
</tr>
<tr>
<td>Zero-Vehicle Households‡</td>
<td>9,844</td>
<td>(9.6%)</td>
<td>8,164</td>
<td>(8.2%)</td>
</tr>
</tbody>
</table>

Sources: 2000 Census, SF1 100% data & SF3 sample data; 2007 ACS 3-year estimates; 2012 ACS 3-year estimates

*2007 ACS estimates are weighted based on 2000 Census 100% data whereas 2012 ACS estimates are weighted based on 2010 Census 100% data. The Census asks users to use caution when making comparisons across a decennial census year and warns that the estimates may not be strictly comparable.

*The disability questions asked on the 2000 Census and ACS forms through 2007 were substantially different from the questions asked on the 2008 ACS form and later (including the 2010 Census). Therefore, one cannot say with certainty what changes occurred to the prevalence of disabilities between 2000 and 2012.

†Defined as all family members if the family income is less than 1.5 times the poverty threshold set by the federal government.

‡Note that the data reported here are households and the percentage = (zero-vehicle households)/(total households in the county).
It is impossible to conclude with certainty the historical trend of the prevalence of people with disabilities. However, accounting for sampling error and considering results from 2000 and 2007, in all likelihood at least 15% of the current population in Mahoning County has some disability.

According to 2011 Longitudinal Employer-Household Dynamics (LEHD) data, Mahoning County had 100,034 jobs within the county. In that same year, 48,443 residents of Mahoning County were employed outside of the county, which accounts for 47.9% of residents who are employed.

Based on a combined measure of low-income individuals, zero-vehicle households, persons with disabilities, and adults aged 65 and over, the area with the highest transit reliance within Mahoning County is Youngstown (see Figure 2).

Others areas showing a moderate to high transit reliance include Campbell and Struthers.

Hubbard, Warren, and Alliance, located in neighboring Trumbull and Stark County, also show high to very high transit reliance.

Transit Supportive Development Patterns

Mahoning County’s density is focused in the northeast corner of the county around Youngstown and its neighboring communities. The northwest and southern halves of the county are primarily lower in density. Of the roughly 236,700 people in the county, 84.8% live in areas of higher density and 15.2% are in areas of lower density (based on 2010 Census block data).

Youngstown, Campbell, and Struthers are the areas with notable population and employment densities that, based on national evidence, suggest an ability to support transit service with a frequency of every 60 minutes or less (see Figure 3). A pocket of transit-supportive density also sits at the southwest corner of the county in Sebring.

Many of the areas that indicate a demand for transit service suggest that deviated-fixed-route (orange on Figure 3) service may be more appropriate than standard fixed-route (red on Figure 3) services. An exception to this finding is Youngstown, where the city core can support fixed-route service but outlying areas transition to densities that support deviated fixed-route.

Similar to the results above, areas with transit supportive densities outside of the county are Alliance in Stark County and Warren, Niles, Gerard, and Hubbard in Trumbull County.

Existing Transit Services

Fixed-route transit service is available through the Western Reserve Transit Authority (WRTA) in Youngstown and its surrounding suburbs.

WRTA offers countywide demand response service called EasyGo that is available to everyone and will travel to adjacent counties.

WRTA operating characteristics:

- Fifteen routes Monday – Friday, 5:40 AM – 7:00 PM, and Saturday, 7:00 AM – 7:00 PM
- One route Monday – Friday, 7:00 PM – midnight, which combines six of the fifteen routes operated during the day
Most routes operate at a 60-minute minute frequency; only one to two routes operate at a higher frequency during peak hours and the midday

One shuttle route at Youngstown State University every 30 minutes from 7:30 AM – 8:00 PM

Three suburban loop routes in Austintown, Boardman, and Canfield on varying days of the week and times of day; all run at a 60-minute frequency or less

Complementary ADA paratransit service within ¾-mile and during the same operating times of their fixed-routes

EasyGo demand response service Monday – Friday, 6:00 AM – 6:00 PM, and Saturday, 8:00 AM – 4:00 PM

− Local funding is provided through a property tax levy. The property tax raises approximately $100k annually.

− 2012 Transit Riders per Capita: 7.85

− 2012 Operating Expenditure per Capita: $37.62

Opportunities, Challenges, and Needs

− Mahoning County has experienced significant population loss over the past 12 years.

− Mahoning County has a major metropolitan area, Youngstown, but as Figure 3 shows, transit supportive areas are spread out in a wide swath stretching south and west of the city and include the nearby communities of Campbell, Struthers, and Canfield. This type of development pattern becomes difficult to serve with fixed-route transit.

− Services used to be focused in downtown, but today there are fewer services in downtown Youngtown. Service-based jobs require longer trips to decentralized locations.

− The majority of WRTA riders are women and/or minorities.

− The agency recently lost the school market as students began riding yellow school buses.

− Many commuters are not riding five days/week due to part-time employment.

− Several years ago when WRTA was still funded by property tax the agency had to cut night and weekend service. Today, finances have stabilized under a sales tax model and services have been restored, although Saturday ridership remains far below previous levels.

− Successful new services include loops in areas with many shopping and medical destinations as well as the countywide demand-response system EasyGo.

− Intelligent vehicle systems and technology would help with making schedules, improving running times, and adding frequency.

1 Based on 2012 ACS estimates for Mahoning County (236,713).
Figure 2 Demographic and Socio-Economic Characteristics Affecting the Reliance on Transit Service

Source: 2008 - 2012 5-year ACS Estimates; TIGER/Line Files; ESRI; ODOT
Figure 3 Development Patterns (Population and Employment Density) Influencing Transit Service Design

Source: 2011 LEHD; 2010 Census SF1 100% data; TIGER/Line Files; ESRI; ODOT

Note: The “defined transit service area” indicates the official boundaries of the agency service area and does not necessarily indicate the coverage of the current routes in operation.
MEDINA COUNTY

Overview

- Medina County is in northeast Ohio
- Medina is the largest city in the county and is also the county seat
- Medina County is part of the Cleveland-Elyria-Mentor Metropolitan Statistical Area. The city of Wadsworth is part of the Akron urbanized area.
- Although Medina County is part of the Cleveland MSA, the city of Medina is actually closer to Akron, which is about 35 miles away

Factors Influencing Transit Reliance and Demand

Employment, Demographics and Socio-Economic Characteristics

- Medina County’s population has grown nearly 15% over the past 12 years.
- As a percentage of overall population, youths in Medina County have declined; however, the absolute number of youth went up by more than 2,000.
- The number of older adults aged 65+ increased to nearly 14% of the population.
- Medina County is fairly well-off compared to other Ohio counties. Just over 15% of the population falls into the low-income category compared to the average of 24.8%. Still, prevalence of low-income individuals increased significantly since 2000, nearly doubling from 8.4% to 15.1%. Households without a vehicle remained fairly steady.

Figure 1 Selected County Demographic and Socio-Economic Characteristics: Historical Trends

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>151,095</td>
<td>167,893</td>
<td>173,217</td>
<td>22,122</td>
</tr>
<tr>
<td>Youths (5-17)</td>
<td>30,899 (20.5%)</td>
<td>31,881 (19.0%)</td>
<td>32,988 (19.0%)</td>
<td>2,089 (1.4)</td>
</tr>
<tr>
<td>Older Adults (65+)</td>
<td>15,913 (10.5%)</td>
<td>19,135 (11.4%)</td>
<td>23,579 (13.6%)</td>
<td>7,666 (3.1)</td>
</tr>
<tr>
<td>Persons with Disabilities^</td>
<td>19,535 (14.0%)</td>
<td>18,251 (11.7%)</td>
<td>16,768 (9.7%)</td>
<td>-</td>
</tr>
<tr>
<td>Low-Income Individuals†</td>
<td>12,478 (8.4%)</td>
<td>16,468 (9.9%)</td>
<td>25,905 (15.1%)</td>
<td>13,427 (6.7)</td>
</tr>
<tr>
<td>Zero-Vehicle Households‡</td>
<td>2,189 (4.0%)</td>
<td>1,859 (3.0%)</td>
<td>2,785 (4.2%)</td>
<td>596 (0.2)</td>
</tr>
</tbody>
</table>

Sources: 2000 Census, SF1 100% data & SF3 sample data; 2007 ACS 3-year estimates; 2012 ACS 3-year estimates
*2007 ACS estimates are weighted based on 2000 Census 100% data whereas 2012 ACS estimates are weighted based on 2010 Census 100% data. The Census asks users to use caution when making comparisons across a decennial census year and warns that the estimates may not be strictly comparable.

^The disability questions asked on the 2000 Census and ACS forms through 2007 were substantially different from the questions asked on the 2008 ACS form and later (including the 2010 Census). Therefore, one cannot say with certainty what changes occurred to the prevalence of disabilities between 2000 and 2012.

†Defined as all family members if the family income is less than 1.5 times the poverty threshold set by the federal government.
‡Note that the data reported here are households and the percentage = (zero-vehicle households)/(total households in the county).
It is impossible to conclude with certainty the historical trend of the prevalence of people with disabilities. However, accounting for sampling error and considering results from 2000 and 2007, in all likelihood at least 9% of the current population in Medina County has some disability.

According to 2011 Longitudinal Employer-Household Dynamics (LEHD) data, Medina County had 56,278 jobs within the county. In that same year, 58,183 residents of Medina County were employed outside of the county, which accounts for 70.2% of residents who are employed.

Based on a combined measure of low-income individuals, zero-vehicle households, persons with disabilities, and adults aged 65 and over, Medina County exhibits moderate transit reliance in Medina, Brunswick, Wadsworth, and the southwest corner of the county (see Figure 2).

The remainder of the county shows moderate-low to very low transit reliance.

Farther to the north and east of Medina County areas of higher reliance become visible approaching Cleveland and Akron; however, no communities bordering Medina County exhibit high transit reliance.

Transit Supportive Development Patterns

Medina County has two primary areas of higher density: the city of Medina, located in the center of the county, and Brunswick, located closer to the northern boundary of the county. Of the roughly 173,200 people in the county, 70.2% live in areas of higher density and 29.8% are in areas of lower density (based on 2010 Census block data).

Medina, Brunswick, and Wadsworth are the only areas with population and employment densities that, based on national evidence, suggest an ability to support transit service with a frequency of every 60 minutes or less (see Figure 3).

Many of the areas that indicate a demand for transit service suggest that deviated-fixed-route (orange on Figure 3) service may be more appropriate than standard fixed-route (red on Figure 3) services. Medina shows a mix of red and orange, thus the city may support both fixed and deviated-fixed route services.

Strongsville, just north of Brunswick in Cuyahoga County, also exhibits transit supportive densities. East of Medina County, the community of Fairlawn is the closest area that supports transit.

Existing Transit Services

Deviated fixed-route transit service is available through Medina County Public Transit (MCPT) in the cities of Medina and Brunswick.

MCPT also offers county-wide demand response service open to the general public, and provides connecting service to the Greater Cleveland RTA and Akron Metro RTA by special arrangement.

MCPT operating characteristics:

- One deviated fixed-route in Medina Monday-Friday, 8:00 AM – 7:15 PM, and Saturday, 8:00 AM – 5:45 PM
- Two deviated fixed-routes in Brunswick Monday – Friday, 6:20 AM – 7:10 PM, and Saturday, 10:20 AM – 5:20 PM
Medina route generally operates every 80 minutes on weekdays and two- to three-hour frequencies on weekends.
Brunswick routes run at a 60-minute frequency.
Demand response service operates Monday-Friday, 6:00 AM – 6:00 PM

Local funding is provided by the Medina County Board of Commissioners and Cities of Medina, Wadsworth, and Brunswick. MCPT is also funded through Community Development Block Grants (CDBG) and multiple contracts with agencies, including Medina County Department of Jobs and Family Services.

2012 Transit Riders per Capita¹: **0.62**
2012 Operating Expenditure per Capita¹: **$11.21**

### Opportunities, Challenges, and Needs

Medina County is a relatively wealthy county – the third most affluent in Ohio.

Until 2013, Medina County had been classified as rural and operated a rural transit system using state and federal 5311 funds. The system was mostly demand responsive, but included a deviated fixed route with flag stops. A dial-a-ride operated in rural parts of the county and, in some cases, served out-of-county trips.

Based on the latest Census information, Medina County is now classified as urban – one of only three systems in Ohio that are being reclassified to urban in 2014. This changes the financial situation for the transit system dramatically (shifting to federal Section 5307 funding). Section 5307 funds cannot be used for operating assistance in urbanized areas over 200,000 in population unless the transit system falls under the 100 bus rule under MAP-21 for fixed routes only. This has led to a complete reconfiguration of its service, taking place in January 2014. The system will shift to a fixed route, fixed stop service with expanded ADA service.

The shift to a fixed route without deviation may leave some riders without service if they do not meet ADA definition and cannot be accommodated on the countywide dial-a-ride.

An opportunity to better serve the market is a merger with the Brunswick system. Medina County currently provides operations for Brunswick under a contract arrangement.

¹ Based on 2012 ACS estimates for Medina County (173,217).
Figure 2 Demographic and Socio-Economic Characteristics Affecting Reliance on Transit Service

Source: 2008 - 2012 5-year ACS Estimates; TIGER/Line Files; ESRI; ODOT
Figure 3 Development Patterns (Population and Employment Density) Influencing Transit Service Design

Source: 2011 LEHD; 2010 Census SF1 100% data; TIGER/Line Files; ESRI; ODOT

Note: The “defined transit service area” indicates the official boundaries of the agency service area and does not necessarily indicate the coverage of the current routes in operation.
PORTAGE COUNTY

Overview

- Portage County is located in northeastern Ohio between Cleveland and Youngstown.
- Kent is the largest city in the county, and the county is part of the Akron Metropolitan Statistical Area.
- The nearest metropolitan area is Cleveland, which is located about 40 miles north of Kent.

Factors Influencing Transit Reliance and Demand

Employment, Demographics and Socio-Economic Characteristics

- Portage County's population has increased by more than 9,400 people since 2000, a 6.2% increase.
- The number of youth in Portage County has decreased by nearly 1,900, representing more than a two percentage point difference in total population from 2000.
- The number of adults aged 65+ increased by 4,803 people over the past 12 years. In that time, the percentage of the population of this age grew from 11.0% to 13.3%.
- A greater percentage of people have low incomes today than in 2000, though the increase was typical of other counties in Ohio. Overall, the county is somewhat worse off today than in the past decade but remains slightly wealthier than an average county in Ohio. Slightly fewer people own cars.

Figure 1 Selected County Demographic and Socio-Economic Characteristics: Historical Trends

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<tr>
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</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>152,061</td>
<td>155,373</td>
<td>161,494</td>
<td>9,433</td>
</tr>
<tr>
<td>Youths (5-17)</td>
<td>26,812 (17.6%)</td>
<td>25,394 (16.3%)</td>
<td>24,959 (15.5%)</td>
<td>-1,853 (-2.2)</td>
</tr>
<tr>
<td>Older Adults (65+)</td>
<td>16,688 (11.0%)</td>
<td>17,765 (11.4%)</td>
<td>21,491 (13.3%)</td>
<td>4,803 (2.3)</td>
</tr>
<tr>
<td>Persons with Disabilities^</td>
<td>22,027 (15.5%)</td>
<td>20,182 (13.8%)</td>
<td>18,660 (11.6%)</td>
<td>-</td>
</tr>
<tr>
<td>Low-Income Individuals†</td>
<td>22,832 (15.8%)</td>
<td>28,196 (19.0%)</td>
<td>36,811 (23.8%)</td>
<td>13,979 (7.9)</td>
</tr>
<tr>
<td>Zero-Vehicle Households‡</td>
<td>2,836 (5.0%)</td>
<td>3,091 (5.2%)</td>
<td>3,287 (5.5%)</td>
<td>451 (0.4)</td>
</tr>
</tbody>
</table>

Sources: 2000 Census, SF1 100% data & SF3 sample data; 2007 ACS 3-year estimates; 2012 ACS 3-year estimates
*2007 ACS estimates are weighted based on 2000 Census 100% data whereas 2012 ACS estimates are weighted based on 2010 Census 100% data. The Census asks users to use caution when making comparisons across a decennial census year and warns that the estimates may not be strictly comparable.

^The disability questions asked on the 2000 Census and ACS forms through 2007 were substantially different from the questions asked on the 2008 ACS form and later (including the 2010 Census). Therefore, one cannot say with certainty what changes occurred to the prevalence of disabilities between 2000 and 2012.

†Defined as all family members if the family income is less than 1.5 times the poverty threshold set by the federal government.

‡Note that the data reported here are households and the percentage = (zero-vehicle households)/(total households in the county).
— It is impossible to conclude with certainty the historical trend of the prevalence of people with disabilities. However, accounting for sampling error and considering results from 2000 and 2007, in all likelihood at least 11% of the current population in Portage County has some disability.

— According to 2011 Longitudinal Employer-Household Dynamics (LEHD) data, Portage County had 51,756 jobs within the county. In that same year, 46,632 residents of Portage County were employed outside of the county, which accounts for 68.2% of residents who are employed.

— Based on a combined measure of low-income individuals, zero-vehicle households, persons with disabilities, and adults aged 65 and over, the areas most reliant on transit within Portage County are Kent and Ravenna (see Figure 2).

— Others areas showing a moderate transit reliance include areas in the northwestern and eastern parts of the county, particularly the area to the east of Ravenna.

— Outside of Portage County, areas around Akron and Cleveland show high transit reliance.

Transit Supportive Development Patterns

— Portage County is primarily a low-density county with higher-density areas around Kent, Ravenna, and Streetsboro. Of the roughly 161,500 people in the county, 67.2% live in areas of higher density and 32.8% are in areas of lower density (based on 2010 Census block data).

— Ravenna, Kent, and Aurora are the only areas with population and employment densities that, based on national evidence, suggest an ability to support transit service with a frequency of every 30 minutes or less (see Figure 3).

— Some areas that indicate a demand for transit service suggest that deviated-fixed-route (orange on Figure 3) service may be more appropriate than standard fixed-route (red on Figure 3) services. Some of these areas include Streetsboro and areas around Kent and Ravenna.

— Similar to the results above, areas with transit supportive densities outside of the county are within or just outside of Akron and Cleveland.

Existing Transit Services

— Fixed-route transit service is available through the Portage Area Regional Transportation Authority (PARTA) largely around the cities of Kent and Ravenna. The service also includes campus routes around Kent State University.

— PARTA offers county-wide demand response service that is open to the general public. PARTA will also travel to outlying areas of the county on certain days of the week.

— PARTA operating characteristics:
  ✓ Six routes Monday - Friday, three in Kent, one in Ravenna, one interurban route connecting Kent and Ravenna, and one around Windham and Garrettsville, 5:30 AM - 10:30 PM
  ✓ Two routes on Saturdays, a suburban route in Kent and interurban route between Kent and Ravenna, 7:30 AM – 7:00 PM
  ✓ Two express routes Monday - Friday, one from Kent to Akron, 6:30 AM - 6:30 PM, and another to Cleveland with trips at 6:00 AM and 4:00 PM
Seven campus routes, six on Monday - Friday, 6:00 AM – 11:00 PM, and one on Thursday - Friday, 10:00 PM – 2:00 AM

On-call late night campus shuttle service Monday–Thursday, 11:00 PM – 3:00 AM, and Sundays 4:00 PM – 3:00 AM

Demand response service throughout the county Monday - Friday, 7:00 AM – 5:00 PM, and limited service on Saturday within ¾-mile of Saturday fixed-routes in Kent and Ravenna

— Local funding is largely provided through contracts with Kent State University, contributing about $2 million annually.
— 2012 Transit Riders per Capita¹: 9.46
— 2012 Operating Expenditure per Capita¹: $52.07

Opportunities, Challenges, and Needs

— Portage County is mostly rural with concentrations of population and employment in Kent and Ravenna. The population is growing, aging, and becoming poorer.
— PARTA has traditionally focused on door-to-door service due to the county’s rural nature. With increase in ridership and demand, PARTA has begun to focus more on fixed route.
— PARTA operates express trips to Cleveland and Akron and connections to Akron METRO in Stowe, providing regional mobility.
— Of the 1.5 million annual boardings, about one million are from Kent State University, providing a good market for transit but also requiring resources to be heavily concentrated in Kent.
— Currently there is no fixed route service between Ravenna and Streetsboro. PARTA has not been able to fund this service but would like to given the widespread desire to have access to jobs in Streetsboro.
— Of the 16 school districts in Portage County, several have cut yellow bus service. There may be a need for school transit outside of the areas that PARTA currently runs fixed route service.
— The recently opened Kent Central Gateway Intermodal Center is an example of how transit investments can play a role in the economic development of a downtown area and strengthen the county. The Kent Central Gateway was funded in large part by a $20 million TIGER (Transportation Investment Generating Economic Recovery) grant through the Federal Transit Administration.

¹ Based on 2012 ACS estimates for Portage County (161,494).
Figure 2 Demographic and Socio-Economic Characteristics Affecting Reliance on Transit Service

Source: 2008 - 2012 5-year ACS Estimates; TIGER/Line Files; ESRI; ODOT
Figure 3 Development Patterns (Population and Employment Density) Influencing Transit Service Design

Source: 2011 LEHD; 2010 Census SF1 100% data; TIGER/Line Files; ESR; ODOT

Note: The “defined transit service area” indicates the official boundaries of the agency service area and does not necessarily indicate the coverage of the current routes in operation.
Richland County

Overview

- Richland County is located in north central Ohio.
- Mansfield is the largest city in the county and is part of the Mansfield Metropolitan Statistical Area as well as the Mansfield-Bucyrus Combined Statistical Area.
- Mansfield is located about 70 miles north of Columbus and 80 miles southwest of Cleveland.

Factors Influencing Transit Reliance and Demand

Employment, Demographics and Socio-Economic Characteristics

- Richland County’s population has decreased by more than 5,500 people (4.3%) since 2000.
- The number of youth in Richland County has decreased by more than 3,500, a 2% decrease.
- The number of older adults aged 65+ also increased over the past 12 years, and this cohort now comprises nearly 17% of the total population.
- A greater percentage of people have low incomes today than in 2000, and there are slightly more zero-vehicle households. Overall, the county is relatively poorer than an average county in Ohio (26.2% low-income in Richland County versus 24.8% on average).

Figure 1 Selected County Demographic and Socio-Economic Characteristics: Historical Trends

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<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>128,852</td>
<td>126,369</td>
<td>123,331</td>
<td>▼ 5,521</td>
</tr>
<tr>
<td>Youths (5-17)</td>
<td>23,771 (18.4%)</td>
<td>21,585 (17.1%)</td>
<td>20,261 (16.4%)</td>
<td>▼ 3,510 (▼ 2.0)</td>
</tr>
<tr>
<td>Older Adults (65+)</td>
<td>18,243 (14.2%)</td>
<td>19,196 (15.2%)</td>
<td>20,768 (16.8%)</td>
<td>▲ 2,525 (▲ 2.7)</td>
</tr>
<tr>
<td>Persons with Disabilities^</td>
<td>21,409 (18.7%)</td>
<td>18,628 (16.7%)</td>
<td>16,052 (13.8%)</td>
<td>-</td>
</tr>
<tr>
<td>Low-Income Individuals†</td>
<td>24,051 (19.7%)</td>
<td>26,818 (22.5%)</td>
<td>30,393 (26.2%)</td>
<td>▲ 6,342 (▲ 6.5)</td>
</tr>
<tr>
<td>Zero-Vehicle Households‡</td>
<td>3,737 (7.5%)</td>
<td>4,384 (8.8%)</td>
<td>3,993 (8.3%)</td>
<td>▲ 256 (▲ 0.7)</td>
</tr>
</tbody>
</table>

Sources: 2000 Census, SF1 100% data & SF3 sample data; 2007 ACS 3-year estimates; 2012 ACS 3-year estimates

*2007 ACS estimates are weighted based on 2000 Census 100% data whereas 2012 ACS estimates are weighted based on 2010 Census 100% data. The Census asks users to use caution when making comparisons across a decennial census year and warns that the estimates may not be strictly comparable.

^The disability questions asked on the 2000 Census and ACS forms through 2007 were substantially different from the questions asked on the 2008 ACS form and later (including the 2010 Census). Therefore, one cannot say with certainty what changes occurred to the prevalence of disabilities between 2000 and 2012.

†Defined as all family members if the family income is less than 1.5 times the poverty threshold set by the federal government.

‡Note that the data reported here are households and the percentage = (zero-vehicle households)/(total households in the county).
— It is impossible to conclude with certainty the historical trend of the prevalence of people with disabilities. However, accounting for sampling error and considering results from 2000 and 2007, in all likelihood at least 13% of the current population in Richland County has some disability.

— According to 2011 Longitudinal Employer-Household Dynamics (LEHD) data, Richland County had 51,858 jobs within the county. In that same year, 19,925 residents of Richland County were employed outside of the county, which accounts for 42.0% of residents who are employed.

— Based on a combined measure of low-income individuals, zero-vehicle households, persons with disabilities, and adults aged 65 and over, the area with the highest transit reliance within Richland County is Mansfield (see Figure 2).

— Other areas showing a moderate to high transit reliance include the southwest corner of the county and select areas near Ontario, Shelby, and Plymouth.

— Galion (crossing Richland, Crawford, and Morrow counties) and Ashland (located in Ashland County) both show areas with a moderate to high transit reliance.

Transit Supportive Development Patterns

— Richland County is primarily a low-density county with two small- to medium-sized higher-density areas, Shelby and Mansfield (including Ontario), and other small pockets of medium density communities scattered throughout the county. Of the roughly 123,300 people in the county, 67.9% live in areas of higher density and 32.1% are in areas of lower density (based on 2010 Census block data).

— Mansfield, Ontario, and portions of Shelby, Lexington, Bellville, Butler, and small portions of unincorporated Richland County are the only areas with population and employment densities that, based on national evidence, suggest an ability to support transit service with a frequency of every 60 minutes or less (see Figure 3).

— Many of the areas that indicate a demand for transit service suggest that deviated-fixed-route (orange on Figure 3) service may be more appropriate than standard fixed-route (red on Figure 3) services. An exception to this finding is Mansfield, Ontario, and small portions of Shelby, which show a variable mix.

— Similar to the results above, areas with transit-supportive densities outside of the county are around Ashland (in Ashland County) and Galion (crossing Richland, Crawford, and Morrow counties).

Existing Transit Services

— Transit service (fixed-route and paratransit) is available through Richland County Transit (RCT) in the cities of Mansfield, Shelby, and Ontario.

— No fixed route or paratransit service is available outside of the RCT service area.

— Richland County Transit operating characteristics:

  ✓ Fourteen routes Monday – Friday in Mansfield and Ontario, 7:00 AM – 6:00 PM, with one route that goes to Shelby

  ✓ 60-minute minute operating frequency on most routes
Market Analysis

Ohio Department of Transportation

- Complementary ADA paratransit service within ¾-mile and during the same operating times of their fixed-routes
- Partners with the City of Shelby to offer taxi service within the city, Monday – Friday, 8:00 AM – 4:00 PM
  - Local funding is provided through General Fund contributions and the Community Development Block Grant (CDBG) program. RCT receives about $80,000 each from the city and county.
- 2012 Transit Riders per Capita \(^1\): **2.32**
- 2012 Operating Expenditure per Capita \(^1\): **$14.69**

**Opportunities, Challenges, and Needs**

- Richland County’s population has dropped sharply since 2000; of the neighboring counties that also experienced decline, Richland County’s was the most severe.
- As shown in Figure 3, a substantial portion of Richland County has densities that support transit, but many pockets are isolated from the city’s core and reveal densities more likely to support deviated rather than fixed route service.
- RCT serves the urbanized area in Richland County, including Mansfield and the cities of Ontario and Shelby. The agency would like to offer countywide service, but the agency does not have enough funding.
- Most riders are “captive riders,” and there are a large number of senior citizens without vehicles.
- RCT has been able to expand its market through cost-sharing agreements and doing more with less. For example, service to North Central State College in Shelby was made possible by funding from NCSC and the city of Shelby. A spare demand-response driver was put onto a new service route to the airport, which is very popular. NCSC and The Ohio State University at Mansfield provide a lump sum of local share and, in return, students ride free.
- More service is needed on Saturdays. RCT has had to cut service frequencies on some routes to 120 minutes; ideally all routes would operate at least hourly. Service until 8:00 or 9:00 PM would also catch more riders.
- RCT is seeing job growth, new companies moving into the area, and the need to get riders to new jobs. Half of RCT trips are work-related.
- Human services agencies are purchasing more tickets/passes than ever as their budgets get tight. Partners include churches, the court, Jobs and Family Services, Developmental Disabilities, and the mental health board.

\(^1\) Based on 2012 ACS estimates for Richland County (123,331).
Figure 2 Demographic and Socio-Economic Characteristics Affecting the Reliance on Transit Service

Source: 2008 - 2012 5-year ACS Estimates; TIGER/Line Files; ESRI; ODOT
Figure 3 Development Patterns (Population and Employment Density) Influencing Transit Service Design

Source: 2011 LEHD; 2010 Census SF1 100% data; TIGER/Line Files; ESRI; ODOT

Note: The "defined transit service area" indicates the official boundaries of the agency service area and does not necessarily indicate the coverage of the current routes in operation.
STARK COUNTY

Overview

— Stark County is located in northeast Ohio.
— Canton is the largest city in the county, the county seat, and part of the Canton-Massillon Metropolitan Statistical Area.
— The nearest major metropolitan area is Cleveland, OH, which is located 60 miles north of Canton.

Factors Influencing Transit Reliance and Demand

Employment, Demographics and Socio-Economic Characteristics

— Stark County’s population has decreased by more than 3,200 (0.9%) since 2000.
— The number of youth in Stark County has decreased by nearly 6,500, a 1.6% difference.
— The number of older adults has increased by nearly 5,000 in the past 12 years, and the percentage of the population who are older has increased by 1.4%, to 16.5% of the total population.
— The percent of low-income individuals as a percent of total population (24.7%) is a fraction below the average for Ohio counties (24.8%); however, the change in Stark County from 2000 is drastic. In 2012, nearly 28,000 more people fell into the low-income category, an increase of 7.8%.

Figure 1: Selected County Demographic and Socio-Economic Characteristics: Historical Trends

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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>378,098</td>
<td>378,691</td>
<td>374,871</td>
<td>$3,227</td>
</tr>
<tr>
<td>Youths (5-17)</td>
<td>69,769 (18.5%)</td>
<td>65,895 (17.4%)</td>
<td>63,332 (16.9%)</td>
<td>6,437 ($1.6)</td>
</tr>
<tr>
<td>Older Adults (65+)</td>
<td>57,054 (15.1%)</td>
<td>58,384 (15.4%)</td>
<td>61,897 (16.5%)</td>
<td>4,843 ($1.4)</td>
</tr>
<tr>
<td>Persons with Disabilities^</td>
<td>61,750 (17.7%)</td>
<td>58,217 (16.6%)</td>
<td>49,117 (13.3%)</td>
<td>-</td>
</tr>
<tr>
<td>Low-Income Individuals†</td>
<td>62,342 (16.9%)</td>
<td>72,786 (19.7%)</td>
<td>90,329 (24.7%)</td>
<td>27,987 ($7.8)</td>
</tr>
<tr>
<td>Zero-Vehicle Households‡</td>
<td>10,473 (7.1%)</td>
<td>10,546 (7.0%)</td>
<td>10,892 (7.3%)</td>
<td>419 ($0.2)</td>
</tr>
</tbody>
</table>

Sources: 2000 Census, SF1 100% data & SF3 sample data; 2007 ACS 3-year estimates; 2012 ACS 3-year estimates

*2007 ACS estimates are weighted based on 2000 Census 100% data whereas 2012 ACS estimates are weighted based on 2010 Census 100% data. The Census asks users to use caution when making comparisons across a decennial census year and warns that the estimates may not be strictly comparable.

^The disability questions asked on the 2000 Census and ACS forms through 2007 were substantially different from the questions asked on the 2008 ACS form and later (including the 2010 Census). Therefore, one cannot say with certainty what changes occurred to the prevalence of disabilities between 2000 and 2012.

†Defined as all family members if the family income is less than 1.5 times the poverty threshold set by the federal government.
‡Note that the data reported here are households and the percentage = (zero-vehicle households)/(total households in the county).
It is impossible to conclude with certainty the historical trend of the prevalence of people with disabilities. However, accounting for sampling error and considering results from 2000 and 2007, in all likelihood at least 13% of the current population in Stark County has some disability.

According to 2011 Longitudinal Employer-Household Dynamics (LEHD) data, Stark County had 153,082 jobs within the county. In that same year, 66,507 residents of Stark County were employed outside of the county, which accounts for 41.4% of residents who are employed.

Based on a combined measure of low-income individuals, zero-vehicle households, persons with disabilities, and adults aged 65 and over, the areas with the highest transit reliance within Stark County are Canton, North Canton, Massillon, and Alliance (see Figure 2).

Others areas showing a moderate to high transit reliance include the northwest and southeast corners of the county.

Akron and Barberton, located in adjacent Summit County, both show high to very high transit reliance.

Transit Supportive Development Patterns

Stark County shows significant high density development in Canton, Massillon, and Alliance. The area north of Canton and other pockets scattered around the county also show relatively significant densities. Of the roughly 374,900 people in the county, 86.5% live in areas of higher density and 13.5% in areas of lower density (based on 2010 Census block data).

Canton, Massillon, North Canton, Alliance, Louisville, Canal Fulton, and Hartville have notable population and employment densities that, based on national evidence, suggest an ability to support transit service with a frequency of every 60 minutes or less (see Figure 3).

Many of the areas that indicate a demand for transit service suggest that deviated-fixed-route (orange on Figure 3) service may be more appropriate than standard fixed-route (red on Figure 3) services. Canton, North Canton, and Massillon, which show a variable mix, can most often support 30-minute service or less.

Similar to the results above, areas with transit supportive densities outside of the county include Akron and Barberton.

Existing Transit Services

Transit services (fixed-route and demand response) are available through the Stark Area Regional Transit Authority (SARTA).

SARTA operating characteristics:

- Thirty-three routes Monday – Friday, 5:45 AM – 1:40 AM, operating primarily in Canton, Belden, Alliance, and Massillon with routes going to East Sparta, East Canton, and Hartville
- Twenty-nine Saturday routes, 5:45 AM – 1:40 AM
- About seven routes (a little over 20% of service) operate at a 30-minute frequency or better during peak hours
Commuter route to Cleveland and express routes to Akron and the Akron-Canton Airport

Countywide ADA paratransit service (called Proline) during the same operating times as SARTA's fixed-routes

MedLine, a door-to-door non-medical transportation service available to those with a Medicaid Waiver

Various Veteran services

Local funding is provided through a 0.25% sales tax levy that must be renewed every five years.

2012 Transit Riders per Capita¹: 7.09

2012 Operating Expenditure per Capita¹: $40.79

Opportunities, Challenges, and Needs

Stark County has experienced a major increase in the prevalence of persons with low income during the past 12 years.

The county has a large higher-density core, but like many cities, pockets of transit-supportive areas at the edge of the SARTA service area are isolated.

SARTA’s ridership is 50% commuters, 15-20% schools, and 35-40% medical. The agency has been building stronger relationships with area colleges, and is also discussing coordinating school bus transportation.

SARTA’s countywide paratransit has become a valuable asset to the county. SARTA’s market is gearing more toward the senior population, so additional service is needed. The system is having trouble keeping up with demand. Another hindrance is that Medicaid riders cannot ride with general purpose demand-response riders.

The lack of coordination between various agencies keeps SARTA from exploring new markets and increasing efficiency. For example, there are inconsistent rules between state agencies that provide transportation, with different driver rules and regulations and background requirements. On the Medicaid side, each agency (Jobs and Family Services, Developmental Disabilities, etc.) creates its own contract for Non-Emergency Medical Transportation rather than coordinating trips.

A goal of SARTA’s is to restore Sunday service, even though it is not very productive. The agency would like to achieve a policy headway of 30 minutes on major routes. Earlier service is also needed—transportation disadvantaged populations cannot get to work by 6:00 AM. There is a tension between cost efficiency and people needing to be at work at a certain time.

Flexible routing in unincorporated areas could help provide more cost-effective service across the 460 square mile county.

¹ Based on 2012 ACS estimates for Stark County (374,871).
Figure 2 Demographic and Socio-Economic Characteristics Affecting the Reliance on Transit Service

Source: 2008 - 2012 5-year ACS Estimates; TIGER/Line Files; ESRI; ODOT
Figure 3 Development Patterns (Population and Employment Density) Influencing Transit Service Design

Source: 2011 LEHD; 2010 Census SF1 100% data; TIGER/Line Files; ESRI; ODOT

Note: The "defined transit service area" indicates the official boundaries of the agency service area and does not necessarily indicate the coverage of the current routes in operation.
SUMMIT COUNTY

Overview

– Summit County is located in northeast Ohio.
– Akron is the largest city in the county and the county seat; Summit County is part of the Akron Metropolitan Statistical Area.
– The nearest large metropolitan area is Cleveland, OH, which is located about 40 miles north of Akron.

Factors Influencing Transit Reliance and Demand

Employment, Demographics and Socio-Economic Characteristics

– Summit County's population has decreased very little (< 1%) since 2000.
– Summit County’s youth population has declined overall in the past 12 years, and now represents 16.7% of the county population versus 18.4% in 2000.
– The number of older adults aged 65+ increased by a little over 5% but still represents around 14 – 15 % of the county population.
– Low-incomes grew drastically more prevalent since 2000, with an increase of almost 40,000 low-income individuals (~45% change). This group now represents nearly a quarter of Summit County’s total population. Overall, the county is worse off today than in the past decade but remains close to an average county in Ohio (24.8%). The number of households without a car also grew somewhat.

Figure 1 Selected County Demographic and Socio-Economic Characteristics: Historical Trends

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>542,899</td>
<td>544,761</td>
<td>541,230</td>
<td>↓ 1,669</td>
</tr>
<tr>
<td>Youths (5-17)</td>
<td>99,984 (18.4%)</td>
<td>97,080 (17.8%)</td>
<td>90,170 (16.7%)</td>
<td>↓ 9,814 (↓1.8)</td>
</tr>
<tr>
<td>Older Adults (65+)</td>
<td>76,572 (14.1%)</td>
<td>75,700 (13.9%)</td>
<td>80,782 (14.9%)</td>
<td>↑ 4,210 (↑0.8)</td>
</tr>
<tr>
<td>Persons with Disabilities^</td>
<td>89,120 (17.8%)</td>
<td>77,660 (15.3%)</td>
<td>68,342 (12.7%)</td>
<td>-</td>
</tr>
<tr>
<td>Low-Income Individuals†</td>
<td>88,601 (16.6%)</td>
<td>110,125 (20.5%)</td>
<td>128,459 (24.1%)</td>
<td>↑ 39,858 (↑7.5)</td>
</tr>
<tr>
<td>Zero-Vehicle Households‡</td>
<td>17,821 (8.2%)</td>
<td>16,825 (7.6%)</td>
<td>19,703 (9.0%)</td>
<td>↑ 1,882 (↑0.8)</td>
</tr>
</tbody>
</table>

Sources: 2000 Census, SF1 100% data & SF3 sample data; 2007 ACS 3-year estimates; 2012 ACS 3-year estimates

*2007 ACS estimates are weighted based on 2000 Census 100% data whereas 2012 ACS estimates are weighted based on 2010 Census 100% data. The Census asks users to use caution when making comparisons across a decennial census year and warns that the estimates may not be strictly comparable.

^The disability questions asked on the 2000 Census and ACS forms through 2007 were substantially different from the questions asked on the 2008 ACS form and later (including the 2010 Census). Therefore, one cannot say with certainty what changes occurred to the prevalence of disabilities between 2000 and 2012.

†Defined as all family members if the family income is less than 1.5 times the poverty threshold set by the federal government.

‡Note that the data reported here are households and the percentage = (zero-vehicle households)/(total households in the county).
It is impossible to conclude with certainty the historical trend of the prevalence of people with disabilities. However, accounting for sampling error and considering results from 2000 and 2007, in all likelihood at least 12% of the current population in Jefferson County has some disability.

According to 2011 Longitudinal Employer-Household Dynamics (LEHD) data, Summit County had 257,457 jobs within the county. In that same year, 103,241 residents of Summit County were employed outside of the county, which accounts for 43.6% of residents who are employed.

Based on a combined measure of low-income individuals, zero-vehicle households, persons with disabilities, and adults aged 65 and over, the areas most reliant on transit within Summit County are various block groups in Akron and its surrounding communities, including Cuyahoga Falls, Munroe Falls, Tallmadge, and Barberton (see Figure 2).

Other areas showing a moderate to high transit reliance within Summit County include Stow, Fairlawn, Hudson, and most of the city of Akron.

The Cleveland area in Cuyahoga County north of Akron shows high to very high transit reliance. Small communities surrounding Akron and outside of Summit County to the south, west, and east also show moderate transit reliance.

Transit Supportive Development Patterns

Summit County has high density in the city of Akron. The county shows higher densities in multiple regions surrounding Akron, including Cuyahoga Falls, Barberton and Fairlawn. The northern half of the county around Twinsburg and Macedonia also has higher density, primarily due to its proximity to Cleveland. Of the roughly 541,200 people in the county, 96.1% live in areas of higher density and 3.9% are in areas of lower density (based on 2010 Census block data).

Pockets of very high population and employment densities exist throughout Akron and its surrounding communities. Though often mixed with areas of slightly lower density, Figure 3 suggests that, based on national evidence, a widespread ability for the Akron metro area to support transit service at a frequency of every 30 minutes or less.

Small areas of transit supportive densities, some supporting service at 30-minutes or less, are common in the Cleveland-Akron and Akron-Canton corridors – Macedonia, Hudson, Stow, and Green, for example. However, deviated-fixed-route (orange on Figure 3) service may be more appropriate than standard fixed-route (red on Figure 3) services in some areas due to their size and/or location.

Cleveland to the north of Summit County is highly transit supportive. In addition, Kent, North Canton, Wadsworth, and Medina, all outside of Summit County, support transit service at a frequency of 60-minutes or less.

Existing Transit Services

Transit service (fixed-route and paratransit) is available through the Akron METRO Regional Transit Authority (METRO) with service that covers most of Summit County.

METRO offers a demand response service called Call-A-Bus in the northern part of the county for the general public. METRO also provides county-wide demand response service known as SCAT for seniors and people with disabilities only.
METRO operating characteristics:

- Twenty-three local bus routes, with all but one route operating to/from downtown Akron, serving mostly the cities of Akron, Barberton and Cuyahoga Falls, Monday - Friday, 4:45 AM - 1:00 AM; Saturday, 5:30 AM - 10:30 PM; and Sunday, 9:00 AM - 8:00 PM
- Local routes generally operate at a 60-minute frequency or better on weekdays
- Three neighborhood circulators, one in each community of Stow, Chapel Hill, and Montrose; operating hours vary by community
- Six commuter routes serving outer suburban areas of the county and downtown Akron, Monday – Friday, 5:30 AM – 1:00 AM
- Two express routes to destinations in and around downtown Cleveland, Monday – Friday, 5:50 AM – 7:30 PM
- Five grocery bus routes, one per weekday, operate between senior apartment complexes and nearby grocery stores
- Late-night zone service from the Downtown Transit Center to a bus stop on any of the METRO routes that normally leave from the Downtown Transit Center, Monday – Friday, 12:00 AM – 1:00 AM
- Complementary ADA paratransit service within ¾-mile and during the same operating times of their fixed-routes
- Call-A-Bus demand response service in the Macedonia, Twinsburg, Northfield, and Reminderville, Monday – Friday, 8:00 AM – 4:00 PM
- SCAT demand response service for seniors and people with disabilities, Monday – Friday, operating hours vary by community

Local funding is provided through local sales tax, contributing about 85% of the total funding.

2012 Transit Riders per Capita\(^1\): 10.12

2012 Operating Expenditure per Capita\(^1\): $84.11

Opportunities, Challenges, and Needs

- Summit County’s population has been relatively stable in the past 12 years, including the number of youths and older adults. However, the number of low-income individuals increased quite drastically and nearly a quarter of the county population is now low-income.
- The county is primarily urban, but the suburbanization of jobs and residences is a major challenge for transit. Though widespread transit supportive densities exist, they typically support deviated fixed-route to a greater degree than standard fixed-route service. Beyond downtown Akron, the highest densities mostly occur in small pockets.
- METRO would like to grow their toolbox for serving the suburban growth market, including serving reverse commute more effectively, but they are still in a rebuilding and restructure mode after funding shortfalls about five years ago. METRO has been looking at carpools, vanpools, etc. but is unsure what strategies to pursue.

\(^1\) Based on 2012 ACS estimates for Summit County (541,230).
Figure 2 Demographic and Socio-Economic Characteristics Affecting Reliance on Transit Service

Source: 2008 - 2012 5-year ACS Estimates; TIGER/Line Files; ESRI; ODOT
Figure 3 Development Patterns (Population and Employment Density) Influencing Transit Service Design

Potential Transit Service Design:
(based on Pop./Emp Density by Census Block)

- Demand response (> 60 min)
- Deviated fixed-route (30 - 60 min)
- Fixed-route (≤ 30 min)
- Defined transit service area

Source: 2011 LEHD; 2010 Census SF1 100% data; TIGER/Line Files; ESRI; ODOT

Note: The "defined transit service area" indicates the official boundaries of the agency service area and does not necessarily indicate the coverage of the current routes in operation.
The decline in manufacturing hit Akron hard. Even though there has been some resurgence in that sector, the plant locations are often hard to serve with transit. Employers in general have no incentive to consider the transportation needs of their employees.

METRO is also anxious about the growing senior market. The agency needs to adapt and figure out how to create cooperative and worthwhile partnerships with suburban and rural jurisdictions to serve the markets most in need. The communities have so far been able to provide their own transportation to pick up any slack from METRO, but no one knows how long these will last.

Nearly 44% of Summit County residents travel outside of Summit County for work, and regionalization is a challenge. They have added express services to Cleveland, which have been popular, but there is more to do.

With the University of Akron in downtown but no student pass, an untapped student market exists. The university charges a transportation fee that goes towards parking and one circulator route; the university says most of their students drive to school. Relationships have improved recently, and METRO is hopeful something will develop.
TRUMBULL COUNTY

Overview

— Trumbull County is located in northeastern Ohio on the border of Pennsylvania.
— Warren is the largest city in the county and is part of the Youngstown-Warren-Boardman, OH-PA Metropolitan Area.
— The nearest metropolitan area is Cleveland, which is located about 50 miles west of Warren.

Factors Influencing Transit Reliance and Demand

Employment, Demographics and Socio-Economic Characteristics

— Trumbull County’s population has decreased by more than 16,000 people since 2000, a 7.2% decrease.
— The number of youth has decreased by nearly 7,000, and youth now represent a smaller percentage of the population, a drop of nearly 2% from 2000.
— The number of adults aged 65+ increased over the past 12 years. The percentage of the population in this age category grew from 15.7% in 2000 to 17.8% in 2012.
— A greater share of people have low incomes today than in 2000, but the rate of zero-vehicle households has stayed the same. Overall, the county is worse off today than in the past decade and is slightly less well-off than an average Ohio county (24.8%).

Figure 1 Selected County Demographic and Socio-Economic Characteristics: Historical Trends

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>225,116</td>
<td>215,398</td>
<td>208,743</td>
<td>16,373</td>
</tr>
<tr>
<td>Youths (5-17)</td>
<td>41,043 (18.2%)</td>
<td>36,459 (16.9%)</td>
<td>34,088 (16.3%)</td>
<td>6,955 (1.9%)</td>
</tr>
<tr>
<td>Older Adults (65+)</td>
<td>35,438 (15.7%)</td>
<td>35,251 (16.4%)</td>
<td>37,110 (17.8%)</td>
<td>1,672 (2.0%)</td>
</tr>
<tr>
<td>Persons with Disabilities*</td>
<td>39,747 (19.2%)</td>
<td>32,824 (16.4%)</td>
<td>29,574 (14.4%)</td>
<td>-</td>
</tr>
<tr>
<td>Low-Income Individuals†</td>
<td>40,333 (18.3%)</td>
<td>45,342 (21.5%)</td>
<td>55,752 (27.3%)</td>
<td>15,419 (9.0%)</td>
</tr>
<tr>
<td>Zero-Vehicle Households‡</td>
<td>6,211 (7.0%)</td>
<td>4,873 (5.6%)</td>
<td>6,194 (7.2%)</td>
<td>17 (0.2%)</td>
</tr>
</tbody>
</table>

Sources: 2000 Census, SF1 100% data & SF3 sample data; 2007 ACS 3-year estimates; 2012 ACS 3-year estimates
*2007 ACS estimates are weighted based on 2000 Census 100% data whereas 2012 ACS estimates are weighted based on 2010 Census 100% data. The Census asks users to use caution when making comparisons across a decennial census year and warns that the estimates may not be strictly comparable.
*The disability questions asked on the 2000 Census and ACS forms through 2007 were substantially different from the questions asked on the 2008 ACS form and later (including the 2010 Census). Therefore, one cannot say with certainty what changes occurred to the prevalence of disabilities between 2000 and 2012.
†Defined as all family members if the family income is less than 1.5 times the poverty threshold set by the federal government.
‡Note that the data reported here are households and the percentage = (zero-vehicle households)/(total households in the county).
It is impossible to conclude with certainty the historical trend of the prevalence of people with disabilities. However, accounting for sampling error and considering results from 2000 and 2007, in all likelihood at least 14% of the current population in Trumbull County has some disability.

According to 2011 Longitudinal Employer-Household Dynamics (LEHD) data, Trumbull County had 72,179 jobs within the county. In that same year, 40,669 residents of Trumbull County were employed outside of the county, which accounts for 50.7% of residents who are employed.

Based on a combined measure of low-income individuals, zero-vehicle households, persons with disabilities, and adults aged 65 and over, the areas most reliant on transit within Trumbull County are around Warren and Hubbard (see Figure 2).

Others areas showing a moderate to high transit reliance include Yankee Lake and the northwestern corner of the county. The area to the southwest of Niles also has a moderate level of transit reliance.

Areas outside of Trumbull County with indication of high transit reliance include areas around Youngstown, just to the south. Areas just west of the county line in Geauga and Portage counties also have a moderate level of transit reliance.

Transit Supportive Development Patterns

Trumbull County shows high density in the southern half of the county along the Mahoning River, from Warren to Niles to Girard. The northern half of the county is mostly low density. Of the roughly 208,700 people in the county, 72.7% live in areas of higher density and 27.3% are in areas of lower density (based on 2010 Census block data).

Warren has multiple areas with a population and employment density that, based on national evidence, suggests an ability to support transit service with a frequency of every 30 minutes or less (see Figure 3).

Other areas show demand for deviated fixed-route service (orange on Figure 3). These areas include Niles, Girard, Hubbard, and Cortland.

Similar to the results above, areas with transit supportive densities outside of the county are clustered around Youngstown and municipalities to the south of Youngstown.

Existing Transit Services

Niles-Trumbull Transit (NiTTs) offers demand response service throughout Trumbull County. The service is open to the general public, with discounted fares for riders from participating communities (Niles, McDonald, Cortland, Warren, Girard, Lordstown, Howland, Liberty, Hubbard, Bazetta, and Weathersfield).

Niles-Trumbull Transit operating characteristics:

- Monday – Friday, 7:00 AM - 6:00 PM
- Saturdays, Sundays, and holidays, 8:00 AM - 3:00 PM

Local funding is provided through the senior levy, a property tax dedicated to senior services, and contracts with county agencies. Participating villages and towns also contribute local matching funds in exchange for discounted fares for seniors in their communities.
2012 Transit Riders per Capita\(^1\): \textbf{0.24}

2012 Operating Expenditure per Capita\(^1\): \textbf{$8.91}

Opportunities, Challenges, and Needs

- Trumbull County has an older population and a declining population, making it hard to design a sustainable transit system to serve the population.
- Population and employment in Trumbull County are concentrated along the Highway 422 corridor between Warren and the Mahoning County line. Currently there are no transit connections from Warren to Youngstown and no coordination with WRTA.
- NiTTs has considered coordination with WRTA but would have a hard time meeting the demand that would be generated by a connection with a fixed route service when the marginal cost of additional demand response trips is so high.
- Trumbull County is in the Youngstown urbanized area, meaning it is eligible for 5307 funding. FTA funds must be divided between WRTA in Youngstown, Niles-Trumbull Transit, and also the Shenango Valley Shuttle Service in Pennsylvania.
- Niles-Trumbull Transit is not able to provide enough service to meet demand, which causes trip denials.

\(^1\) Based on 2012 ACS estimates for Trumbull County (208,743).
Figure 2 Demographic and Socio-Economic Characteristics Affecting Reliance on Transit Service

Source: 2008 - 2012 5-year ACS Estimates; TIGER/Line Files; ESRI; ODOT
Figure 3 Development Patterns (Population and Employment Density) Influencing Transit Service Design

Source: 2011 LEHD; 2010 Census SF1 100% data; TIGER/Line Files; ESRI; ODOT

Note: The “defined transit service area” indicates the official boundaries of the agency service area and does not necessarily indicate the coverage of the current routes in operation.
TUSCARAWAS COUNTY

Overview

- Tuscarawas County is located in east central Ohio and is bisected by the Tuscarawas River.
- New Philadelphia is the largest city in the county and is part of the New Philadelphia-Dover Micropolitan Statistical Area.
- The nearest metropolitan area is Akron, which is located about 50 miles north of New Philadelphia.

Factors Influencing Transit Reliance and Demand

Employment, Demographics and Socio-Economic Characteristics

- Tuscarawas County’s population has increased by more than 1,500 people since 2000, a 1.7% increase.
- The number of youth in Tuscarawas County has decreased by less than 1,000 since 2000, and youths now represent a slightly smaller percentage of the population.
- In the same time period, the number of older adults aged 65+ increased, and this group now represents a somewhat larger percentage of the population.
- A greater percentage of people have low-incomes today than in 2000, though more people own cars. The increase in low-income individuals is less severe in Tuscarawas County than in many other Ohio counties, but the percentage remains slightly worse (25.5%) than the average Ohio county (24.8%).

Figure 1 Selected County Demographic and Socio-Economic Characteristics: Historical Trends

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>90,914</td>
<td>91,330</td>
<td>92,481</td>
<td>1,567</td>
</tr>
<tr>
<td>Youths (5-17)</td>
<td>17,093</td>
<td>15,711</td>
<td>16,249</td>
<td>844 (-1.2)</td>
</tr>
<tr>
<td>Older Adults (65+)</td>
<td>13,599</td>
<td>14,309</td>
<td>15,333</td>
<td>1,734 (+1.6)</td>
</tr>
<tr>
<td>Persons with Disabilities^</td>
<td>15,208</td>
<td>13,143</td>
<td>11,532</td>
<td>-</td>
</tr>
<tr>
<td>Low-Income Individuals†</td>
<td>17,675</td>
<td>20,435</td>
<td>23,278</td>
<td>5,603 (+5.8)</td>
</tr>
<tr>
<td>Zero-Vehicle Households‡</td>
<td>2,608</td>
<td>2,408</td>
<td>2,036</td>
<td>572 (-1.7)</td>
</tr>
</tbody>
</table>

Sources: 2000 Census, SF1 100% data & SF3 sample data; 2007 ACS 3-year estimates; 2012 ACS 3-year estimates

*2007 ACS estimates are weighted based on 2000 Census 100% data whereas 2012 ACS estimates are weighted based on 2010 Census 100% data. The Census asks users to use caution when making comparisons across a decennial census year and warns that the estimates may not be strictly comparable.

^The disability questions asked on the 2000 Census and ACS forms through 2007 were substantially different from the questions asked on the 2008 ACS form and later (including the 2010 Census). Therefore, one cannot say with certainty what changes occurred to the prevalence of disabilities between 2000 and 2012.

†Defined as all family members if the family income is less than 1.5 times the poverty threshold set by the federal government.

‡Note that the data reported here are households and the percentage = (zero-vehicle households)/(total households in the county).
It is impossible to conclude with certainty the historical trend of the prevalence of people with disabilities. However, accounting for sampling error and considering results from 2000 and 2007, in all likelihood at least 12% of the current population in Tuscarawas County has some disability.

According to 2011 Longitudinal Employer-Household Dynamics (LEHD) data, Tuscarawas County had 34,122 jobs within the county. In that same year, 23,829 residents of Tuscarawas County were employed outside of the county, which accounts for 53.4% of residents who are employed.

Based on a combined measure of low-income individuals, zero-vehicle households, persons with disabilities, and adults aged 65 and over, the areas most reliant on transit within Tuscarawas County are Dover and Mineral City (see Figure 2). These communities exhibit moderate levels of reliance.

Others areas showing a moderate to moderate-low reliance on transit are areas around New Philadelphia and parts of the northwestern corner and southern border of the county.

Holmes County, located to the west of Tuscarawas, show moderate-high transit reliance.

Transit Supportive Development Patterns

- Tuscarawas County has large areas of higher density areas around the cities of New Philadelphia and Dover. The west and south of the county is primarily lower density. Of the 92,500 people in the county, 58.4% live in higher density areas and 41.6% are in lower density areas (based on 2010 Census block data).
- New Philadelphia and Dover are the only areas with population and employment densities that, based on national evidence, suggest an ability to support transit service with a frequency of every 60 minutes or less (see Figure 3).
- Many of the areas that indicate a demand for transit service suggest that deviated-fixed-route (orange on Figure 3) service may be more appropriate than standard fixed-route (red on Figure 3) services. The corridor from Dennison to Strasburg shows land use patterns that support deviated fixed-route service.
- Similar to the results above, areas with transit supportive densities outside of the county are West Lafayette and Massillon.

Existing Transit Services

- Transit service is not provided in Tuscarawas County.
- 2012 Transit Riders per Capita: NA
- 2012 Operating Expenditure per Capita: NA

Opportunities, Challenges, and Needs

- Tuscarawas County population has increased moderately since 2000.
- Outside of concentration of population around New Philadelphia and Dover, the rest of the county is low-density.

1 Based on 2012 ACS estimates for Tuscarawas County (92,481).
A key challenge facing Tuscarawas County is that, while socio-economic characteristics suggest a reliance on public transportation, the development patterns mean that it would be difficult to operate cost effective transit service. However, similarly positioned counties in Ohio operate demand response service for people living in rural areas.
Figure 2: Demographic and Socio-Economic Characteristics Affecting Reliance on Transit Service

Source: 2008 - 2012 5-year ACS Estimates; TIGER/Line Files; ESRI; ODOT
Figure 3 Development Patterns (Population and Employment Density) Influencing Transit Service Design

Source: 2011 LEHD; 2010 Census SF1 100% data; TIGER/Line Files; ESRI; ODOT

Note: The “defined transit service area” indicates the official boundaries of the agency service area and does not necessarily indicate the coverage of the current routes in operation.
WAYNE COUNTY

Overview

─ Wayne County in north central Ohio, southwest of Cleveland.
─ Wooster is the largest city in the county and is part of the Wooster Metropolitan Statistical Area.
─ Wayne County is less than 40 miles southwest of Akron, the closest metropolitan area.

Factors Influencing Transit Reliance and Demand

Employment, Demographics and Socio-Economic Characteristics

─ Wayne County’s population has increased by more than 3,100 people since 2000, a 2.8% increase.
─ The number of youth in Wayne County has decreased by more than 1,700, and youths now represent a smaller percentage of the population by two full percentage points.
─ The percentage of older adults age 65+ has increased from 12.2% in 2000 to 15.0% in 2012.
─ A greater percentage of people have low-incomes today than in 2000, and fewer people own cars. Overall, the county is somewhat worse off today than in the past decade but remains slightly wealthier than an average county in Ohio, where low-income individuals represent 24.8% of the county population.

Figure 1 Selected County Demographic and Socio-Economic Characteristics: Historical Trends

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>111,564</td>
<td>113,471</td>
<td>114,674</td>
<td>3,110</td>
</tr>
<tr>
<td>Youths (5-17)</td>
<td>22,801 (20.4%)</td>
<td>20,918 (18.4%)</td>
<td>21,088 (18.4%)</td>
<td>-1,713 (-2.0)</td>
</tr>
<tr>
<td>Older Adults (65+)</td>
<td>13,627 (12.2%)</td>
<td>15,016 (13.2%)</td>
<td>17,247 (15.0%)</td>
<td>3,620 (+2.8)</td>
</tr>
<tr>
<td>Persons with Disabilities^</td>
<td>16,320 (15.9%)</td>
<td>14,208 (13.6%)</td>
<td>13,924 (12.3%)</td>
<td>-756 (-0.5)</td>
</tr>
<tr>
<td>Low-Income Individuals†</td>
<td>16,926 (15.6%)</td>
<td>22,624 (20.4%)</td>
<td>25,803 (23.3%)</td>
<td>8,877 (+7.7)</td>
</tr>
<tr>
<td>Zero-Vehicle Households‡</td>
<td>3,264 (8.1%)</td>
<td>3,381 (8.0%)</td>
<td>3,592 (8.5%)</td>
<td>328 (+0.5)</td>
</tr>
</tbody>
</table>

Sources: 2000 Census, SF1 100% data & SF3 sample data; 2007 ACS 3-year estimates; 2012 ACS 3-year estimates

*2007 ACS estimates are weighted based on 2000 Census 100% data whereas 2012 ACS estimates are weighted based on 2010 Census 100% data. The Census asks users to use caution when making comparisons across a decennial census year and warns that the estimates may not be strictly comparable.

^The disability questions asked on the 2000 Census and ACS forms through 2007 were substantially different from the questions asked on the 2008 ACS form and later (including the 2010 Census). Therefore, one cannot say with certainty what changes occurred to the prevalence of disabilities between 2000 and 2012.

†Defined as all family members if the family income is less than 1.5 times the poverty threshold set by the federal government.

‡Note that the data reported here are households and the percentage = (zero-vehicle households)/(total households in the county).
It is impossible to conclude with certainty the historical trend of the prevalence of people with disabilities. However, accounting for sampling error and considering results from 2000 and 2007, in all likelihood at least 12% of the current population in Wayne County has some disability.

According to 2011 Longitudinal Employer-Household Dynamics (LEHD) data, Wayne County had 42,510 jobs within the county. In that same year, 24,739 residents of Wayne County were employed outside of the county, which accounts for 51.3% of residents who are employed.

Based on a combined measure of low-income individuals, zero-vehicle households, persons with disabilities, and adults aged 65 and over, the most transit reliant area within Wayne County is Wooster (see Figure 2).

Others areas within the county showing a moderate to high reliance on transit include the area along the southern border of the county and Orville.

Areas just outside the county, such as northern Holmes County and eastern Ashland County, also show a moderate to high transit reliance.

Transit Supportive Development Patterns

Wayne County is primarily lower density with areas of higher density around the cities of Wooster and Orrville. Of the roughly 114,700 people in the county, 49.0% live in high density areas and 51.0% are in lower density areas (based on 2010 Census block data).

Wooster and Orrville are the only areas with population and employment densities that, based on national evidence, suggest an ability to support transit service with a frequency of every 60 minutes or less (see Figure 3).

Many of the areas that indicate a demand for transit service suggest that deviated fixed route service (orange on Figure 3) may be more appropriate than standard fixed route services (red on Figure 3).

Similar to the results above, areas with transit supportive densities outside of the county are Akron, Barberton, Wadsworth, Ashland, and Massillon.

Existing Transit Services

State-Funded Transit service is not provided in Wayne County.

2012 Transit Riders per Capita*: NA

2012 Operating Expenditure per Capita*: NA

A hospitality shuttle serves several locations in the city of Wooster, and receives some support from the city. The service receives no funding from ODOT.

Opportunities, Challenges, and Needs

Wayne County is growing and is slightly better off than the average Ohio county.

Transit reliance is moderate to high near Wooster and in the south-southeast part of the county, but with no transit service currently available in the county, access to jobs, retail, and city services might be limited. Individuals without a car likely forego trips

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1 Based on 2012 ACS estimates for Wayne County (114,674).
or rely on friends, family, etc. to meet their needs. Individuals with a car can also benefit from access to transit, often by being able to save money.

— Wayne County is primarily low-density, with few concentrations of residents and jobs outside of Wooster and Orville.

— Densities in some areas of Wayne County can support public transit, but the development patterns mean that it would be difficult for such a service to operate cost-effectively.

— Akron is located 40 miles southwest of Wooster, and is likely a primary center of jobs and activities. More than half of jobs are located outside Wayne County.
Figure 2 Demographic and Socio-Economic Characteristics Affecting Reliance on Transit Service

Source: 2008 - 2012 5-year ACS Estimates; TIGER/Line Files; ESRI; ODOT
Figure 3 Development Patterns (Population and Employment Density) Influencing Transit Service Design

Source: 2011 LEHD; 2010 Census SF1 100% data; TIGER/Line Files; ESRI; ODOT

Note: The “defined transit service area” indicates the official boundaries of the agency service area and does not necessarily indicate the coverage of the current routes in operation.