

## 6 REGIONAL COMMUTE PATTERNS

### INTRODUCTION

One of the challenges for this study, which has a primary goal of looking at commute opportunities in MnDOT District 3, is that in some portions of the study area, the majority of commuters are actually traveling outside District 3 to locations in the Twin Cities. As a result, the corridor alternatives evaluated in Chapter 9 include those wholly within District 3 and those that travel beyond District 3.

Based on the reports and data collected from a wide range of different sources, this chapter synthesizes information about regional commute patterns.

### REGIONAL COMMUTE CHARACTERISTICS

With a majority of employers concentrated in only a handful of counties, out-of-county journeys to work are typical for most residents of District 3. In five counties, more than half the working population leaves the county for employment (See Figure 6-1). Nearly 70% of Sherburne County residents commute to jobs outside of Sherburne County.

Commuting out-of-county roughly corresponds to the average commute time, especially for counties near the Twin Cities, such as Wright, Sherburne, and Isanti, but also including Kanabec. One exception is Benton County, which has a high percentage of out-of-county commuters but a relatively low average commute time of 22.6 minutes.

Figure 6-2 shows commute times are much longer for counties near the Twin Cities. Counties with a more direct highway corridor, such as Wright with I-94 and Mille Lacs with Highway 169, have a slightly lower average commute time than counties bordering the Twin Cities metropolitan region without a major direct link such as Kanabec and Isanti. Sherburne also has an average commute time of over 30 minutes even with access through Highway 10.

Residents of Benton, Morrison, and Todd Counties commute between 22 and 25 minutes on average. Since few large employers are located in these counties, residents must drive to other areas for employment. Conversely, Stearns County has a high number of both jobs and residents and, as a result, a lower average commute time.

**Figure 6-1 Out-of-County Commutes**

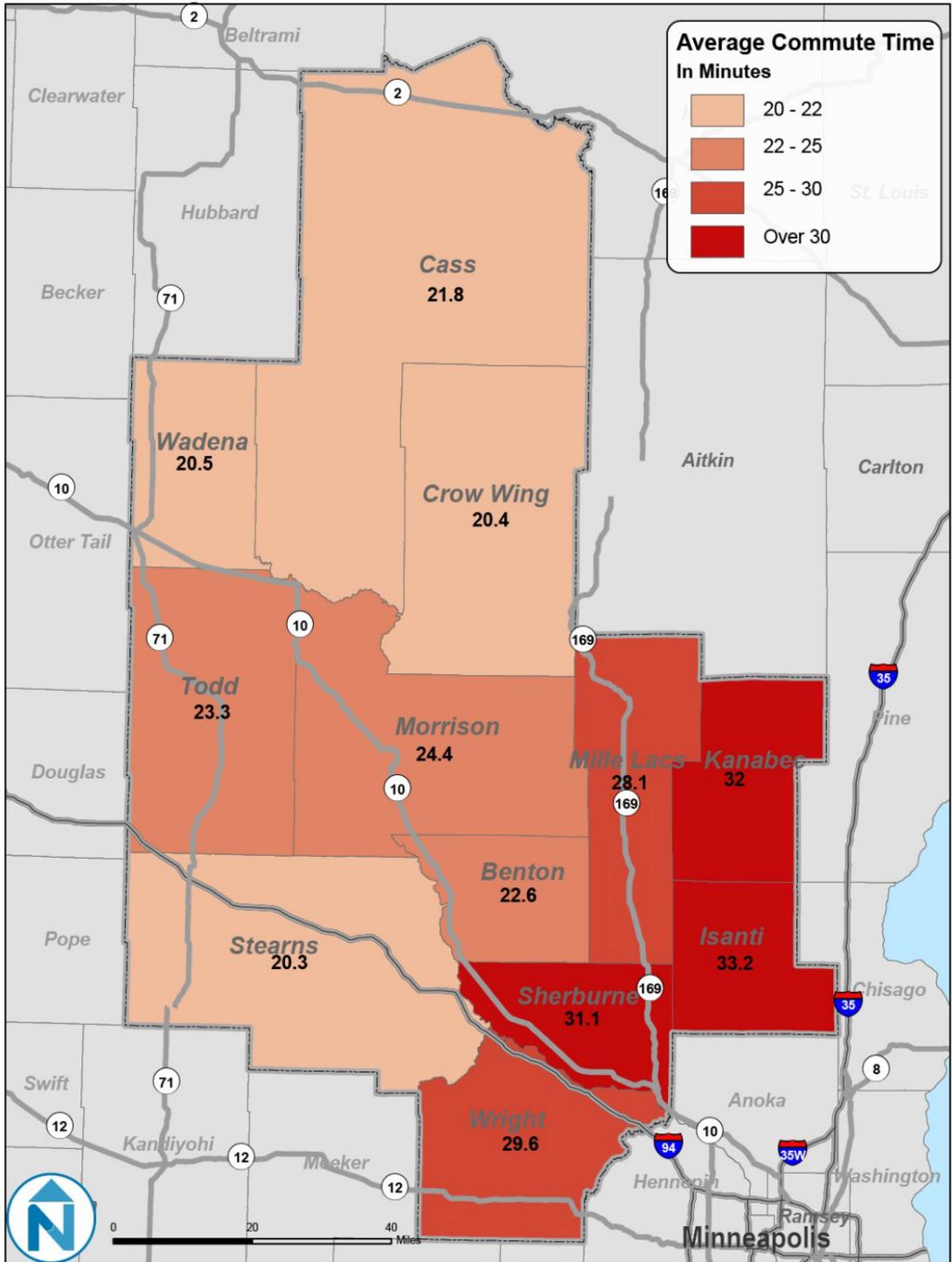
County	Percent Commuting Out-of-County	Average Commute Time (Mins)
Benton	63%	22.6
Cass	40%	21.0
Crow Wing	14%	22.4
Isanti	62%	33.2
Kanabec	52%	32
Mille Lacs	44%	28.1
Morrison	36%	24.4
Sherburne	70%	31.1
Stearns	38%	20.3
Todd	43%	23.3
Wadena	31%	20.5
Wright	58%	29.6

Source: DEED

With regard to commutes, two relevant studies were identified. In the first, *Minnesota Economic Trend* prepared a summary of commutes in June 2011 entitled *Commuting to Work: The Long and Short of It*. The analysis covered Central Minnesota counties, including Benton, Isanti, Kanabec, Mille Lacs, Sherburne, Stearns and Wright Counties. The study noted that between 1990 and 2010, this region's population grew by twice the rate of the state as a whole. Six counties in District 3 have longer commute times than Minnesota as a whole: Isanti, Kanabec, Sherburne, Wright, Benton and Mille Lacs, with commutes between 22.6 minutes and 33.2 minutes compared to the state average of 22.2 minutes. The research noted that these same counties had a greater percentage of their residents working outside of the county than the state average of 33.7 % working outside of the home county.

The second relevant study is the Brainerd-Baxter Area Origin-Destination Study, completed in 2006 for MnDOT District 3. The primary focus of the study was to examine motorist travel patterns in and around the Brainerd-Baxter area to inform highway investment decisions. More than 29,000 interviews were conducted of weekday travelers on highways in the area, including highways 371, 210, 25, and 18 as well as county roads 45, 49, 3, and 77, among others. The data did not have a work travel or commuter focus; however, of the raw data provided, nearly 12,000 drivers traveled into the Brainerd-Baxter area for work – nearly 41% of the total surveyed. One of the key findings listed by the study is the a majority of weekday trips into the area cite three primary zones as their destination: the Baxter commercial district on Highway 371; an area that includes St. Joseph's Hospital, Brainerd Mall, other commercial establishments, and Brainerd city offices; and downtown Brainerd, where county offices are located. The study cites these examples as evidence of commuter trips.

**Figure 6-2 Average Commute Time by County**



Employment Data Sources: Mn DEED

## **ORIGINS AND DESTINATIONS**

Information was evaluated from several different sources to establish a profile of where people travel within District 3 and beyond the district. Overall, the findings show that major employment hubs for residents of the southern portion of District 3 is the Minneapolis-St. Paul area, while residents outside of St. Cloud tend to commute to St. Cloud. The greatest proportion of local commutes are within the Brainerd-Baxter area, but the area also attracts employees with longer distance commutes. Other noteworthy commuter destinations include Little Falls, the Cambridge area, and into Chisago County.

Getting people to consider alternative commute modes will be a challenge in District 3. The vast majority of people commuting to jobs drive alone; individuals commuting to schools are more likely to drive with others or even to take transit where services are available.

### **Basic Commuter Flows**

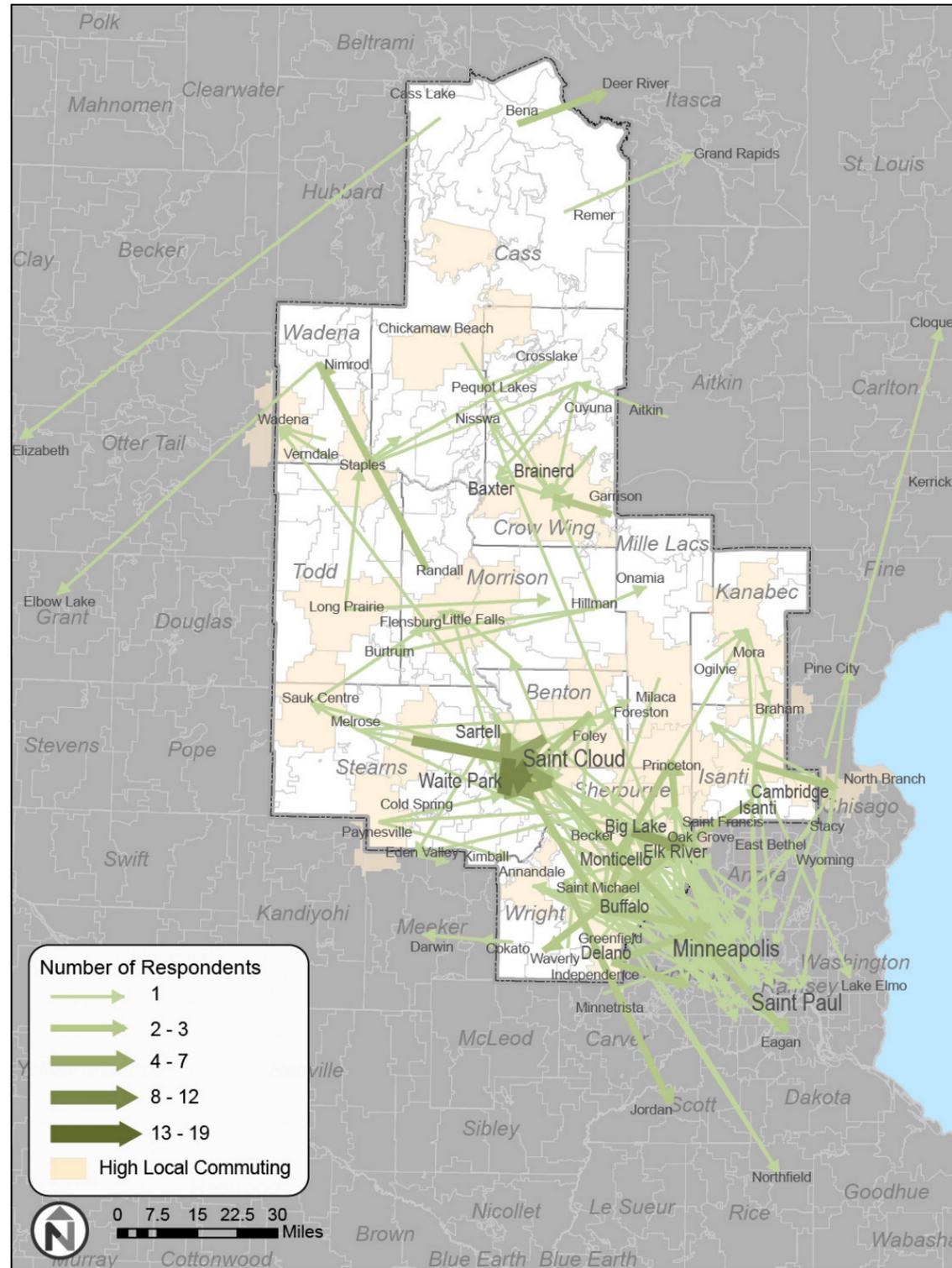
Inter-community and intra-community commute patterns are shown in Figure 6-3. The patterns are reported from the general population survey and listed by actual number of survey respondents. The sampling is based on population characteristics of the 12-county study area. The findings illustrate current commuter trends in District 3: significant commute activity exists to Minneapolis, St. Paul and many of the surrounding cities and suburban communities within the 7-county Twin Cities urban area. In addition, there is a significant proportion of commute activity between cities in Wright, Sherburne and Isanti Counties, with a significant proportion of the intercity commute activity along the Northstar Rail line and Highway 10 Corridor.

It should be noted that much of the journey to work activity takes place within particular communities, with many intra-community commutes made within the Brainerd-Baxter area and Elk River, as well as Little Falls, St. Cloud, Sartell, and the area east of Cambridge (in the North Branch area).

The relatively dispersed commute patterns within District 3 suggest there may be some challenges in identifying specific corridors for productive commuter transit services. Alternatives may include carpools, vanpools and other TDM measures that could be effective in changing the commuter behavior of people who currently drive alone.

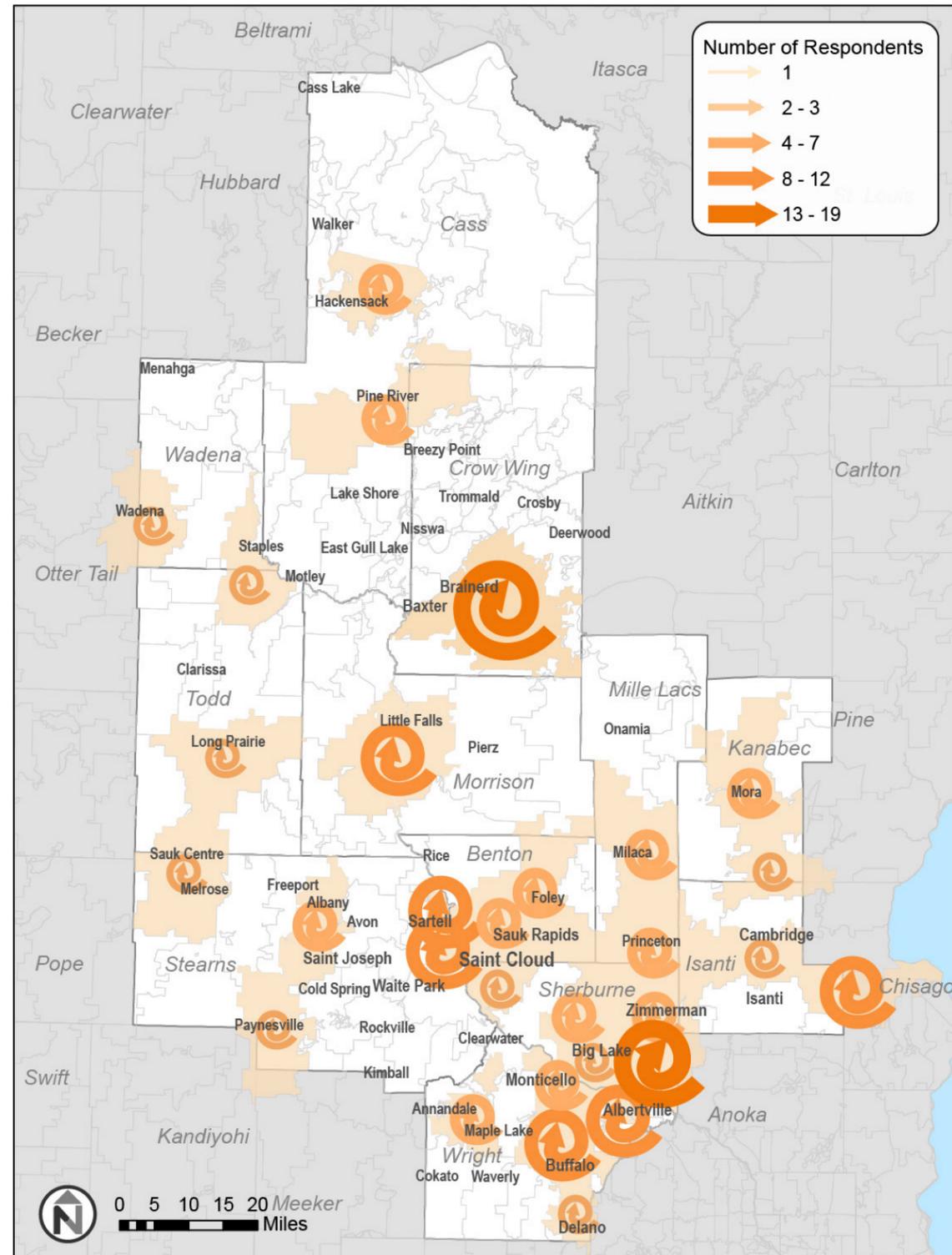
Figure 6-3 Survey Respondent Commutes by Zip Code

A. Inter-Community Commutes



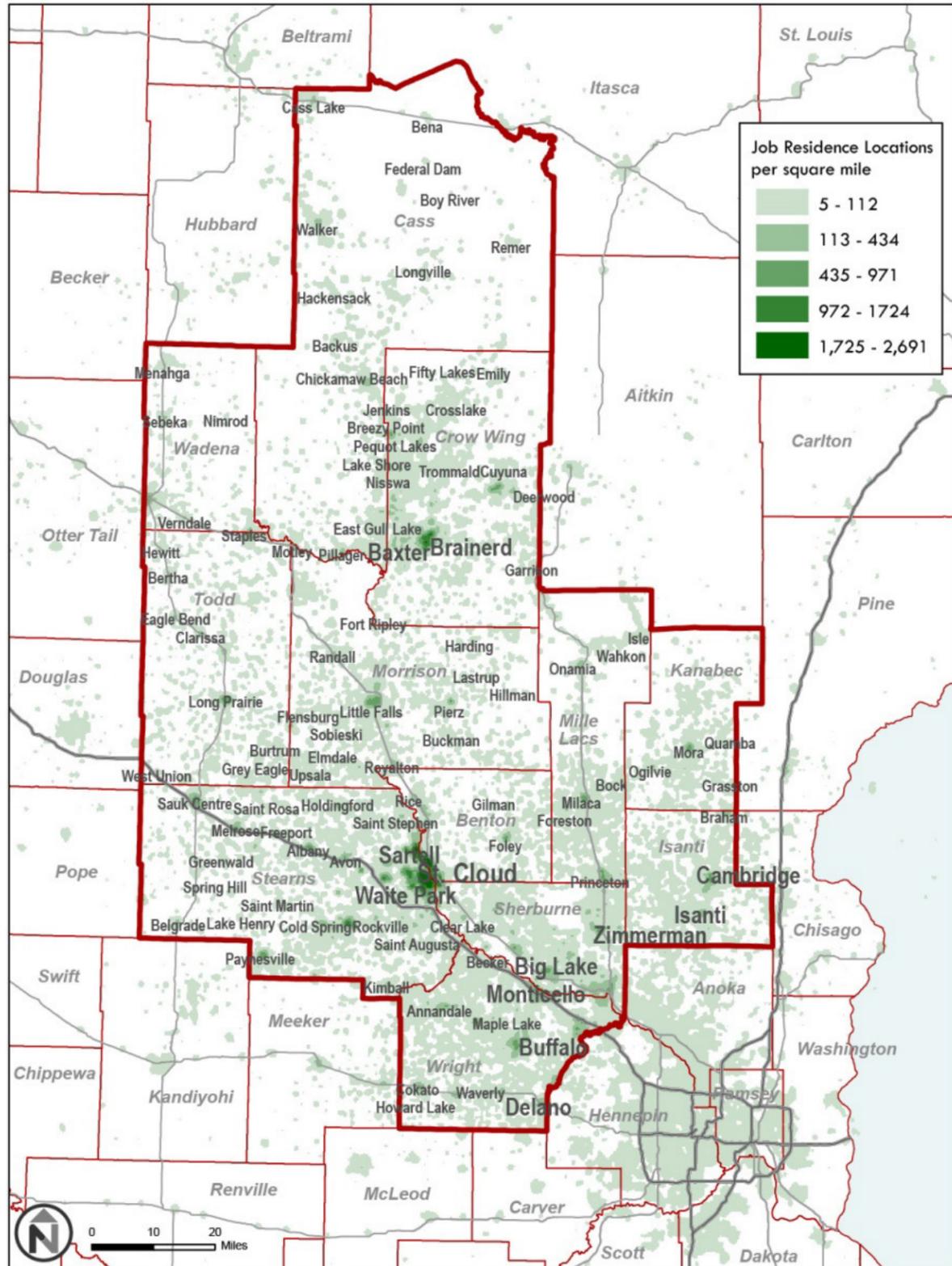
Source: Nelson\Nygaard General Public Survey, 2011

B. Intra-Community Commutes



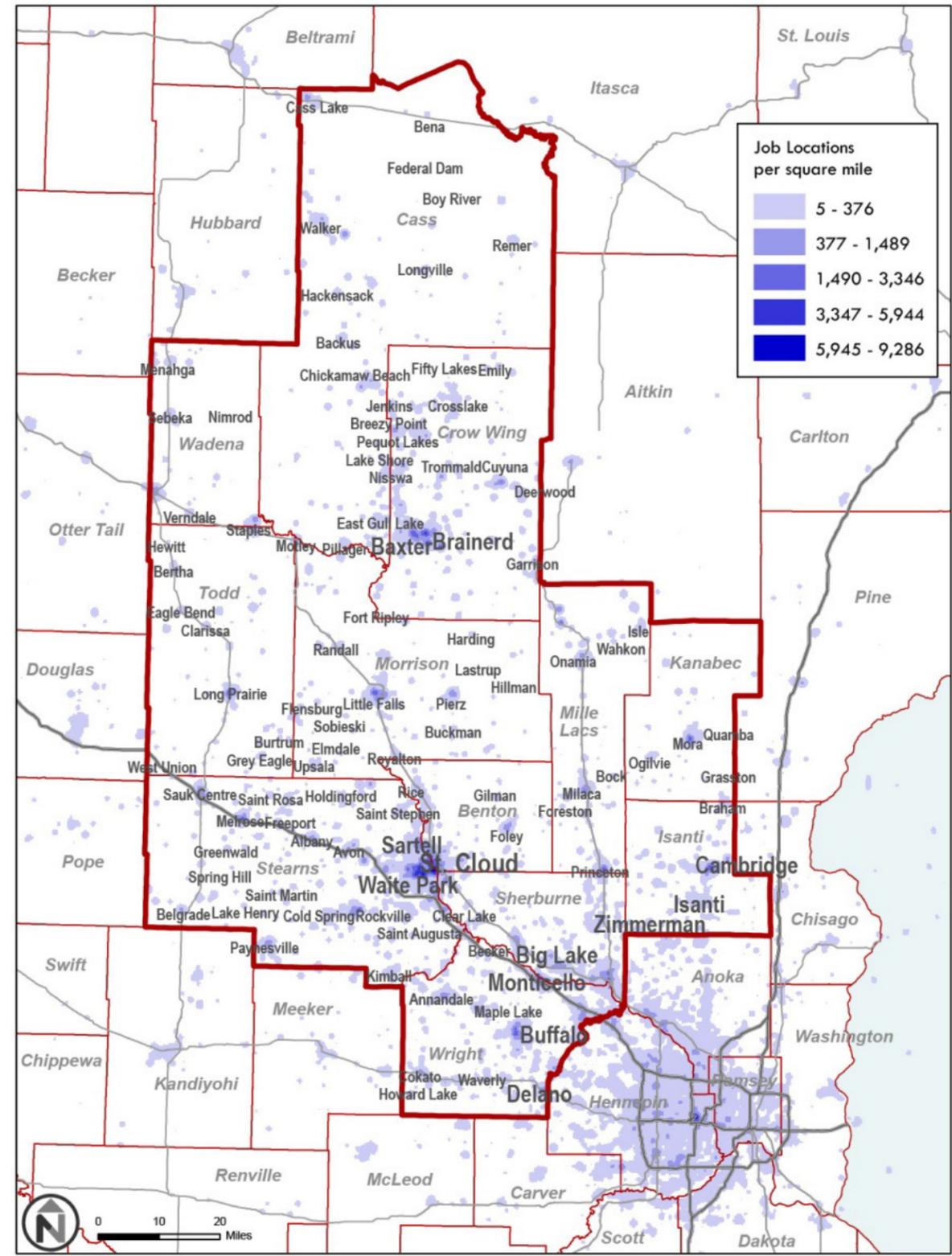
Source: Nelson\Nygaard General Public Survey, 2011

Figure 6-4 Places of Residence for District 3 Workers



Employment Data Source: LEHD 2009 (All Workers, All Jobs)

Figure 6-5 Employment Sites for District 3 Residents



Employment Data Source: LEHD 2009 (All Workers, All Jobs)

## **Longitudinal Employer-Household Dynamics**

In addition to the commute patterns from residential surveys, Longitudinal Employer-Household Dynamics (LEHD) data sets are published by the US Census Bureau. The data represents places of residence for workers in District 3 as well as places of work for District 3 residents.

### **District-Wide Commute Patterns**

Nearly 108,000 residents of the district commute outside of the region for employment, compared to over 180,000 residents working within the district. An additional 40,000 employees from other counties travel to District 3 for work.

As shown in Figure 6-4, St. Cloud and the Brainerd-Baxter area are the areas with the highest concentration of residents - they have the highest residential density. Smaller nodes of density are found in Little Falls, Long Prairie, Buffalo, Milaca, and Cambridge, as well as other smaller cities. Outside of cities, residential density of workers is spread relatively evenly, especially in counties like Wright, which has a high number of residents working in District 3, and residences are spread out over the entire county. Workers from outside the district come from both Minneapolis and other counties such as McLeod, Douglas, and Beltrami.

Employment sites for residents of District 3 are much more concentrated than places of residence. As shown in Figure 6-5, the densest concentration of employment sites is the St. Cloud metropolitan region, especially downtown St. Cloud and Sartell. A significant concentration is also present in the Brainerd-Baxter area.

Beyond the nodal concentrations of employment sites are the corridors along which employers are located, that the map makes evident. I-94 and Highway 10 are visible in the employment density pattern between St. Cloud and Minneapolis. Highway 55 through Wright County is also where many employers are located. Highway 371 north of the Brainerd-Baxter area is heavily populated with work sites, as well as Highway 169 through Mille Lacs County.

A large number of work sites are visible in the Twin Cities region, as well, though they are generally spread out throughout the metropolitan area.

### **Patterns for Specific Employment Centers**

The following maps show the home locations of workers in three primary areas of employment: St. Cloud, the Brainerd-Baxter region, and Minneapolis.

#### **St. Cloud Area**

In Figure 6-6, the blue line represents the general St. Cloud employment area used for this analysis. Within this blue line are a total of over 69,000 jobs. Of these, over 40,000 are held by residents of the area; just under 29,000 are held by residents from outside the area. The dots on the map display the residential locations of people holding jobs in the St. Cloud area. As the map displays, workers in St. Cloud generally live in the city and in Stearns County. A large number of St. Cloud workers also live in Benton, Sherburne, and Wright Counties, with some from Minneapolis as well. Over 18,000 residents of this area commute to various sites outside of the area for work.

It is worth noting that the greater St. Cloud area population is expected to grow by nearly 39,000 individuals (31%) between 2005 and 2035, with a 2035 total of 163,782 residents. Employment

growth in the area is expected to add 2.2 square miles of new commercial and office development, along with 2 square miles of industrial development and nearly just as much of unspecified (other) development. Many of the trips generated by this proposed new development may be localized as the St. Cloud APO anticipates 17.6 square miles of new residential development. Total trips generated by the new development is estimated to be nearly 2.3 million, almost double the existing 1.2 million trips in this area.

### **Brainerd-Baxter Area**

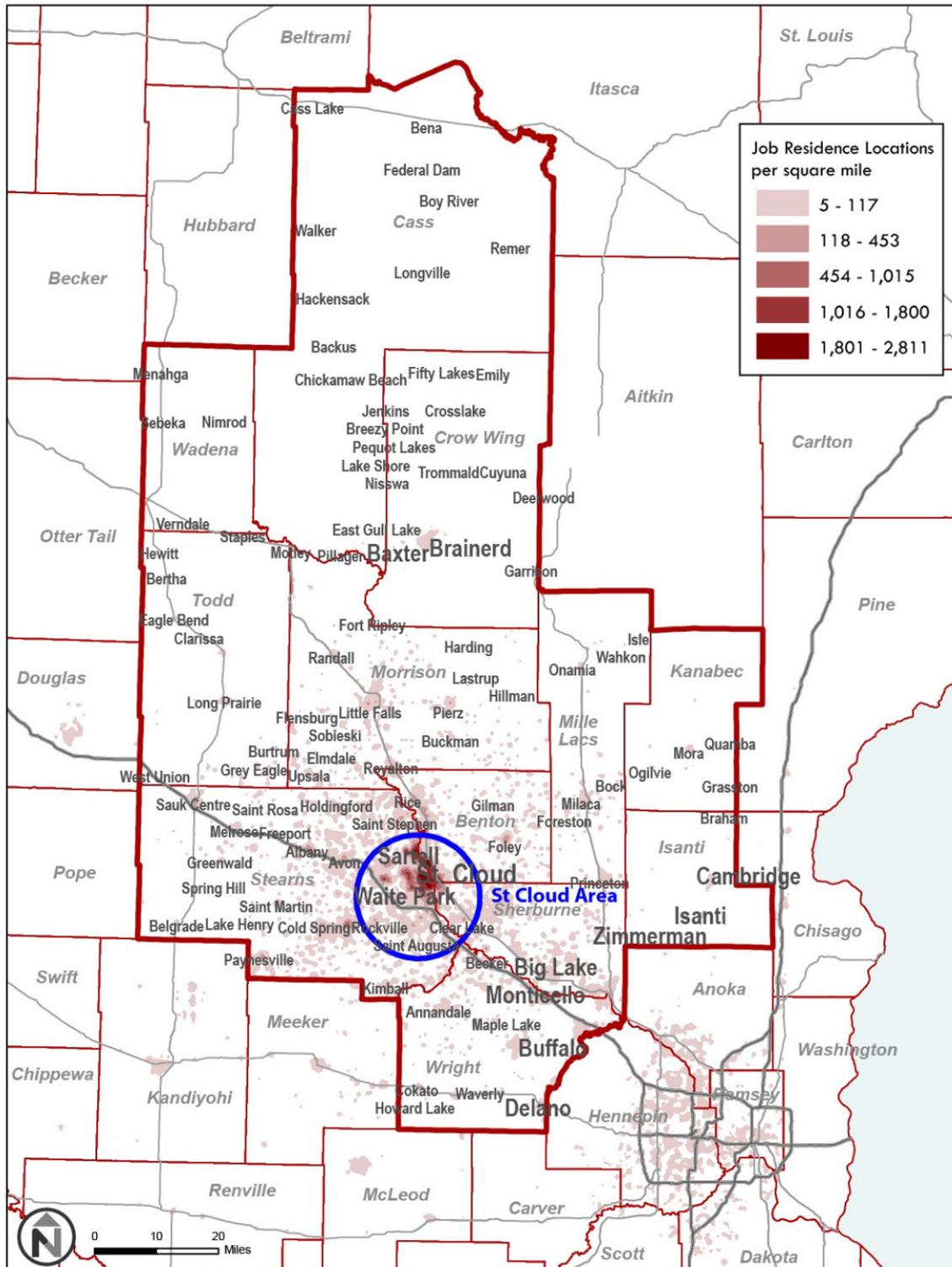
Figure 6-7 displays the same type of data for the Brainerd-Baxter area. A total of 17,600 jobs exist within the blue line on the map. Of these, nearly 7,000 are held by residents of the area. Nearly 11,000 of the jobs are held by residents of the surrounding region, as shown by the pink dots on the map. The dots show that a majority of workers traveling to the Brainerd-Baxter area for employment live in the area or north of Brainerd and Baxter in Crow Wing County. Some commuters from Cass County and a few from Morrison also travel there for work. A total of 4,500 residents of the Brainerd-Baxter area commute out of the area for work.

### **Twin Cities Area**

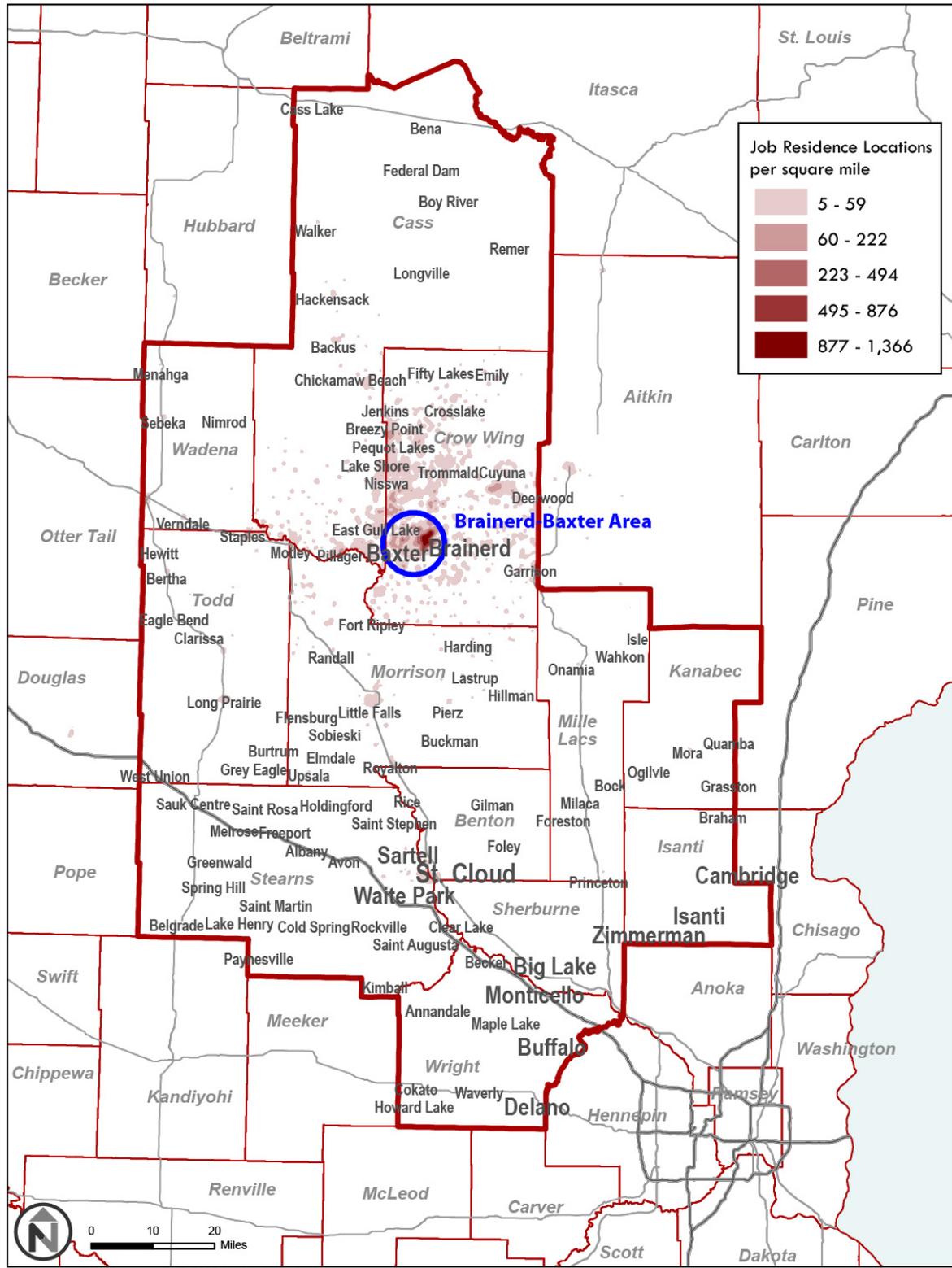
This commuter map in Figure 6-8 shows the home locations of workers traveling to the Twin Cities.

In District 3, Isanti, Sherburne, and Wright Counties are all home to a large number of commuters to the Twin Cities. St. Cloud and Stearns County, and to a lesser extent Benton, are also the residential locations of Twin Cities workers. Some residents of Kanabec, Morrison, and Mille Lacs Counties travel all the way to Minneapolis-St. Paul for employment.

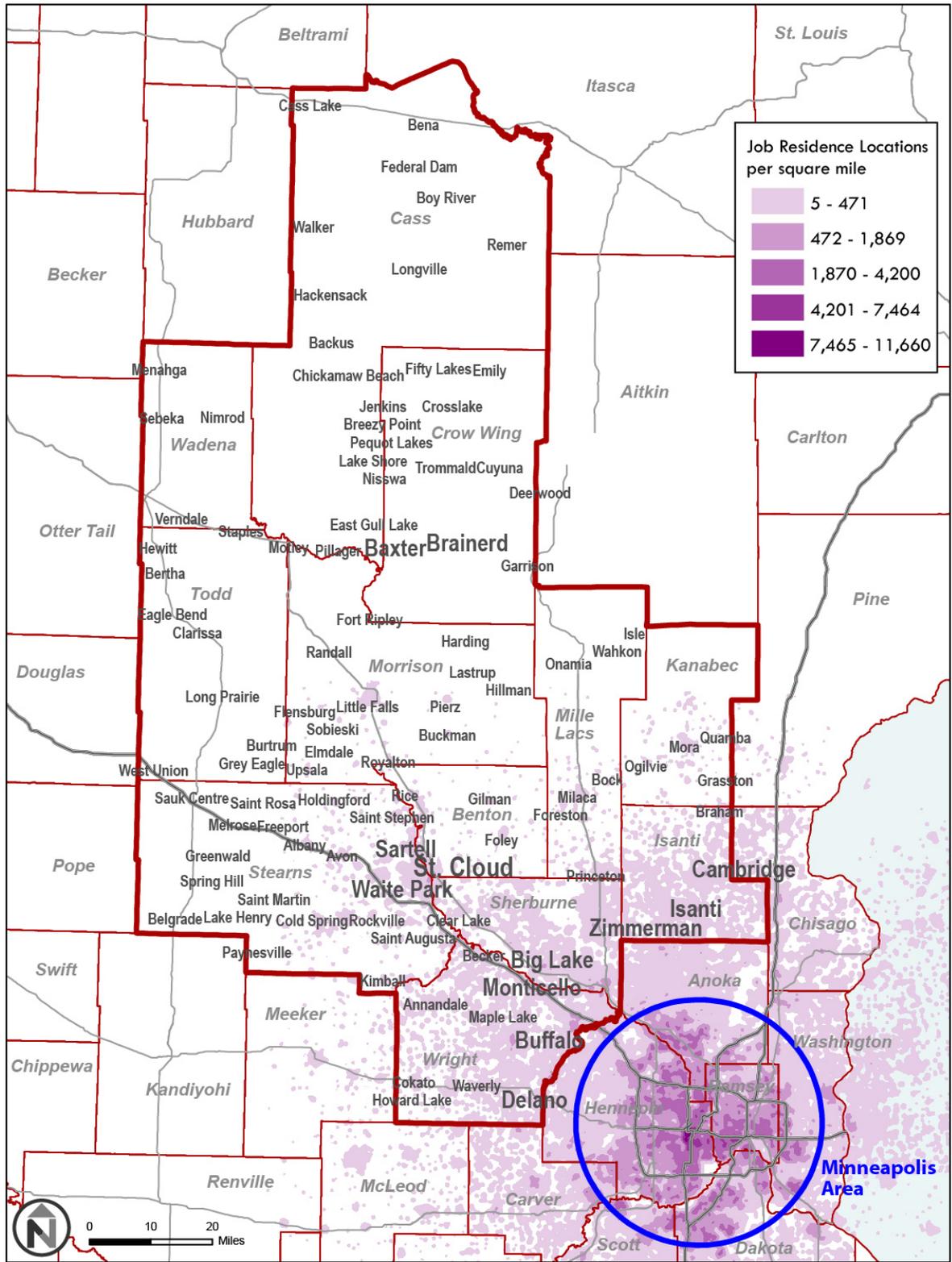
**Figure 6-6 Residences of Workers in St. Cloud Area**



**Figure 6-7 Residences of Workers in the Brainerd-Baxter Area**

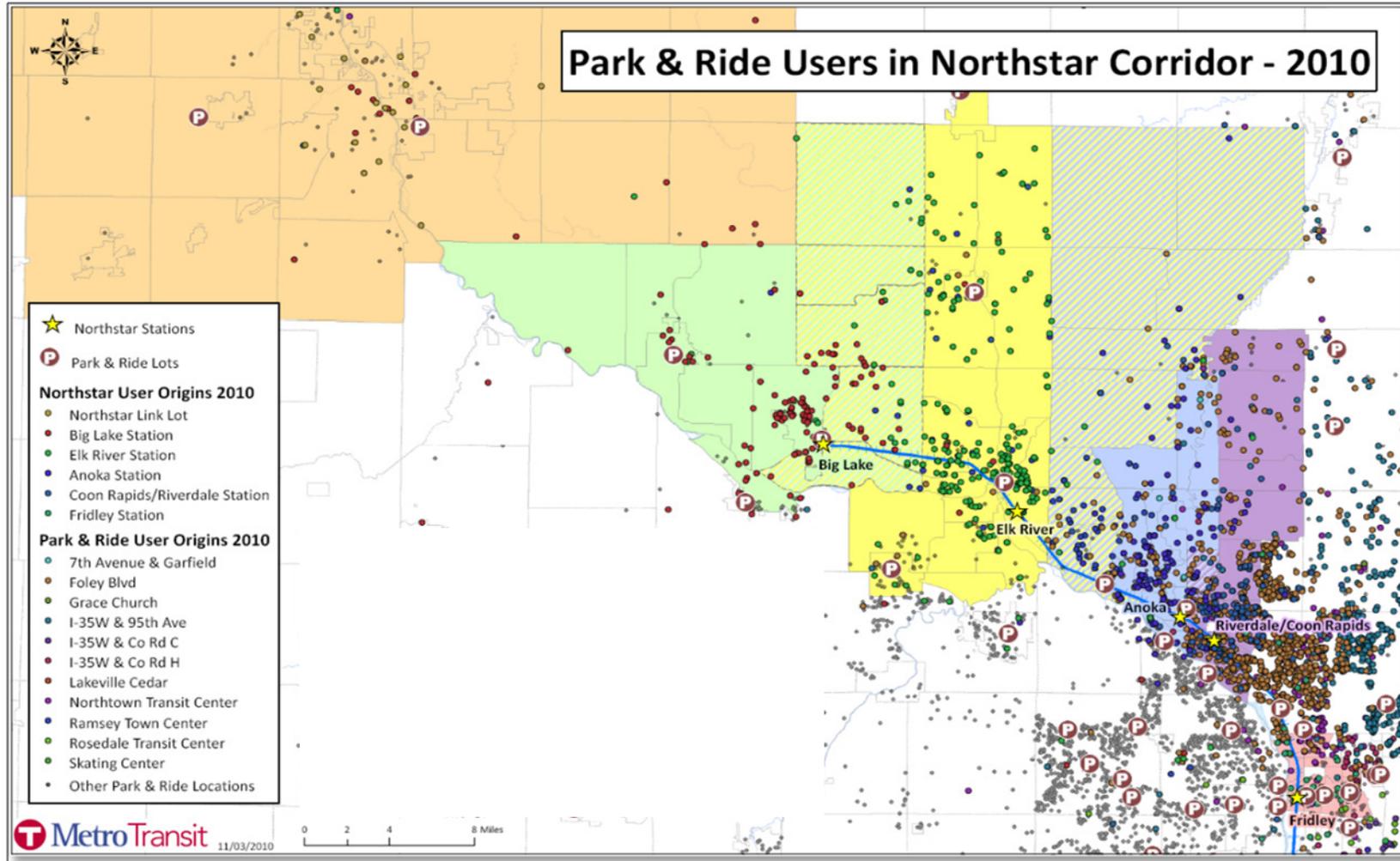


**Figure 6-8 Residences of Workers in the Twin Cities**



Data from the Northstar 2011 Smart Starts Application Update illustrate where Northstar users reside and which stations they use when commuting via Northstar rail. The map in Figure 6-9 shows where people live who access Northstar, and illustrates that most of them live within close proximity of a Northstar Station. This data suggests that there may be opportunities for services and programs to improve access to Northstar, such as local circulators, dynamic ridesharing, and creating designated preferred parking for carpoolers at Northstar lots.

Figure 6-9 Park-and-Ride Users in Northstar Corridor, Metro Transit Data for 2011 Smart Starts Application Update



## Travel Patterns by Mode

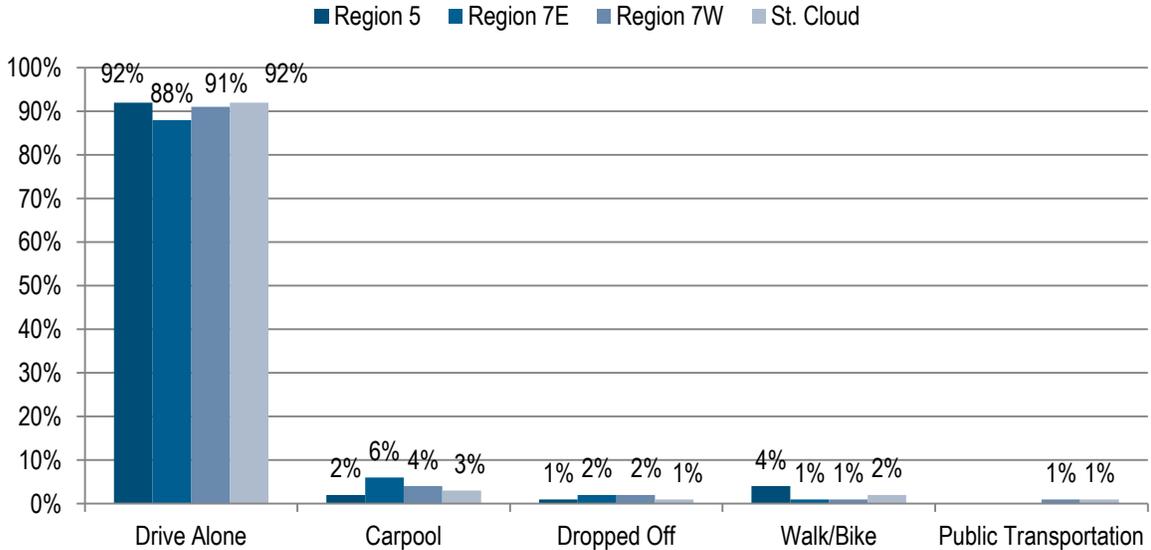
Data from multiple sources reveals how people travel in the region, but overwhelmingly, residents of District 3 travel by single-occupant vehicle (SOV): most drive alone to work, some carpool or ride with others, and a very small minority use transit, walk, or travel by bicycle to work.

The general public phone survey (see Chapter 5) confirmed US Census data and findings from other data sources that more than 90% of survey respondents drive alone to their work place. Four percent carpool, two percent are dropped off, and two percent walk or bike. Only one percent use public transportation. The commuter mode information reveals that some regional variation exists. For instance, Region 7E (Isanti, Kanabec, and Mille Lacs Counties) has the lowest drive-alone rate of the area, with 88% driving alone to work. Six percent (6%) of Region 7E residents report carpooling, the mode with the second-highest share in this region. With some of the longest commute times in District 3, carpooling in these counties is a reasonable option. No transit into the Twin Cities is available in this area, and only one vanpool – from Isanti – is currently established.

Carpooling in Region 7W represents four percent of the commuter mode share. It represents three percent of the share in St. Cloud, and two percent in Region 5.

Though about half of the respondents in all regions surveyed are familiar with transit services in their areas, only respondents in St. Cloud and Region 7W use public transportation for work. One percent (1%) of those surveyed in each of these areas uses public transportation.

**Figure 6-10 District 3 Commuter Mode Share**



Although commuters are a major market for transit and carpooling, students tend to consider these modes because they do not always have access to an auto. District-wide, nearly 50% drive alone to get to school (colleges or universities). In Region 5, nearly 63% of students carpool to school, and only 38% drive alone. In St. Cloud, 20% of students ride St. Cloud Metro Bus to get to school. Looking beyond St. Cloud at all of Region 7W, 23% of students use public transportation to access school, all riding Metro Bus. Another 11% carpool.

The LEHD data and the survey data provide more reliable information than data from the US Census American Community Survey (ACS). The ACS data generally reflects the mode share described above but due to small samples at the tract level, particularly in the most rural portions of District 3, was found to be unreliable.

## CONCLUSION

Through a combination of the telephone survey as well as qualitative information gathered from the park-and-ride and employer surveys, the Census, DEED, background documents, and other studies, several patterns are discernable:

- The region is growing faster than the state in both population and employment. A corresponding increase in travel is expected – the St. Cloud APO predicts the total trips generated by development in the APO region will be 2.3 million by 2035, double that of 2005.
- Trip origins (residences) are fairly dispersed. Destinations (employers) are largely clustered. Employers are primarily situated along major corridors, specifically, I-94, Highway 10, and Highway 371. Workers' residences are generally dispersed throughout the region, with some nodes of density in cities.
- The two primary nodes of employment are the St. Cloud metropolitan region and the Brainerd-Baxter area. Many employers are also situated throughout Stearns, Sherburne, and Wright Counties.
- Regional commuting is heaviest to the Twin Cities. St. Cloud is a major employment draw for counties in Region 7W and Region 7E, and even for residents of Minneapolis. Commuting from Region 5 and points north is much less prevalent.
- The Brainerd-Baxter area primarily attracts commuters from points north and has a much smaller commute shed. Most workers live in Crow Wing or Cass Counties.
- Residential growth in the St. Cloud metro region, is expected to continue in more dispersed patterns.
- Though somewhat less predictable, employment sites can be expected to continue growing along major highways in the region.
- The telephone survey suggests that residents of District 3 support transit connections to both the Twin Cities and to St. Cloud. St. Cloud residents support commuter rail more strongly than residents of other areas. Region-wide, nearly 20% of residents state that they would consider using a peak-time commuter bus service, both to St. Cloud and to the Twin Cities.
- Opportunities exist to support carpools and vanpools in District 3 because of the long commutes and clustered employment sites.