

A large, historic stone building, likely a county courthouse, with a prominent clock tower on the left side. The building is constructed of light-colored stone and features multiple arched windows and doorways. A statue of a person stands on a pedestal in the foreground to the left of the main entrance. The sky is clear and blue, and there are trees and greenery around the building.

Chapter 2

Region Profile

Chapter 2 – Region Profile

An understanding of the characteristics of the region is necessary to properly maintain the existing transportation system and plan for future needs, challenges, and opportunities. It is important to review existing conditions and anticipated trends of demographic and economic characteristics, as these elements directly affect the volume and type of transportation taking place and the infrastructure required to meet its demand. This chapter provides an overview of the existing characteristics influencing travel in the region.

Throughout this chapter, data is often discussed at the county level. It is important to note that transportation planning for the metropolitan area of Black Hawk County is conducted by the Metropolitan Planning Organization (MPO). However, county-level data for Black Hawk County includes the MPO study area. The metropolitan area is completely within the RTA and plays a large role in the dynamic of the region's transportation system.

Population

The Iowa Northland Region comprises Black Hawk, Bremer, Buchanan, Butler, Chickasaw, and Grundy Counties, covering 3,162 square miles, or approximately six percent of the state of Iowa. According to the U.S. Census 2018 Population Estimates, the region has a combined population of 217,361. The majority of that population is concentrated in Waterloo and Cedar Falls. The next largest concentrations of population are in the Cities of Waverly and Independence. Table 2.1 shows the regional population estimates by county and city.

Table 2.1: Population Estimates, by City and County, 2018

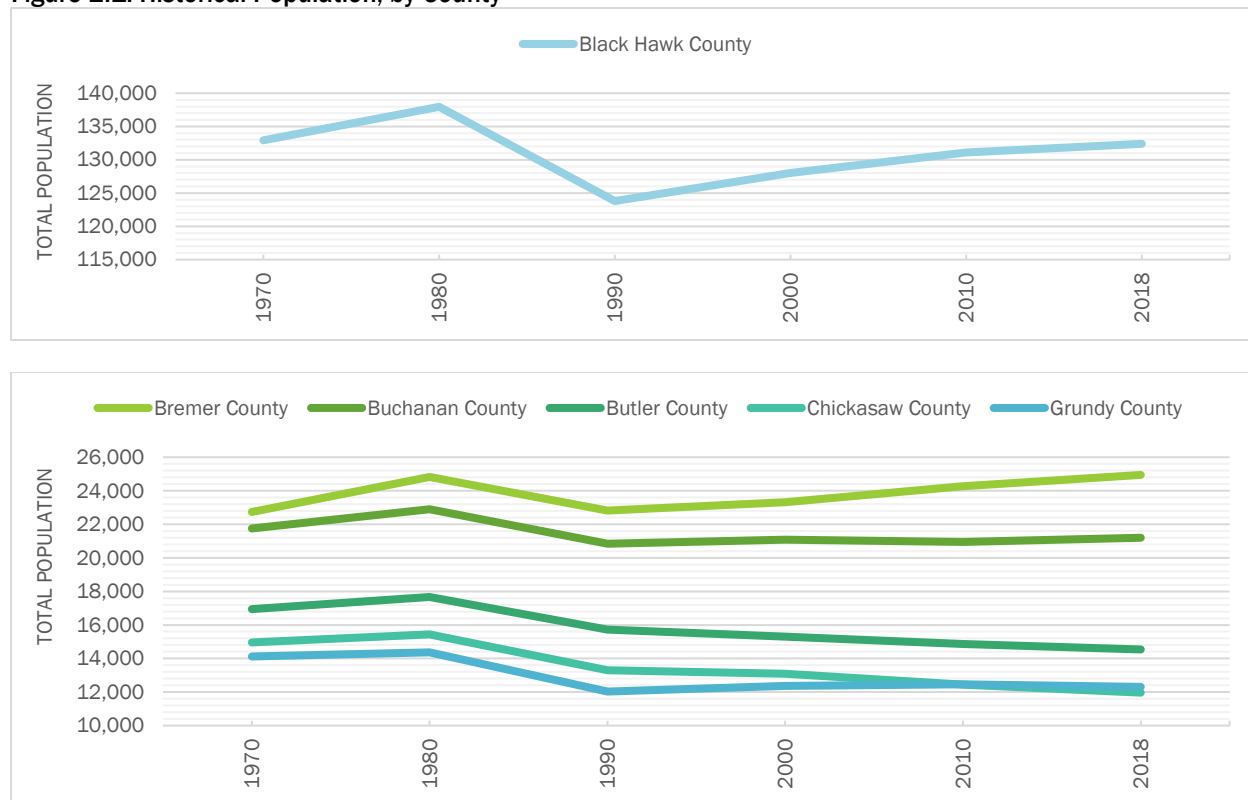
Black Hawk County		Bremer County		Buchanan County	
Cedar Falls	41,048	Denver	1,841	Aurora	164
Dunkerton	838	Frederika	202	Brandon	309
Elk Run Heights	1,156	Janesville	983	Fairbank	1,124
Evansdale	4,757	Plainfield	415	Hazleton	826
Gilbertville	729	Readlyn	840	Independence	6,073
Hudson	2,466	Sumner	1,961	Jesup	2,710
La Porte City	2,259	Tripoli	1,356	Lamont	456
Raymond	802	Waverly	10,153	Quasqueton	561
Waterloo	67,798	Unincorporated	7,196	Rowley	266
Unincorporated	10,555			Stanley	122
				Winthrop	854
				Unincorporated	7,734
County Total	132,408	County Total	24,947	County Total	21,199

Butler County		Chickasaw County		Grundy County	
Allison	988	Alta Vista	253	Beaman	187
Aplington	1,061	Bassett	65	Conrad	1,081
Aredale	69	Fredericksburg	913	Dike	1,280
Bristow	152	Ionia	275	Grundy Center	2,682
Clarksville	1,352	Lawler	419	Holland	271
Dumont	609	Nashua	1,593	Morrison	92
Greene	1,068	New Hampton	3,394	Reinbeck	1,637
New Hartford	492	North Washington	138	Stout	213
Parkersburg	1,943	Unincorporated	4,914	Wellsburg	692
Shell Rock	1,284			Unincorporated	4,169
Unincorporated	5,521				
County Total	14,539	County Total	11,964	County Total	12,304

Source: U.S. Census Bureau, 2018 Population Estimates

Over the past 50 years, the population of the region has fluctuated in size. Figure 2.1 shows the historical population estimates for each County from 1970 to 2018. The area's population experienced a sharp decrease following the economic recession of the 1980s which had a detrimental effect on agriculture and manufacturing in the region. Population growth for the region since has been relatively slow.

Figure 2.1: Historical Population, by County



Source: U.S. Census Bureau, Decennial Census, 2018 Population Estimates

Population Projections

Reviewing and understanding population projections is essential to determine the adequacy of existing transportation facilities. The growth rate was calculated using U.S. Census Population Estimates from 2011 to 2017. Broad economic events including the post-war boom in the 1940s and '50s, the farm crisis in the '80s, and the financial crash of 2007 make data from earlier timeframes difficult to rely on. Table 2.2 shows the population projections by county.

Table 2.2: Population Projections, by County

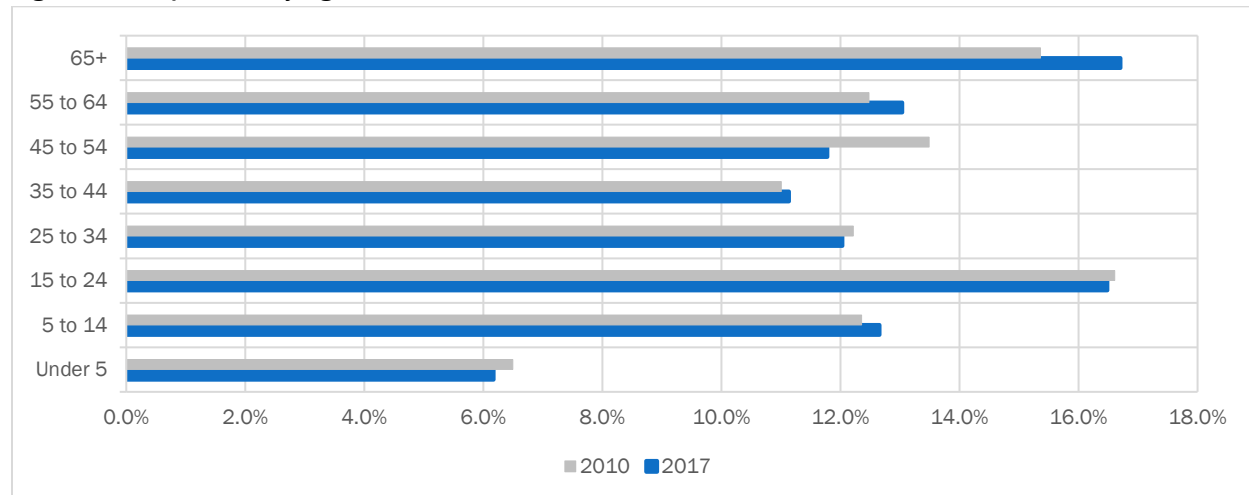
	2011	2013	2015	2017	2025	2035	2045
Black Hawk	131,470	132,781	133,435	132,648	134,887	136,981	139,075
Bremer	24,376	24,573	24,761	24,911	25,641	26,538	27,434
Buchanan	20,911	21,027	21,109	21,202	21,588	22,065	22,543
Butler	14,969	14,978	14,880	14,606	14,205	13,612	13,018
Chickasaw	12,400	12,268	12,123	12,005	11,468	10,803	10,138
Grundy	12,479	12,343	12,406	12,333	12,184	11,997	11,809
Region	216,605	217,970	218,714	217,705	219,973	221,995	224,017

Source: U.S. Census Bureau, Population Estimates

Age

Figure 2.2 compares the population of the region in 2010 and 2017, and Map 2.1 shows the percent of the population over the age of 65. Millennials and senior citizens currently make up the largest percentages of the population. The age range that decreased the most was 45-54 (-1.71 percent). The region's percentage of residents 65 years old or older increased by 1.34 percent, the most of any age group over this time period. This trend will require attention in transportation planning as the number of driving seniors increases.

Figure 2.2: Population by Age, 2010 vs. 2017



Source: U.S. Census Bureau, Decennial Census, 2017 American Community Survey 5-year Estimates

Diversity

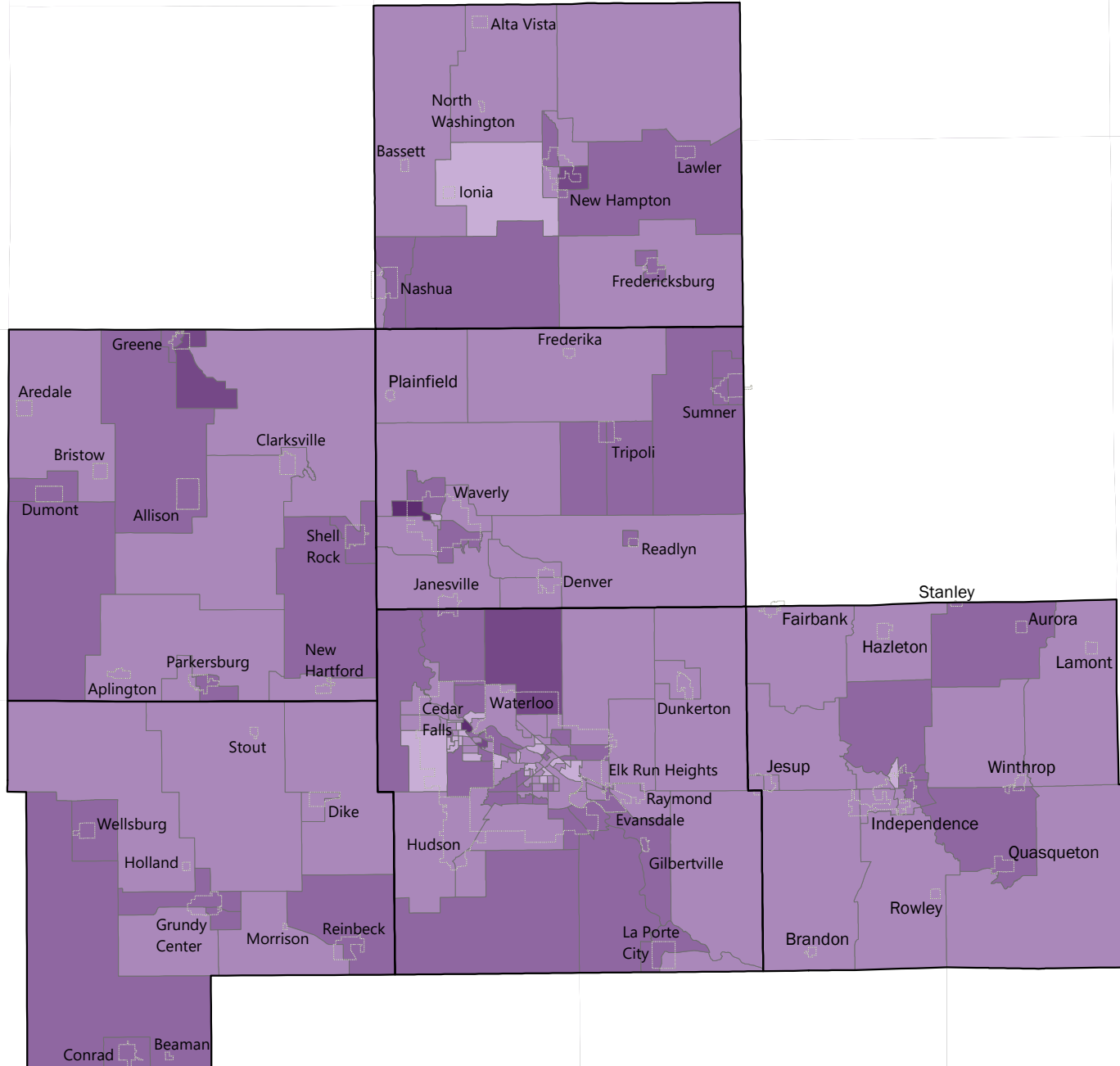
Ten percent of the region's population is non-White, including 5.6 percent that is Black or African American – nearly two percent higher than the state average. Black Hawk County is the most diverse of the six counties, and one of the most racially and ethnically diverse counties in the state. Diversity is less common in the region outside the metropolitan area, though there are larger percentages of minority populations in New Hampton and Waverly. The area also continues to experience new-comer populations. These populations may present special challenges and opportunities for public transportation planning, including the difficulty of communicating programs to people who may not speak English fluently. Map 2.2 shows the percent of the population that is non-white by census block group, and Map 2.3 shows the percent of the population that speaks English less than “very well”. Table 2.3 shows limited English-speaking populations by county.

Table 2.3: Limited English-Speaking Populations, by County

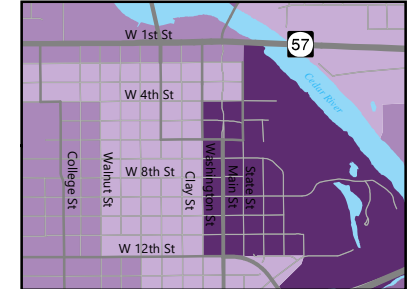
	Black Hawk	Bremer	Buchanan	Butler	Chickasaw	Grundy
All households	52,811	9,445	8,212	6,278	5,298	5,155
Limited English-speaking households	975	34	18	0	36	3
Percent limited English-speaking households	1.8%	0.4%	0.2%	0.0%	0.7%	0.1%
Population 5 years and over	124,548	23,334	19,659	14,008	11,442	11,663
Percent speak English less than “very well”	3.1%	0.9%	0.9%	0.0%	1.8%	0.3%
Speak English less than “very well”	3,890	221	181	5	211	35
Speak Spanish	1,196	91	87	5	105	19
Speak Other Indo-European languages	1,499	17	88	0	90	16
Speak Asian and Pacific Island languages	698	78	5	0	16	0
Speak other languages	497	35	1	0	0	0

Source: U.S. Census Bureau, Decennial Census, 2017 American Community Survey 5-year Estimates

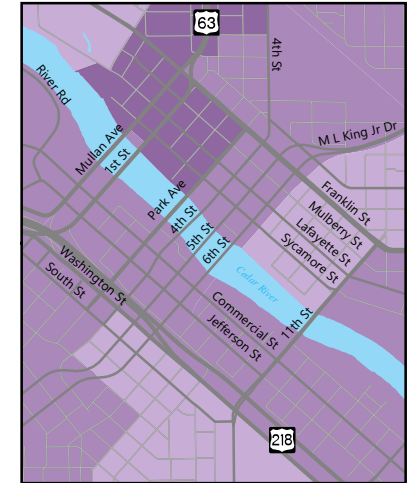
Percent of Population that is Over 65 by Census Block Group



Downtown Cedar Falls



Downtown Waterloo



Legend



City Boundary

Percent Population Over 65

0.00%	20.01% - 30.00%
0.01% - 10.00%	30.01% - 40.00%
10.01% - 20.00%	40.01% - 57.00%



0 5 10
Miles

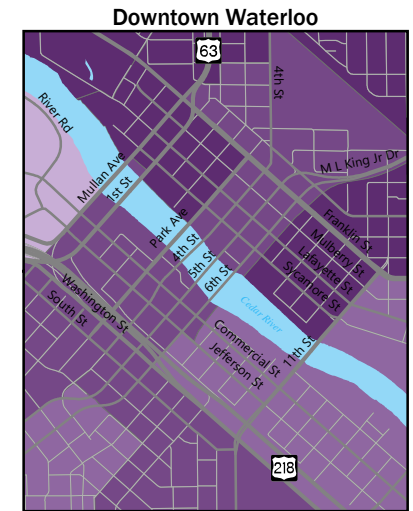
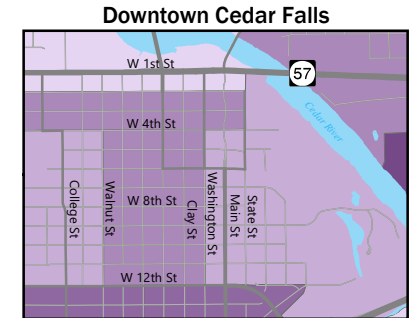
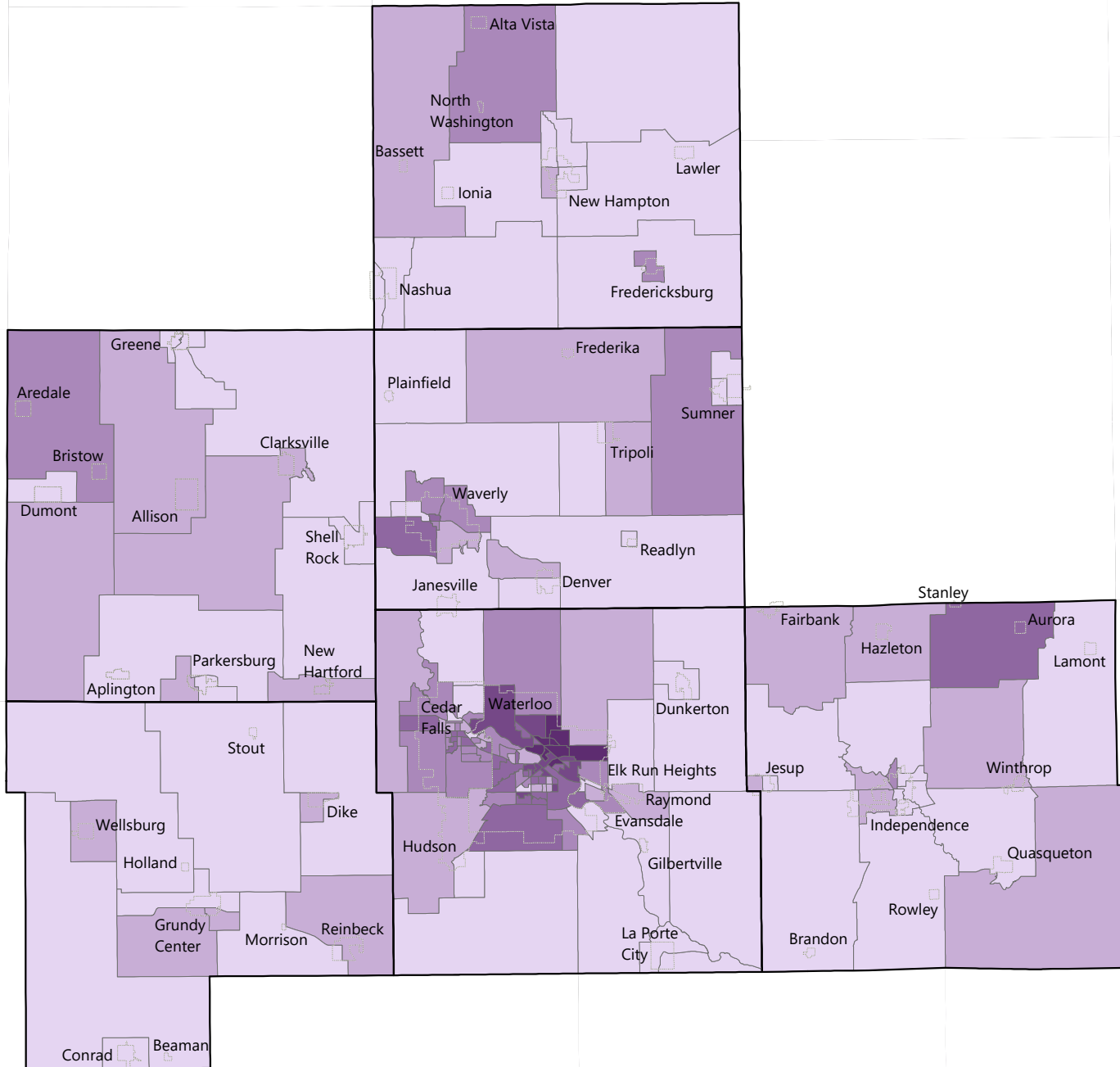


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Percent of Non-White Population by Census Block Group

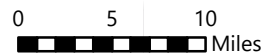
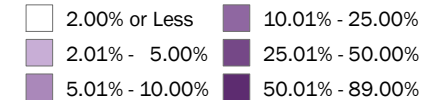


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City Boundary

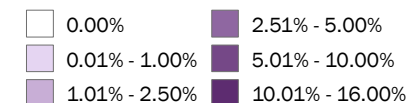
Percent of Non-White Population



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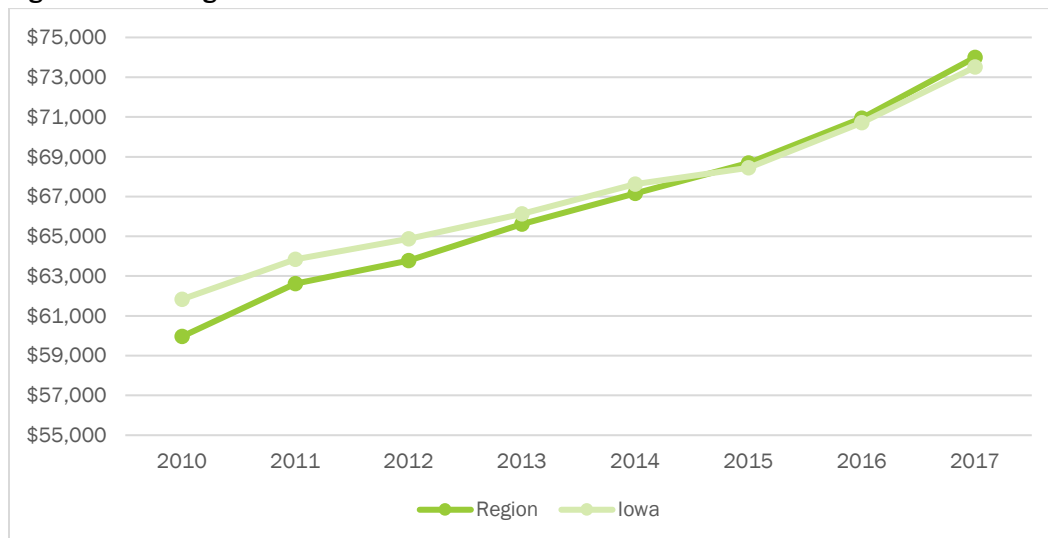
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Household Income

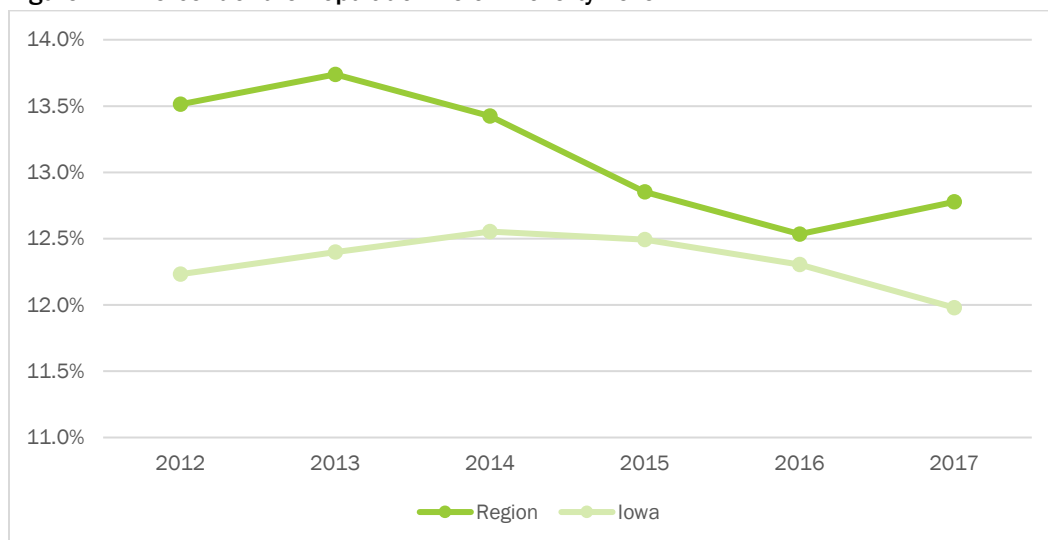
According to the FHWA Livability Initiative, transportation is the second largest expense for most households after housing. Households living in vehicle-dependent locations spend 25 percent of their income on transportation costs. Housing that is affordable and located closer to employment, shopping, restaurants, and other destinations can reduce household transportation costs to nine percent of household income. Figure 2.3 shows the average household income for the region, and Figure 2.4 and Map 2.4 show the percent of the population below poverty level.

Figure 2.3: Average Household Income



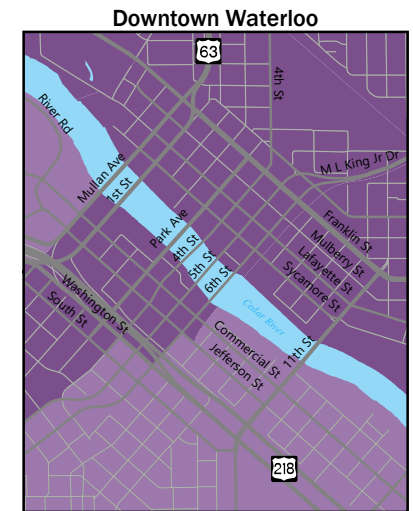
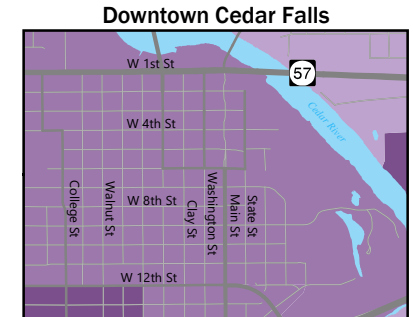
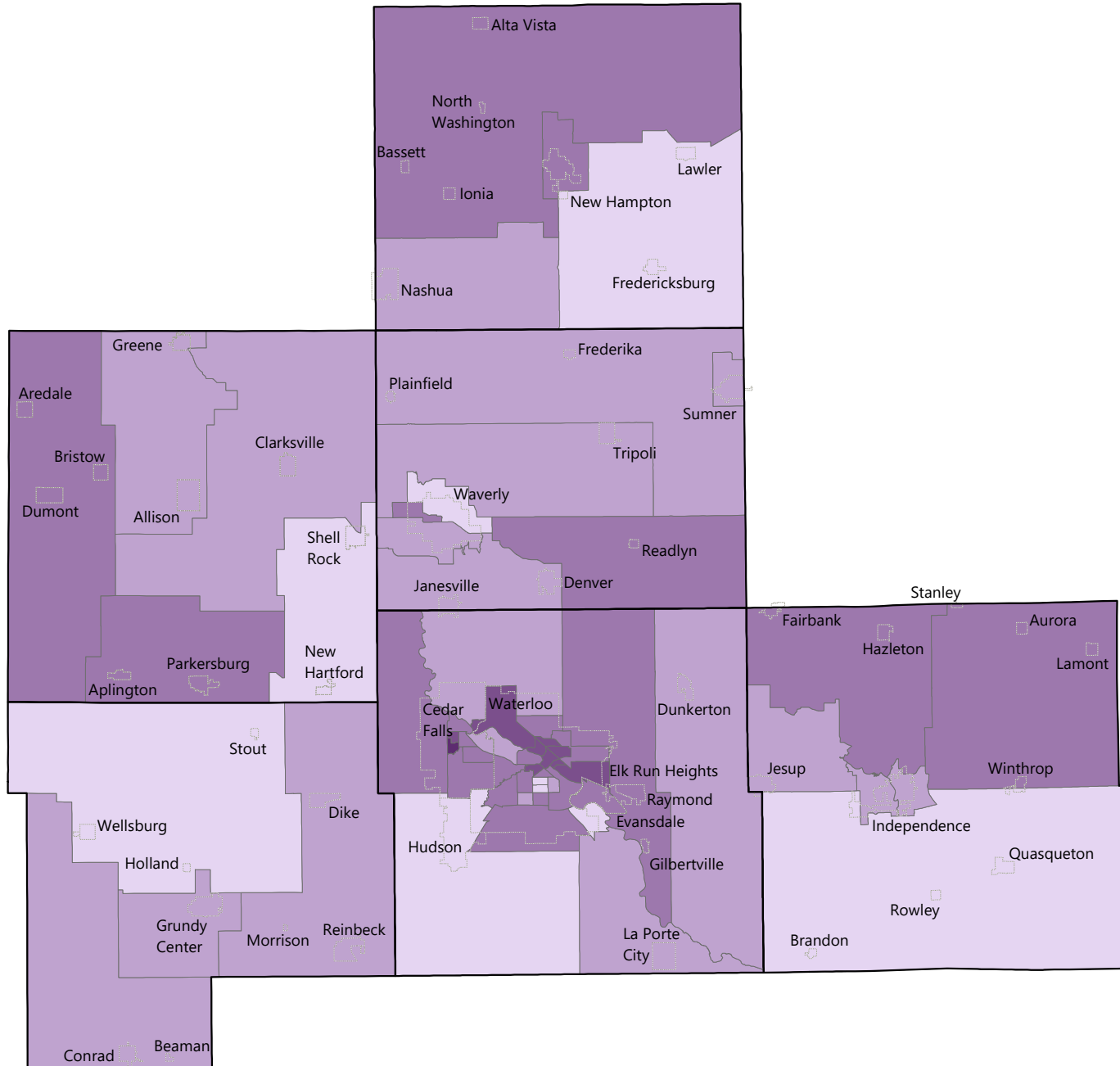
Source: U.S. Census Bureau, Decennial Census, 2017 American Community Survey 5-year Estimates

Figure 2.4: Percent of the Population Below Poverty Level



Source: U.S. Census Bureau, Decennial Census, 2017 American Community Survey 5-year Estimates

Percent of Population Whose Income was Below the Poverty Level in the Past 12 Months



Legend



City Boundary

Percent Whose Income was Below Poverty Level

- | | |
|-----------------|-----------------|
| 5.00% or Less | 25.01% - 50.00% |
| 5.01% - 10.00% | Over 50.01% |
| 10.01% - 25.00% | |



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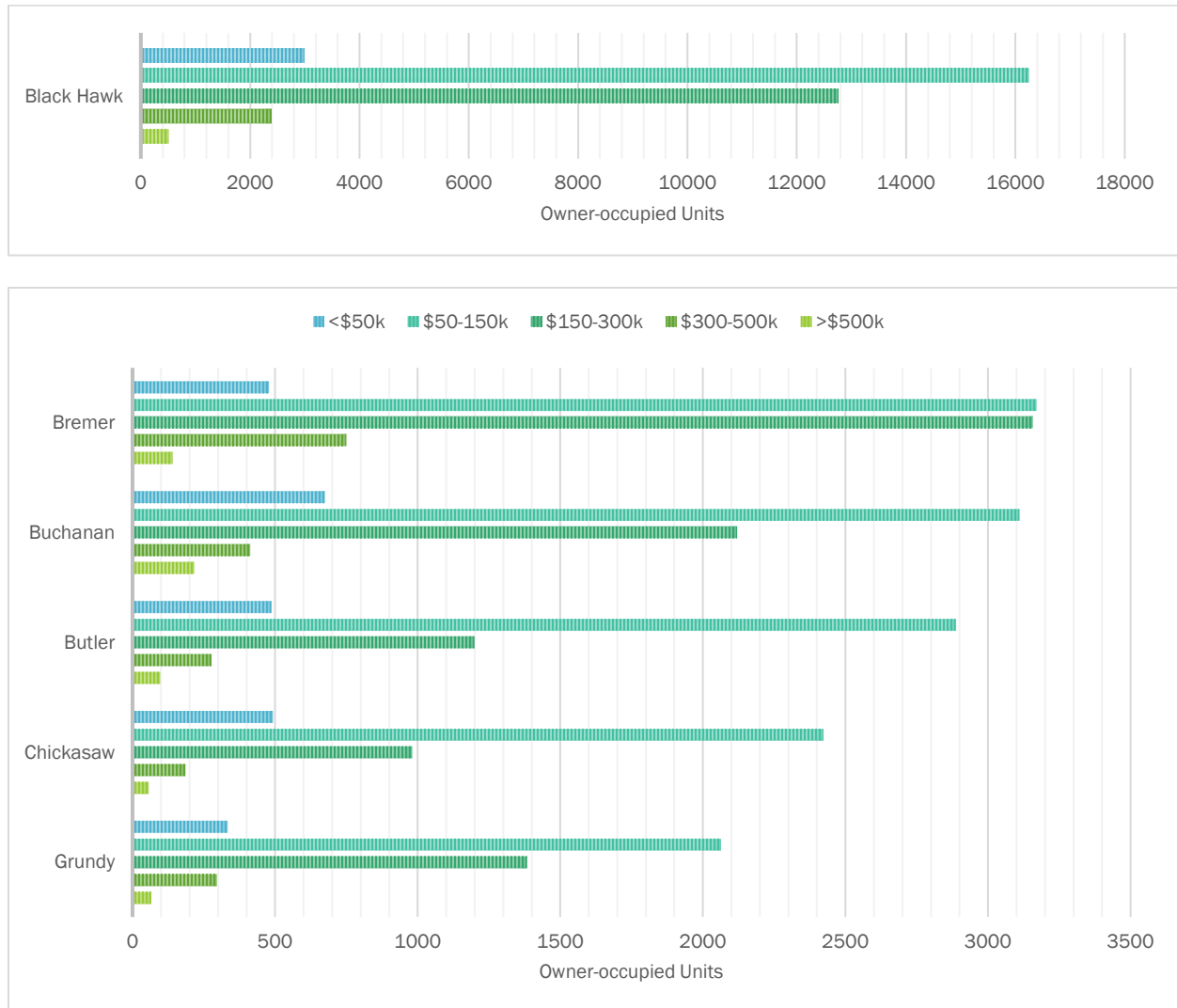
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Cost of Housing

The cost of housing and the cost of transportation are two large factors in determining where people choose to live. Metropolitan area workers may be more likely to live elsewhere in the region if the trade-off between decreased housing costs and increased transportation costs is still positive. Figure 2.5 shows the housing value of owner-occupied units, and Table 2.4 provides selected housing characteristics.

Figure 2.5: Housing Value, by County



Source: U.S. Census Bureau, Decennial Census, 2017 American Community Survey 5-year Estimates

Table 2.4: Selected Housing Characteristics, by County

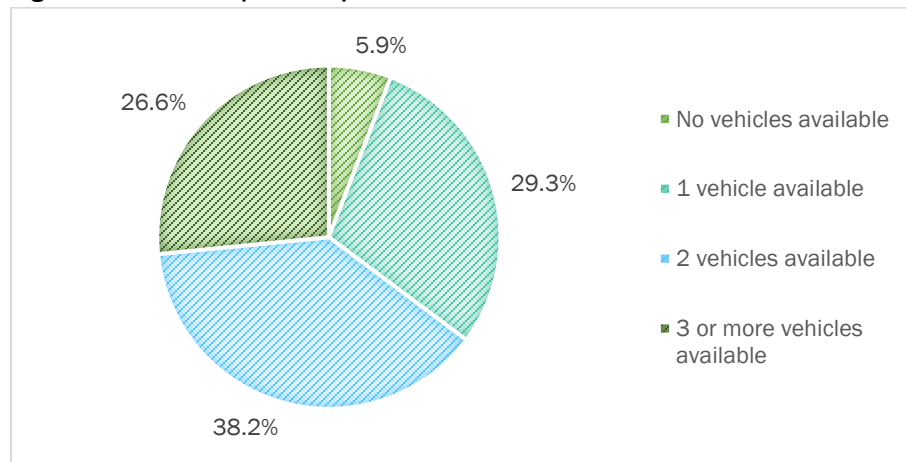
	Black Hawk	Bremer	Buchanan	Butler	Chickasaw	Grundy
Total Housing Units	57,300	10,232	9,074	6,758	5,702	5,564
Occupied Housing Units	52,811	9,445	8,212	6,278	5,298	5,155
Vacant Housing Units	4,489	787	862	480	404	409
Owner-occupied Housing Units	34,857	7,690	6,529	4,947	5,298	4,143
Renter-occupied Housing Units	17,954	1,755	1,683	1,331	1,158	1,012
Median Value of Owner-occupied Units	\$139,300	\$155,100	\$132,500	\$112,100	\$105,100	\$129,900
Median Rent	\$747	\$625	\$668	\$614	\$557	\$634

Source: U.S. Census Bureau, Decennial Census, 2017 American Community Survey 5-year Estimates

Vehicles per Household

Figure 2.6 shows the number of vehicles per household in the region. Approximately 35 percent of households have either one or no vehicles available. While the number of vehicles per household has increased over time, a substantial percentage of households have no vehicles available (5.9 percent). These households are more likely to depend on public transit, walking, or bicycling to get to and from their destinations.

Figure 2.6: Vehicles per Occupied Household

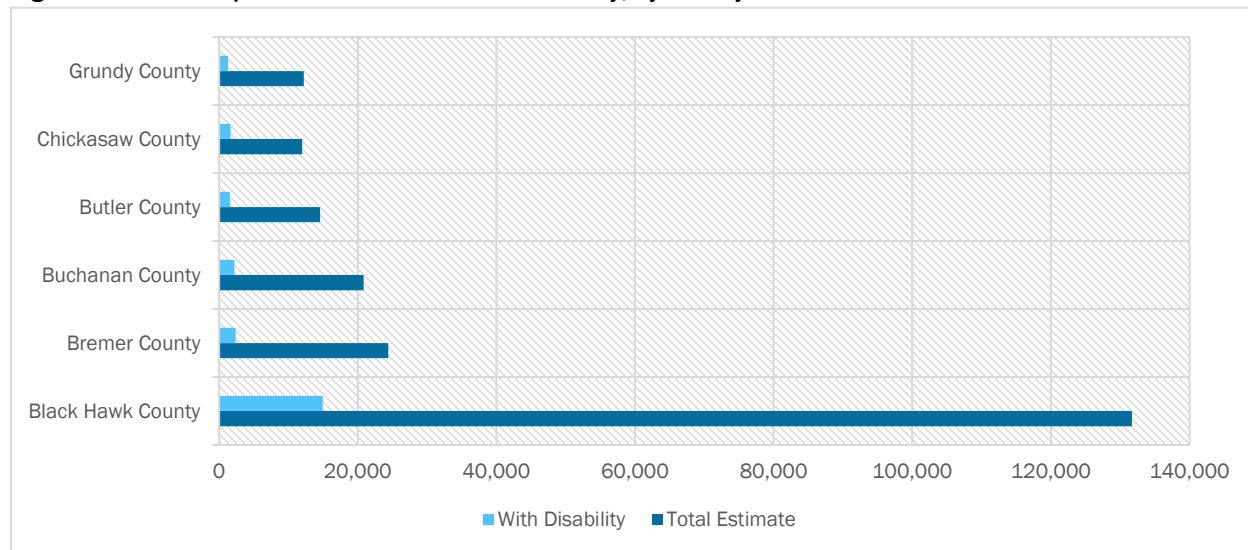


Source: U.S. Census Bureau, 2017 American Community Survey 5-year Estimates

Disabilities

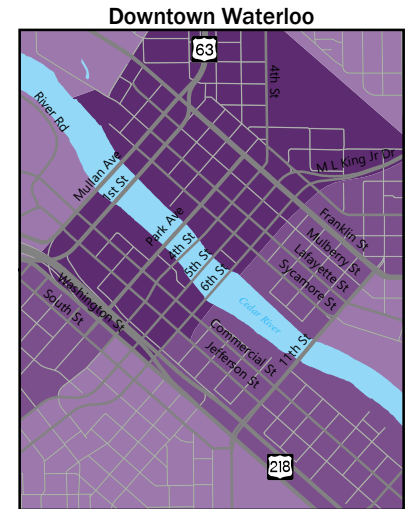
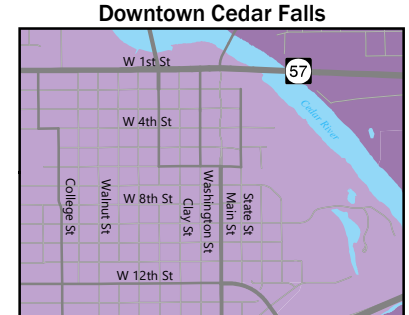
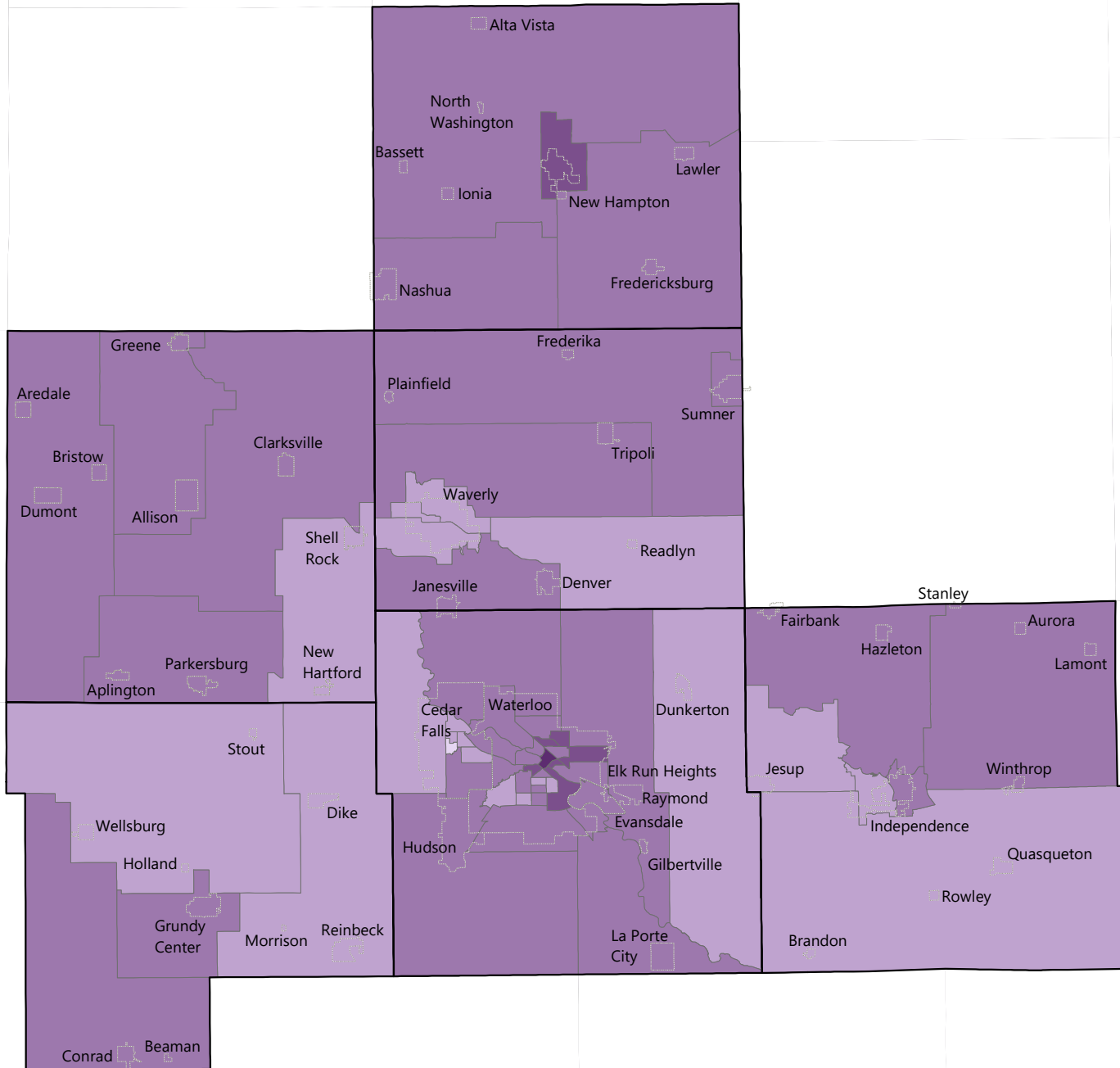
Persons with disabilities often face transportation challenges, and inadequate or unreliable transportation is a significant obstacle to gaining and retaining employment. According to the 2014 National Household Travel Survey, adults with disabilities are more than twice as likely as those without disabilities to have inadequate transportation. Further, the unemployment rate for individuals with disabilities is twice that of the general unemployment rate. For people with disabilities, transportation choice allows for full participation in community life. According to the 2017 American Community Survey 5-year Estimates, there are approximately 24,000 people living in the region with a disability. Figure 2.7 shows the number of persons with a disability by county, and Map 2.5 shows the percent of the civilian noninstitutionalized population with a disability.

Figure 2.7: Total Population Estimate with a Disability, by County



Source: U.S. Census Bureau, 2017 American Community Survey 5-year Estimates

Percent of Population with Disability 2017 Total Civilian Noninstitutionalized Population

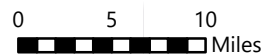
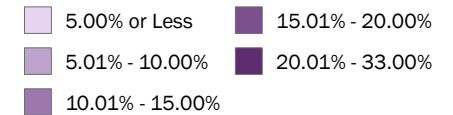


Legend



City Boundary

Percent Noninstitutionalized Population with Disability



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Employment

Overall employment in the Iowa Northland Region has increased slightly. According to 2017 estimates, there were approximately 112,109 persons employed in the region, an increase of 5,749 persons from 2009. Black Hawk and Bremer Counties experienced moderate increases in employed population, while Chickasaw County experienced a slight decline.

Table 2.5: Employment Estimates, by County, 2009 vs. 2017

	2009	2017	2017 % Total	Change
Black Hawk	63,492	68,771	61.3	5,279
Bremer	11,492	12,931	11.5	1,439
Buchanan	10,383	10,412	9.3	29
Butler	7,426	7,431	6.6	5
Chickasaw	6,061	6,269	5.6	208
Grundy	6,506	6,295	5.6	-211
Region	106,360	112,109	100.0	+5,749

Source: U.S. Census Bureau, 2017 American Community Survey 5-year Estimates

Employment Projections

In addition to forecasting population, it is important to forecast future employment. While there is a solid data source for the population in the U.S. Census, employment data is more limited. For employment forecasting, 2016-2026 Iowa Statewide Long-term Occupational Projections were obtained from the Iowa Workforce Development. According to this data, the region's employment is anticipated to grow by 0.8 percent annually. Employment growth is expected to vary across major occupational groups depending on the industry. Table 2.6 shows the projected annual employment growth rates by occupation for the region.

Table 2.6: Projected Annual Employment Growth Rates, by Occupation, 2016-2026

Occupations	2016 Est.	2026 Projected	Change	Annual Growth Rate (%)
Healthcare Practitioners & Tech	5,610	6,430	9,140	0.8
Transportation & Material Moving	8,990	9,740	825	1.5
Food Preparation & Serving Related	8,990	9,670	750	0.8
Office & Admin Support	15,610	16,260	680	0.8
Education, Training, & Library	7,950	8,600	650	0.4
Personal Care & Service	4,040	4,660	650	0.8
Sales & Related	10,760	11,375	620	1.5
Management	10,650	11,215	615	0.6
Business & Financial Operations	3,885	4,455	570	0.5
Healthcare Support	3,165	3,700	570	1.5
Building & Grounds Cleaning & Maintenance	3,835	4,355	535	1.7
Construction & Extraction	4,515	5,000	525	1.4
Installation, Maintenance, & Repair	4,725	5,170	485	1.1
Computer & Mathematical	1,425	1,690	445	0.9
Community & Social Service	1,790	2,055	270	1.9
Architecture & Engineering	1,470	1,715	265	1.5
Production	13,430	13,600	245	1.7
Legal	570	640	170	0.1
Arts, Design, Entertainment, Sports, & Media	1,445	1,505	60	0.4
Protective Service	1,280	1,345	60	0.5
Life, Physical, & Social Science	460	500	40	0.9
Farming, Fishing, & Forestry	1,135	1,170	35	0.3
Total	115,715	124,855	9,140	0.8

Source: Iowa Workforce Development, 2016-2026 Iowa Statewide Long-term Occupational Projections

To project the number of employees in the region in 2045, the annual growth rate (0.8 percent) was applied to the 2026 total projected employees (124,855). The result was a total of 145,263 employees and an employment to population ratio of 0.64 in 2045. The 2017 jurisdictional percentages were used to determine each county's share of the employment projections. Table 2.7 shows the employment projections for each county.

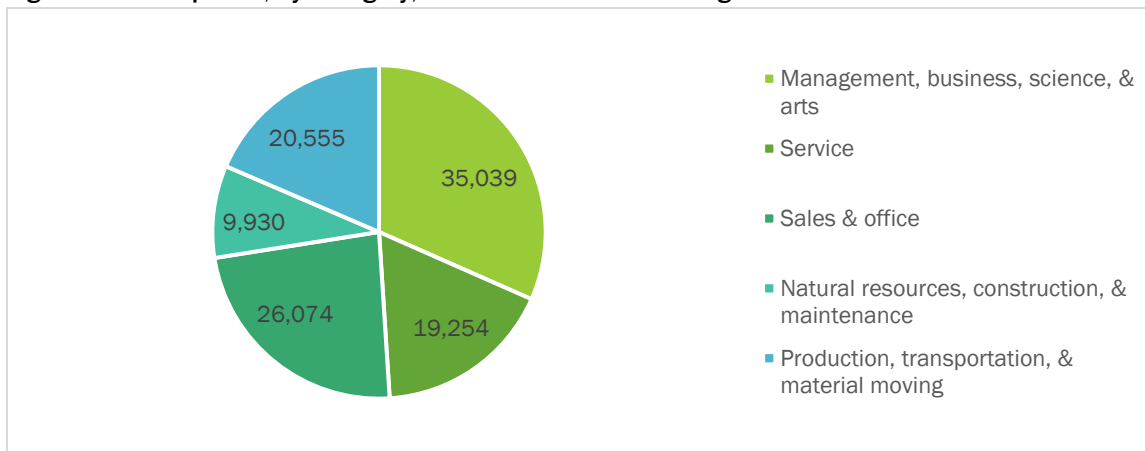
Table 2.7: Employment Projections, by County

	2017	2045
Black Hawk	68,771	139,075
Bremer	12,931	27,434
Buchanan	10,412	22,543
Butler	7,431	13,018
Chickasaw	6,269	10,138
Grundy	6,295	11,809
Region	112,109	224,017

Employment by Industry

Figure 2.8 shows occupation by category for the civilian population 16 years and over. The largest occupation category by percentage of total employed (32%) in the region is management, business, science, and arts. This category includes occupations such as engineering, education, healthcare practitioner, and community and social services.

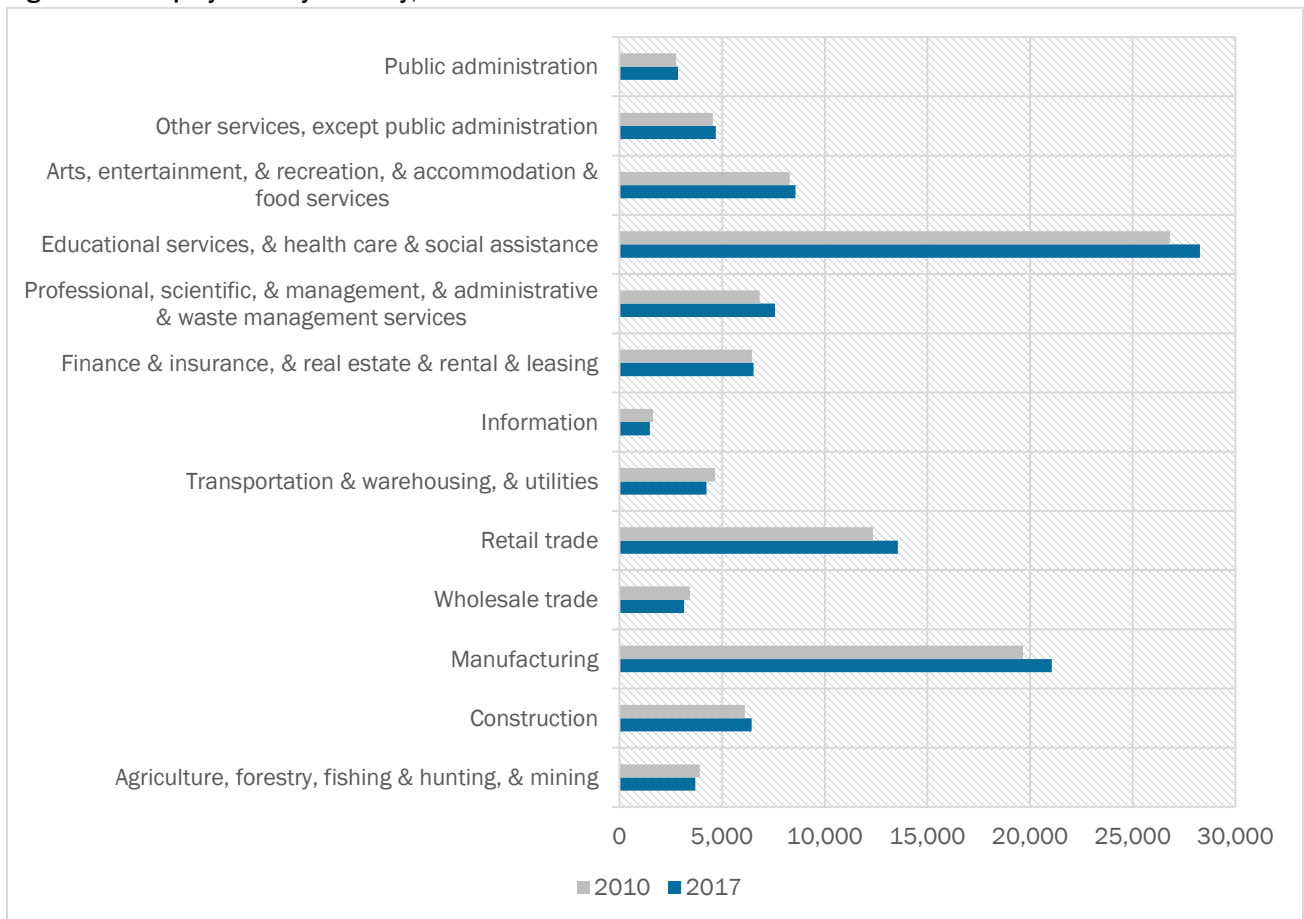
Figure 2.8: Occupation, by Category, for the Iowa Northland Region



Source: U.S. Census Bureau, Decennial Census, 2017 American Community Survey 5-year Estimates

Employment statistics for the region reflect the shift that has taken place in Iowa of increasing number of jobs in education and scientific services. Figure 2.9 compares the employment by industry in 2010 and 2017. According to 2017 American Community Survey 5-year Estimates, there are approximately 112,000 persons employed in the Iowa Northland Region. The largest industry in the region by number of workers is “educational services, & health care & social assistance” with 25 percent of the civilian employed workforce.

Figure 2.9: Employment by Industry, 2010 vs. 2017

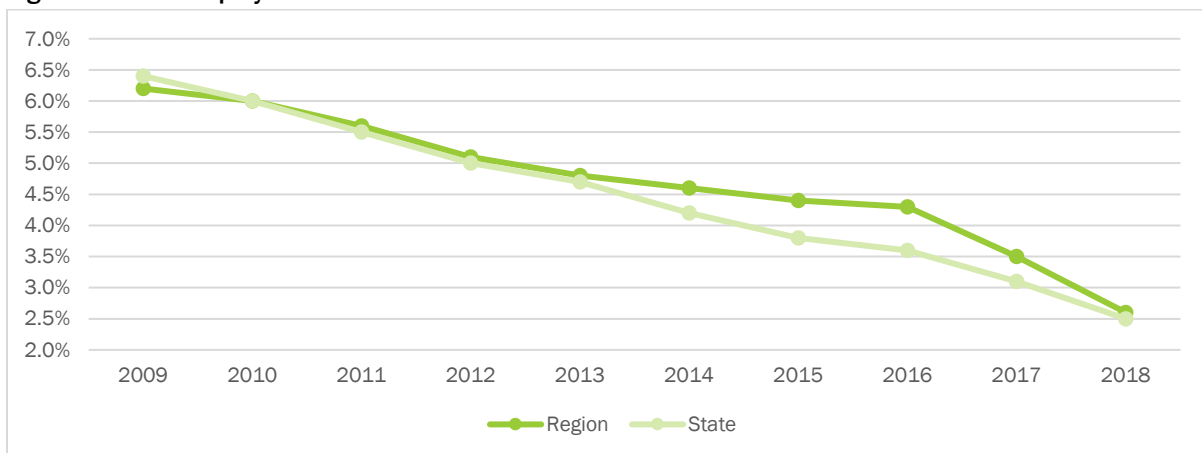


Source: U.S. Census Bureau, 2017 and 2010 American Community Survey 5-year Estimates

Unemployment

Figure 2.10 illustrates the unemployment rate for the region over the past ten years, along with the statewide average. The unemployment rate in 2009 was at its highest point since the early 1990s. Since then, the unemployment rate has seen a gradual decline relatively consistent with the statewide average.

Figure 2.10: Unemployment Rate

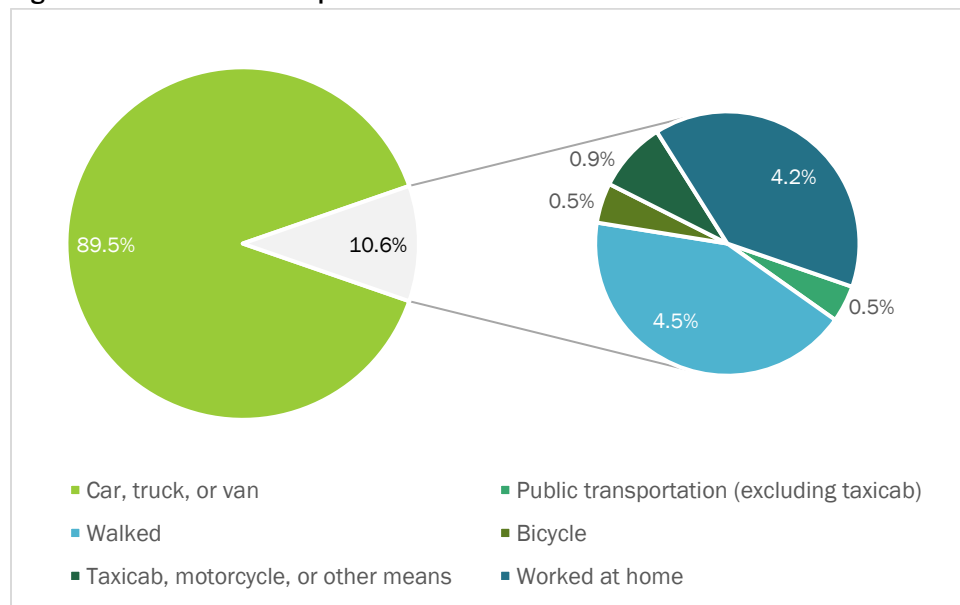


Source: Iowa Workforce Development, Local Area Unemployment Statistics 2009-2018

Mode of Transportation to Work

The Iowa Northland Region remains an auto-oriented community. 90 percent of residents utilize an automobile for travel to work (Figure 2.11). Walking or bicycling are the next highest modes of transportation at five percent combined. Public transportation makes up a small percentage of all commuting trips.

Figure 2.11: Mode of Transportation to Work

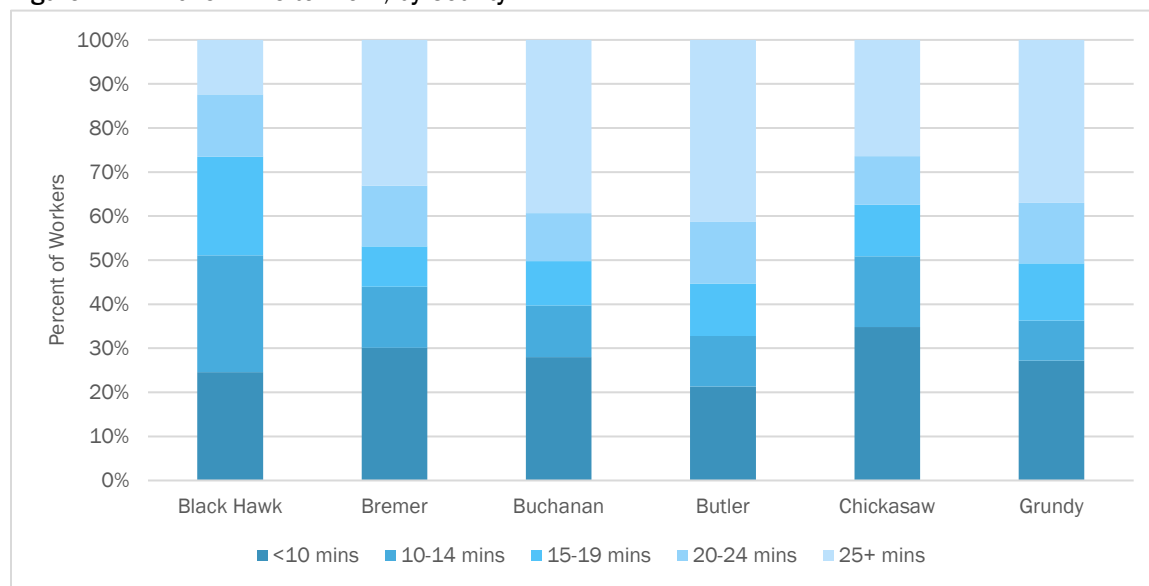


Source: U.S. Census Bureau, 2017 American Community Survey 5-year Estimates

Commute to Work

Figure 2.12 and Table 2.8 provide travel times to work and selected commuting characteristics. As shown, the travel time for workers varies greatly across the region. In Black Hawk County, 50 percent of workers have a commute time of 14 minutes or less. Conversely, approximately 40 percent of works in Buchanan and Butler Counties have commute times of 25 minutes or more.

Figure 2.12: Travel Time to Work, by County



Source: U.S. Census Bureau, Decennial Census, 2017 American Community Survey 5-year Estimates

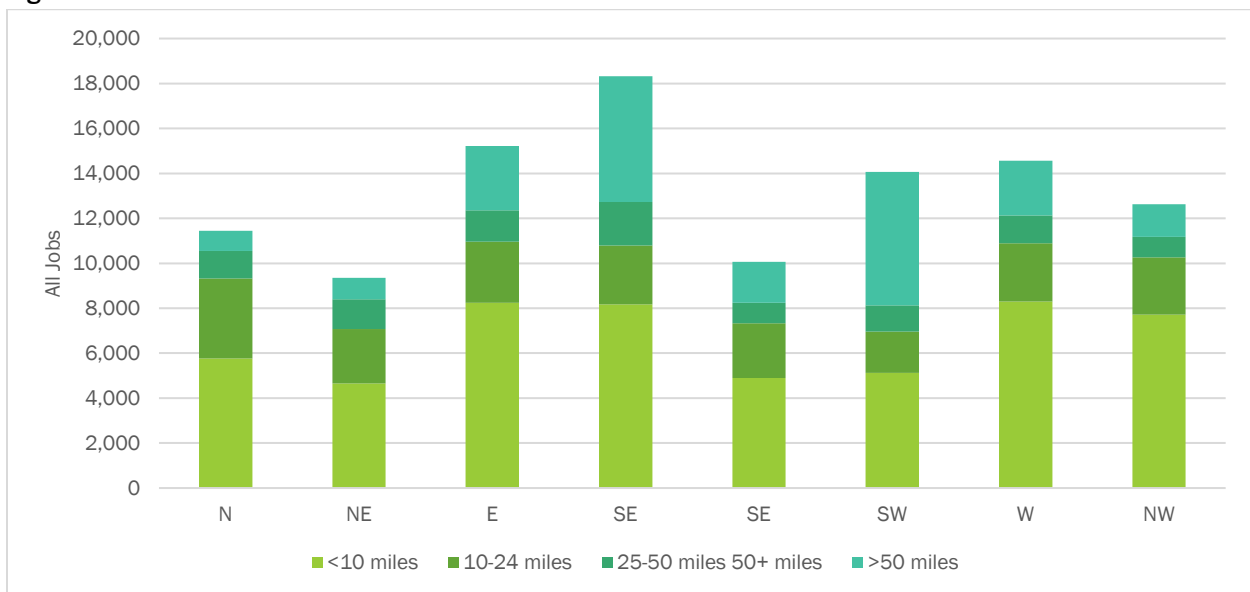
Table 2.8: Selected Commuting Characteristics, by County

	Black Hawk	Bremer	Buchanan	Butler	Chickasaw	Grundy
Mean travel time to work (minutes)	15.7	20.2	22.4	22.7	19.6	21.1
Worked in county of residence (%)	92.2	60.3	58.1	48.6	68.6	48.2
Worked outside county of residence (%)	7.1	39.4	41.5	50.5	30.7	51.0
Worked outside state of residence (%)	0.7	0.3	0.4	0.9	0.7	0.8

Source: U.S. Census Bureau, Decennial Census, 2017 American Community Survey 5-year Estimates

Figure 2.13 shows the distance and direction workers who live in the region traveled to work, and Map 2.6 identifies what counties workers who live in the Iowa Northland Region are employed. As shown, the majority of jobs are less than 10 miles from home. However, almost 22,000 jobs are greater than 50 miles in distance, the majority of which in the southeast and southwest direction. These trips are primarily to Cedar Rapids, Iowa City, and Des Moines.

Figure 2.13: Distance and Direction of Commute to Work



Source: U.S. Census Bureau, 2017 OnTheMap

According to 2017 OnTheMap data, there are approximately 74,000 people living and employed in the region, 27,000 people living in the region but employed outside, and 31,000 employed in the region but living outside. There is a net inflow of roughly 4,000 workers into the region. Figure 2.14 shows the labor inflow/outflow for the region.

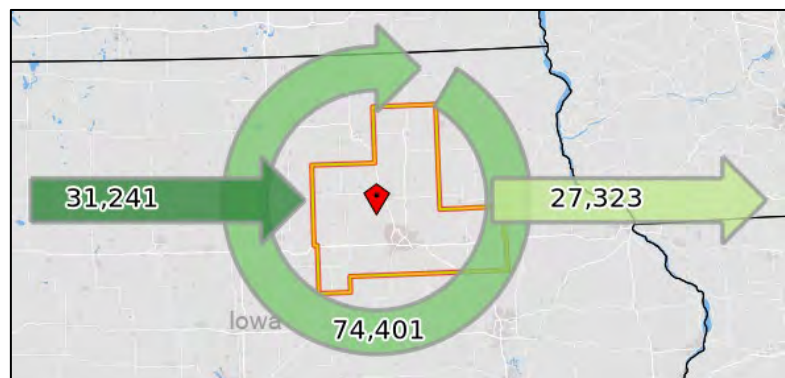
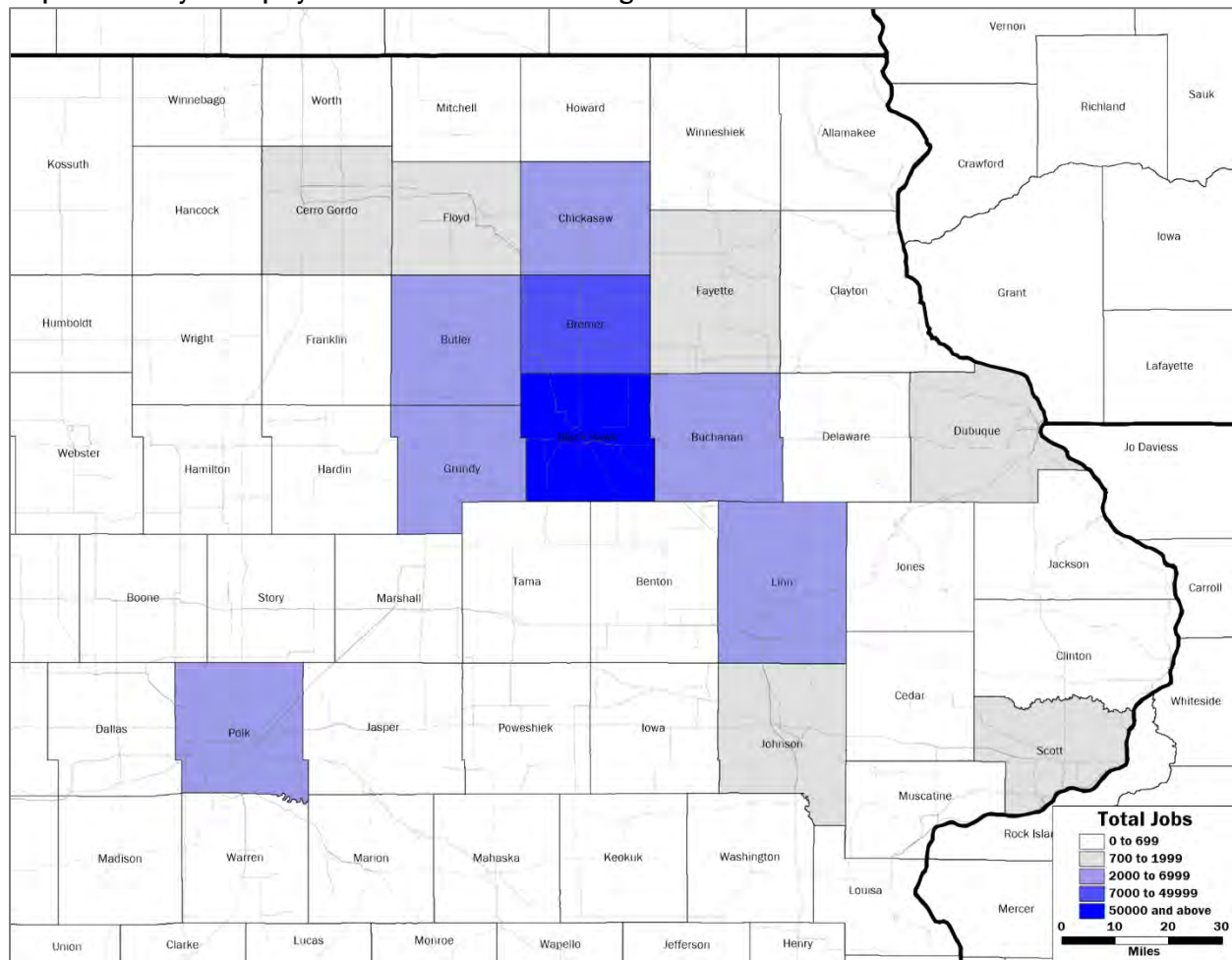


Figure 2.14: Inflow/Outflow of Jobs

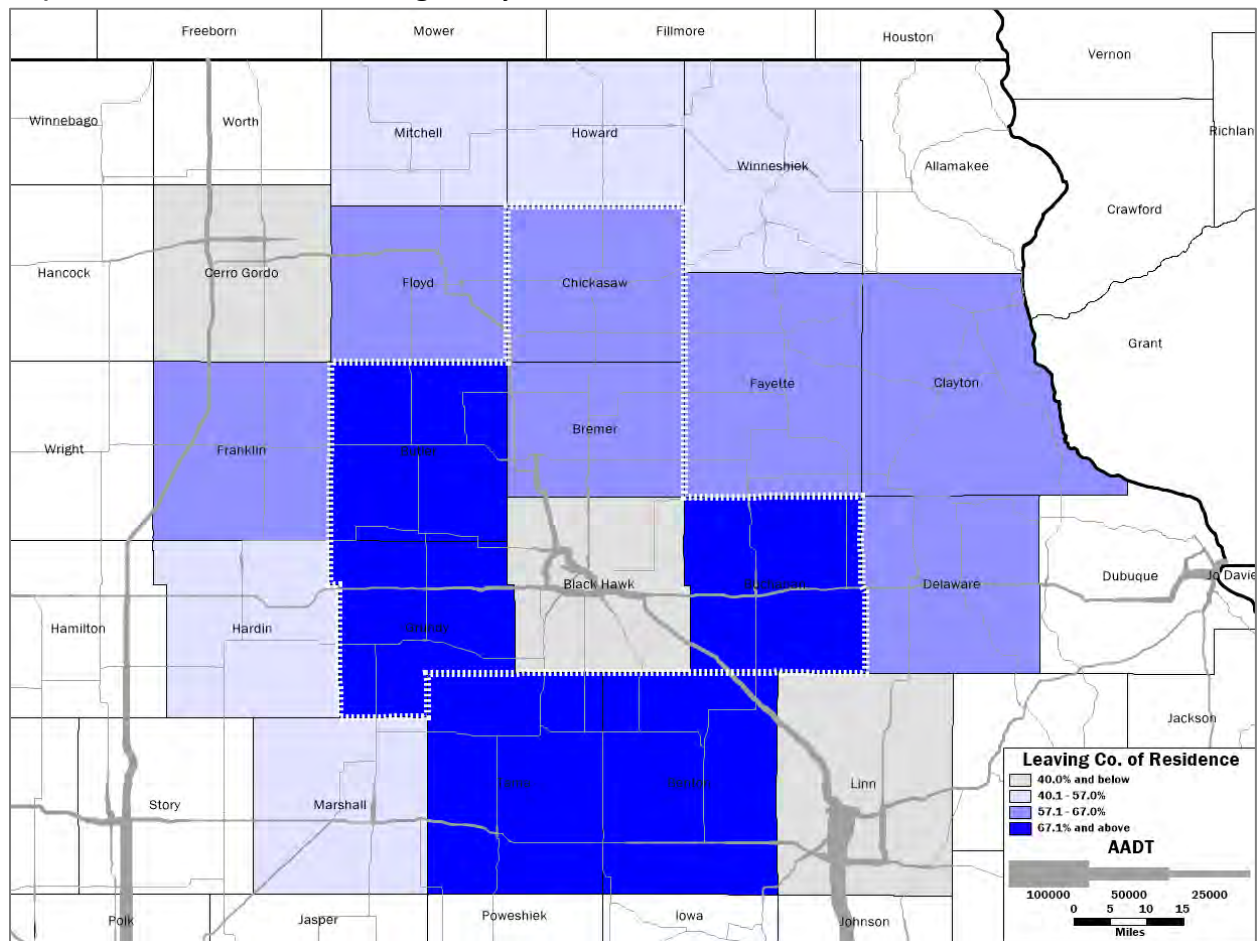
Map 2.6: County of Employment for Iowa Northland Region Residents



County	Count	Share (%)	County	Count	Share (%)
Black Hawk	54,580	53.7	Grundy	2,433	2.4
Bremer	7,674	7.5	Dubuque	1,525	1.5
Linn	4,644	4.6	Fayette	1,191	1.2
Buchanan	4,250	4.2	Cerro Gordo	1,140	1.1
Polk	3,667	3.6	Johnson	1,122	1.1
Chickasaw	2,896	2.8	Floyd	1,027	1.0
Butler	2,569	2.5	Scott	715	0.7

Source: U.S. Census Bureau, 2017 OnTheMap

Map 2.7: Percent of Workers Leaving County of Residence to Work



Source: U.S. Census Bureau, 2017 OnTheMap; Iowa DOT, Primary Traffic Volume

Map 2.7 shows the percent of workers leaving their county of residence to work in relation to the Annual Average Daily Traffic (AADT) on the primary roadway network. For comparative purposes, counties surrounding the Iowa Northland Region are shown as well. With the Waterloo/Cedar Falls metropolitan area, it is no surprise that Black Hawk County retains approximately 73 percent of its resident workers. On the opposite end of the spectrum, Butler and Grundy Counties only retain 24 percent and 29 percent of their resident workers. Some of the most heavily traveled primary roadway corridors are linking workers to counties with larger metropolitan areas.

Major Employers

Table 2.9 lists the top 25 major employers in the region. Of these top employers, manufacturing, education, and health care are the top three industries by number of employees. The majority of these employers are located within the Waterloo/Cedar Falls metropolitan area, though some of the companies are scattered throughout the region.

Table 2.9: Major Employers in the Iowa Northland Region

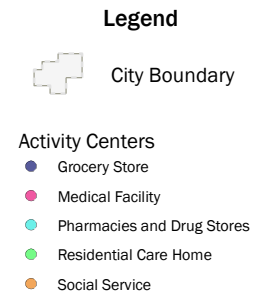
Company	Industry	Approximate Employees
John Deere Waterloo Operations	Manufacturing	5,000
Tyson Fresh Meats	Food Processing	2,980
MercyOne	Health Care	2,669
University of Northern Iowa	Education	1,811
Waterloo Community Schools	Education	1,715
UnityPoint Health	Health Care	1,499
Hy-Vee Foods Store (4)	Grocery	1,325
Western Home Communities	Health Care/Housing	1,052
CBE Companies, Inc.	Financial	982
VGM Group	Diversified	950
Cedar Falls Community Schools	Education	849
Omega Cabinets, Ltd.	Manufacturing	812
Omega Cabinet Manufacturing (2)	Manufacturing	750
Martin Brothers Distributing	Distribution	710
Hawkeye Community College	Education	700
Central Rivers AEA	Education	615
Wartburg College	Education	559
CUNA Mutual Group	Finance/Insurance	541
City of Waterloo	Government	530
Veridian Credit Union	Financial	513
Viking Pump	Manufacturing	491
Black Hawk County	Government	481
Waverly-Shell Rock Schools	Education	479
The Isle Casino and Hotel	Entertainment	456
Waverly Health Center	Health Care	450

Source: Grow Cedar Valley, 2019 Cedar Valley Fact Sheet



Activity Centers

Outside of the cities of Waverly and Independence, the region is primarily rural in nature with small cities spread throughout. However, transportation destinations are not limited to the urbanized areas of the region. Map 2.8 identifies activity centers that are considered to be trip generators. Activity centers include grocery stores, residential care homes, social services, pharmacies, and medical facilities (hospitals, clinics, and dentists).



Disclaimer: This map is for reference only. No liability is assumed for the accuracy of the data delineated herein, either expressed or implied by INRCOG.

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