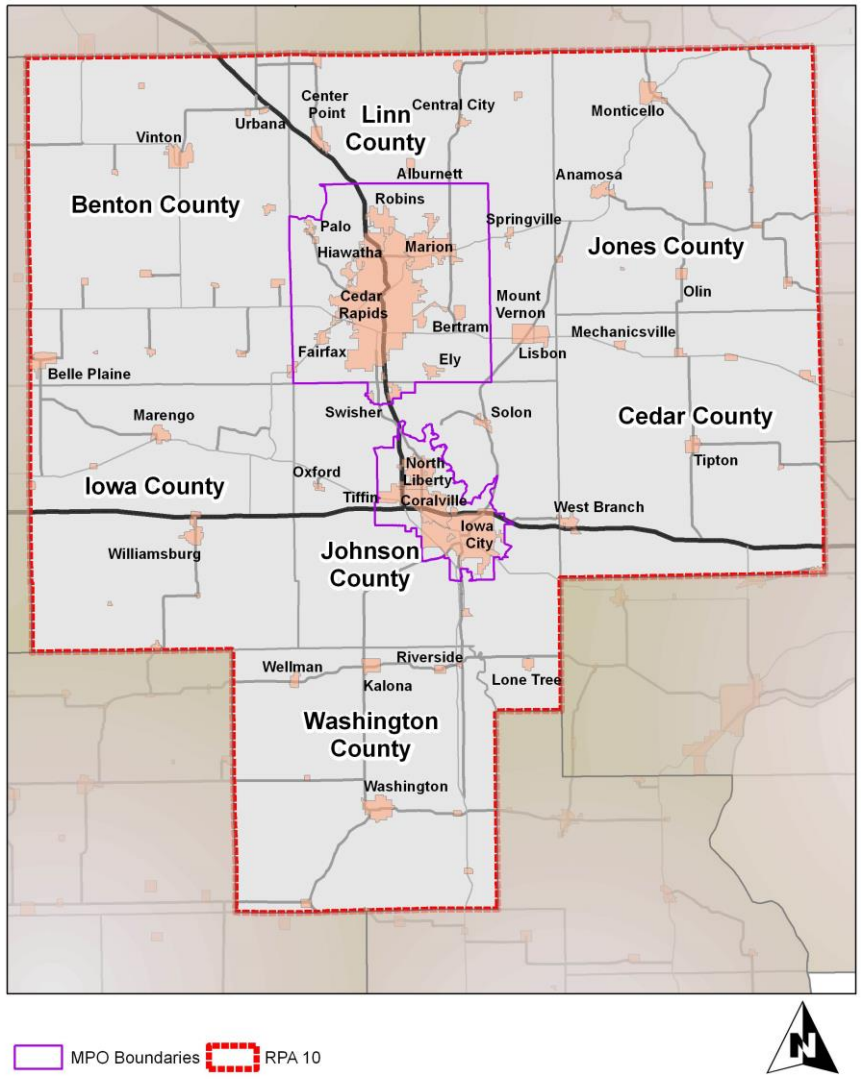
THE PLANNING AREA

RPA 10, also known as Iowa's Creative Corridor, is home to a half million residents and covers 4,400 square miles in Eastern Iowa, including the seven counties of Benton, Cedar, Iowa, Johnson, Jones, Linn and Washington.

The region is located in close proximity (less than 300 miles) to Chicago, Milwaukee, Minneapolis, Omaha, and St. Louis. Primary arteries linking these areas include Interstate 380 and US Highway 218, which runs north and south through the central part of the region. Interstate 80 is a major east-west route through the southern part of the region, and US Highway 30 serves as another east-west route through the northern part of the region. US Highway 151 is a north-south corridor bisecting the region. Access to markets is provided by the highway system and an extensive system of secondary roads, as well as by six freight rail carriers, one commercial airport, and eight additional airports with varied federal classifications.

Images from within the region

Figure 2.2: Map of Planning Boundaries in the Creative Corridor



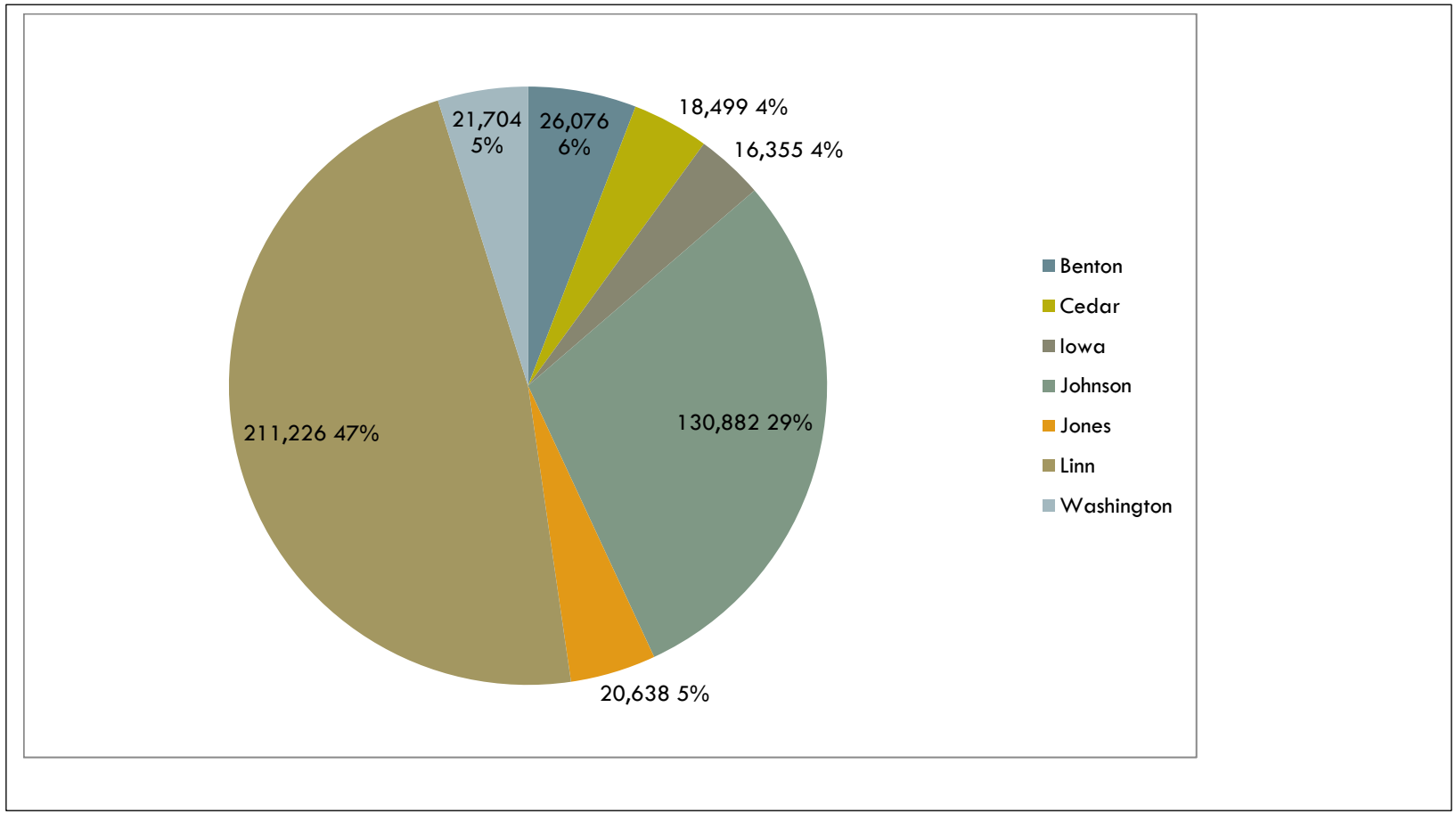
The Creative Corridor is characterized by two urban areas with numerous small towns and rural countryside. In addition to the seven counties, the region includes 72 municipalities and 30 public school districts. The region's largest municipalities are Cedar Rapids and Iowa City, located in central Linn County and Johnson County, respectively.

Note - Need map to reflect Corridor MPO Boundary and MPO JC Boundary and major highway corridors labeled

Population

According to the 2010 Census, the total population in the ECICOG region was 445,380. Nearly half (47%) of the region's total population resides in Linn County, and slightly less than one third (29%) of the region's population is located in Johnson County. The remaining five rural counties are home to between 4% and 6% of the population each, with Iowa County being the least populous at 16,355 people and Benton County being the most populous rural county with 26,076 residents.

Figure 2.3 Regional Population Distribution



Source: U.S. Census Bureau

Unlike many areas in Iowa, the population in the Creative Corridor is growing as its population diversifies. The denser urban core counties of Johnson and Linn exhibited the fastest population growth, while more rural Corridor counties trailed – as noted in Figure 2-4 below. Benton County actually saw a population decline over a ten-year period.

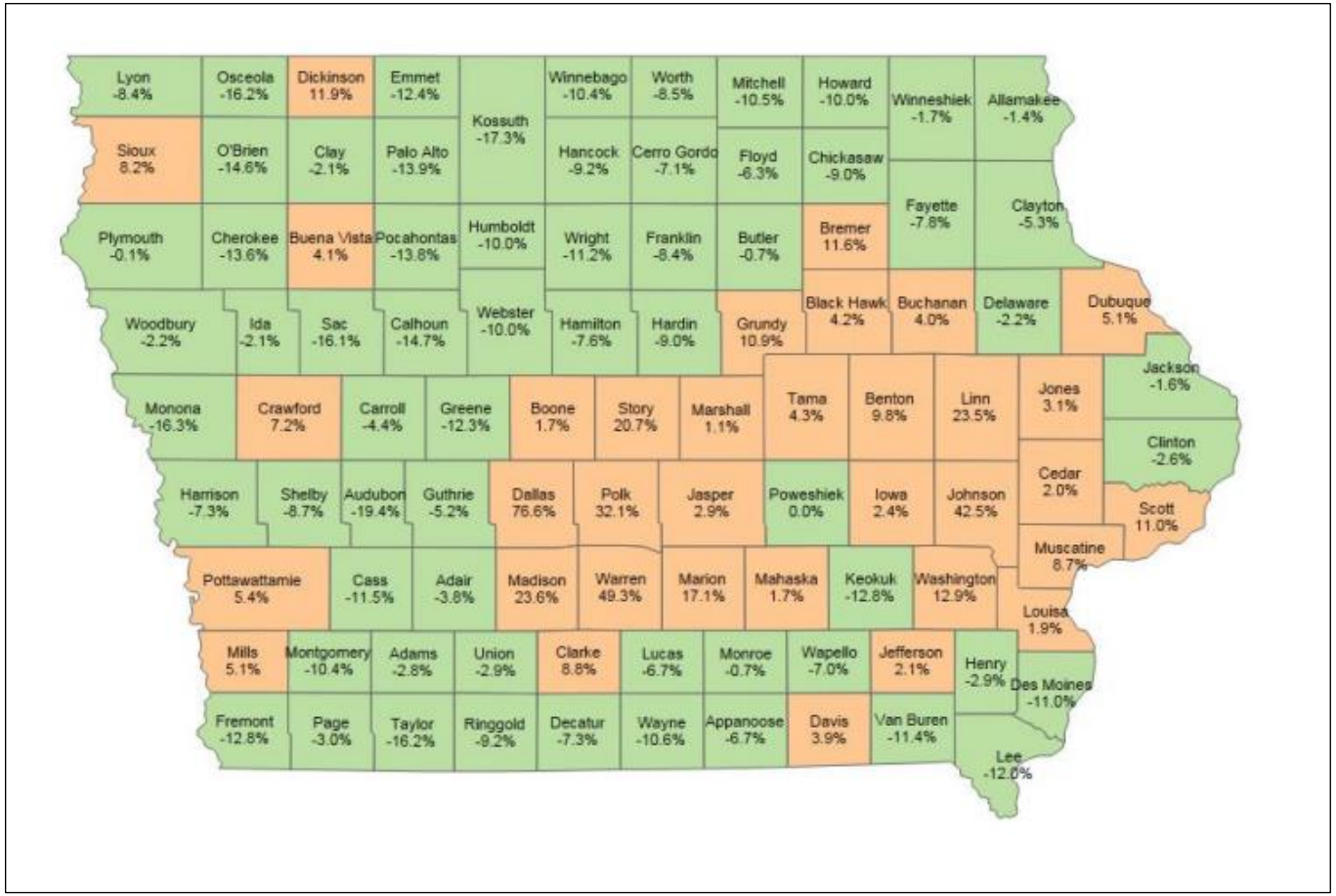
Table 2-4: Population Change by County in the Creative Corridor, 2004-2014

				5-year Change		10-year Change	
	2004	2009	2014	#	%	#	%
Benton	26,478	26,720	25,680	(1,040)	-3.9%	(798)	-3.0%
Cedar	17,980	17,959	18,411	452	2.5%	431	2.4%
Iowa	15,787	15,763	16,375	612	3.9%	588	3.7%
Johnson	119,827	130,913	142,287	11,374	8.7%	22,460	18.7%
Jones	20,397	20,100	20,454	354	1.8%	57	0.3%
Linn	197,950	208,973	217,751	8,778	4.2%	19,801	10.0%
Washington	21,080	21,255	22,070	815	3.8%	990	4.7%
Total	419,499	441,683	463,028	21,345	5.0%	43,529	9.8%

Source: United States Census Bureau, Population Estimates

Population projections suggest population growth throughout the region, including Benton County, with continued faster growth in Johnson and Linn Counties. This growth is similar to projections in the Des Moines area, but is uncommon in the State where many counties are projected to experience population declines from 2010-2040.

Figure 2-5: County Population Change Projected 2010-2040



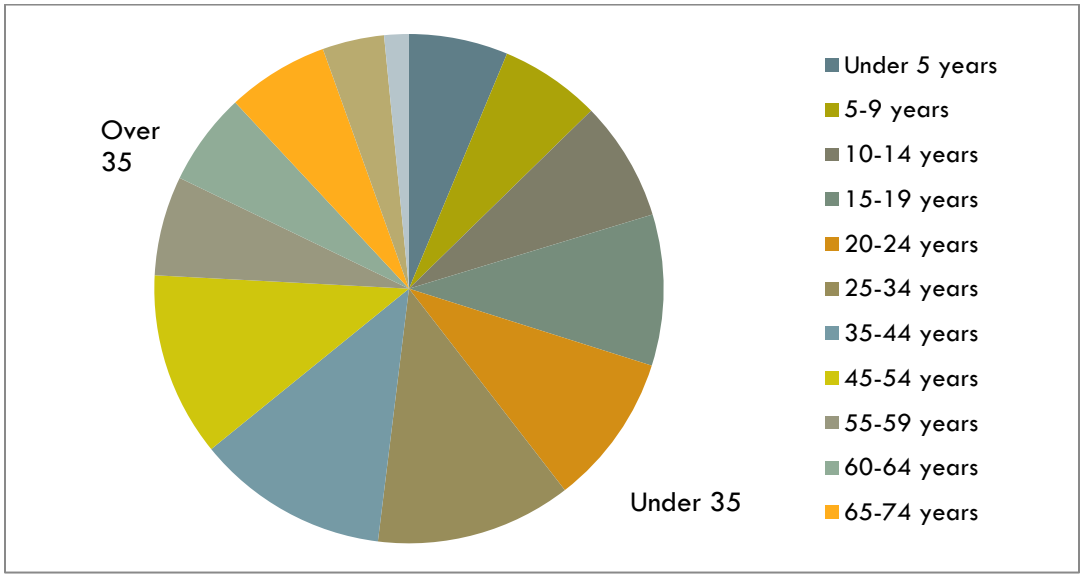
Draw box around region

Source: Woods & Poole Economics, Inc. 2014

Age

The age distribution of the Creative Corridor shows that roughly half of residents are younger than age 35 and half are age 35 and older. However, a closer look at age-related growth trends (see Figure 2-6) shows that the Creative Corridor's percentage of prime working age residents, noted in Figure2-7 is growing at a slower rate than the percentage of those over the age of 65, which is comparable to the State of Iowa as a whole.

Figure 2-6: Creative Corridor Age Distribution



Need to insert bold line around 0-34 and 35+

Source: United States Census Bureau Population Estimates

Figure 2-7: Population Change by Age Group, 2009-2014

	Under 20	*20-24*	*25-34*	*35-44*	*45-64*	*Over 65*
Creative Corridor	*0.6%*	*7.4%*	*3.3%*	*0.5%*	*4.5%*	*15.7%*
State of Iowa	*-0.5%*	*7.8%*	*4.0%*	*-1.4%*	*1.3%*	*9.2%*

Source: United States Census Bureau, Population Estimates

Diversity

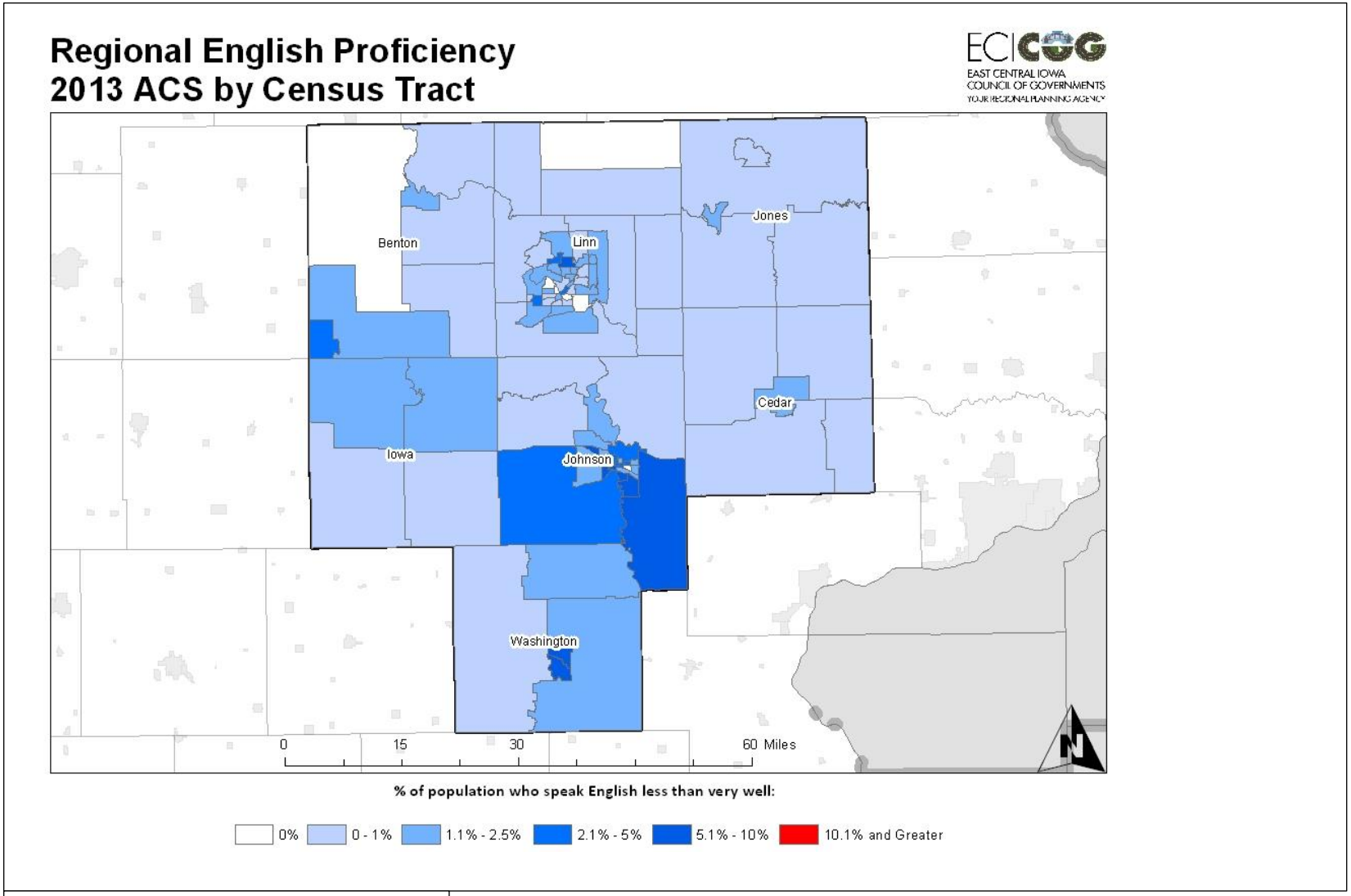
Like some of the national trends, Iowa's Creative Corridor is becoming more diverse; however, as noted in Figure 2-8, it remains predominantly White, non-Hispanic. In addition, the majority of the region's population is proficient in English. Figure 2-9 summarizes the region's English proficiency by census tract, and indicates that there are one to two census tracts in Linn, Benton, and Washington Counties where 5.5-10 percent of the population speaks English less than "very well." A more significant portion of the population in Johnson County speaks English less than "very well", and this is likely attributable to the presence of the University of Iowa.

Figure 2-8: Regional Racial Composition in Iowa's Creative Corridor

	Benton	Cedar	Iowa	Johnson	Jones	Linn	Washington	Total
Total	26,076	18,499	16,355	130,882	20,635	211,226	21,704	463,028
White	25,802	18,27	16,117	114,745	20,021	196,499	21,103	394,332
Black or African American	208	116	108	7,549	455	11,230	238	19,904
American Indian or Alaska Native	126	98	69	916	90	1,625	138	3,062
Asian	98	130	76	7,873	115	4,866	123	13,281
Other or Multiple Races	93	89	113	2,979	87	2,279	438	6,078

Source: U.S. Census Bureau

Figure 2-9: English Proficiency by Census Tract

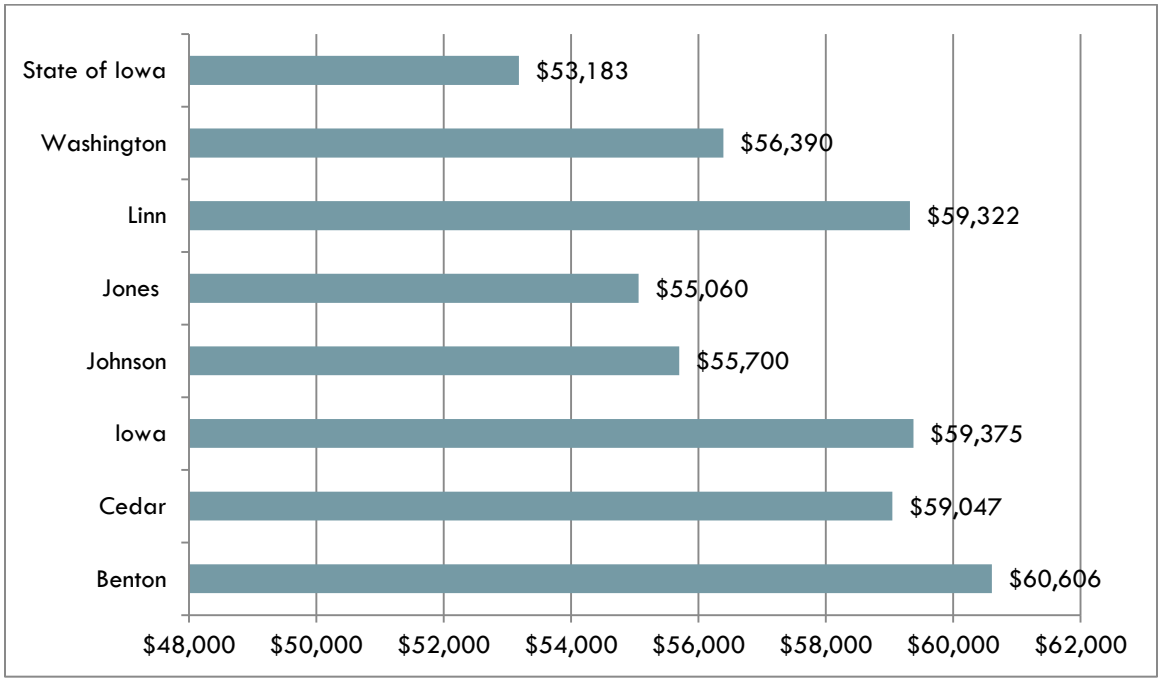


Source: American Community Survey

Household Income

The median household income in all counties in Iowa's Creative Corridor (noted in Figure 2-10) are greater than that of the State of Iowa. The median household income for Johnson County is one of the lowest in the region, but is likely impacted by the significant University of Iowa student population.

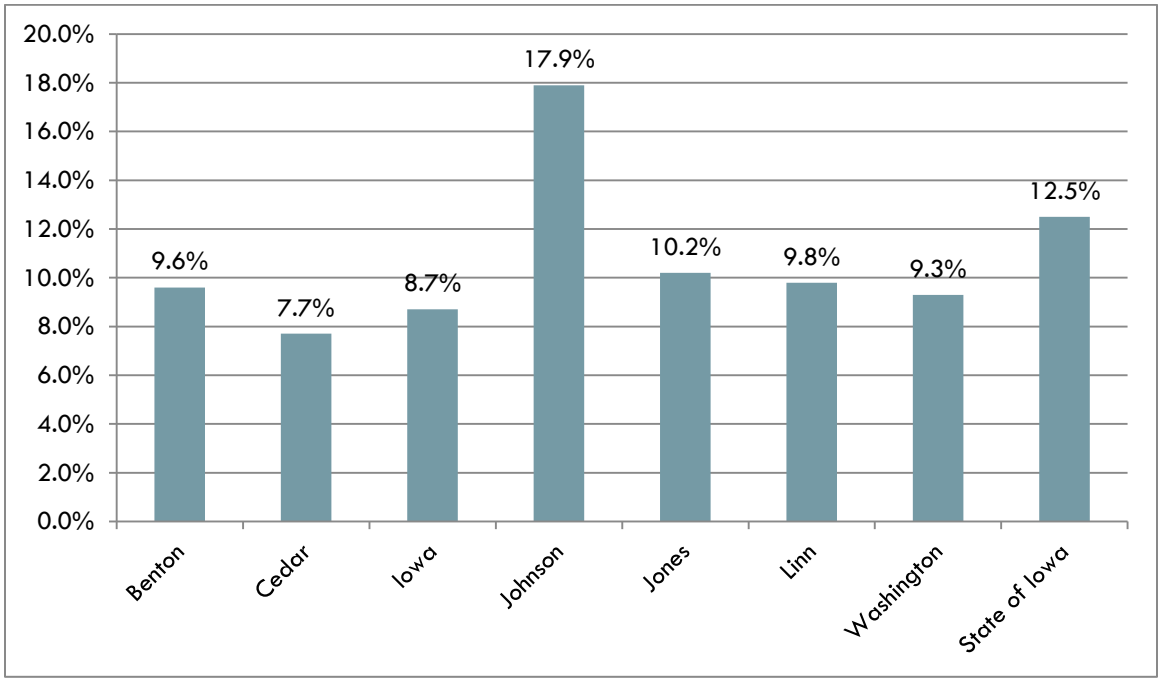
Figure 2-10: Median Household Income in Iowa's Creative Corridor



Source: U.S. Census Bureau

Although the median household income in all counties in the region is greater than that of the State of Iowa, the poverty level in one county in the region is greater than that of the State at 12.5 percent. As noted in Figure 2-11, 17.9 percent of the population in Johnson County falls below the poverty level. This figure is again, however, impacted by the university student population in Johnson County.

Figure 2-11: Poverty Population in Iowa's Creative Corridor



Source: U.S. Census Bureau

Employment

As can be seen in the table below, nearly all of the fifty largest employers in the region are in Linn and Johnson Counties. A few major employers in the rural areas rank within the top fifty, and those locations draw both from the surrounding rural areas as well as nearby urban areas.

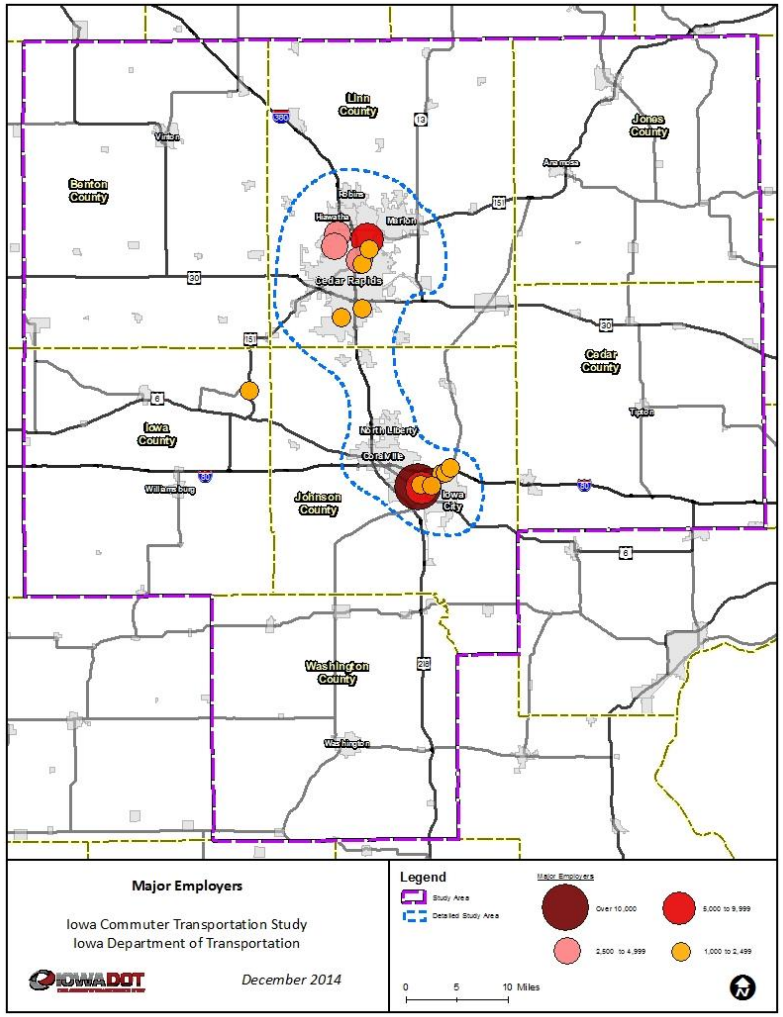
Figure 2-12: Top 15 Employers in the Creative Corridor

Company	Employees	Industry	Headquarters
University of Iowa	22,827	Education	Iowa City, Iowa
University of Iowa Hospitals and Clinics	11,551	Healthcare	Iowa City, Iowa
Rockwell Collins, Inc.	9,400	Electrical Equipment and Design	Cedar Rapids, Iowa
Transamerica	3,800	Insurance/Financial	The Hague, The Netherlands
Unity Point Health – St. Luke's Hospital	2,979	Healthcare	Cedar Rapids, Iowa

Cedar Rapids Community School District	2,879	Education	Cedar Rapids, Iowa
Whirlpool	2,500	Equipment Manufacturing	Benton Harbor, Michigan
Nordstrom Direct	2,150	Logistics/Distribution	Seattle, Washington
Mercy Medical Center	2,140	Healthcare	Cedar Rapids, Iowa
Pearson	1,765	Publishing	Iowa City, Iowa
Iowa City Community School District	1,700	Education	Iowa City, Iowa
Veteran's Health Administration	1,562	Healthcare	Iowa City, Iowa
City of Cedar Rapids	1,309	Government	Cedar Rapids, Iowa
ACT, Inc.	1,243	Education	Iowa City, Iowa
Four Oaks	1,100	Non-profit	Cedar Rapids, Iowa

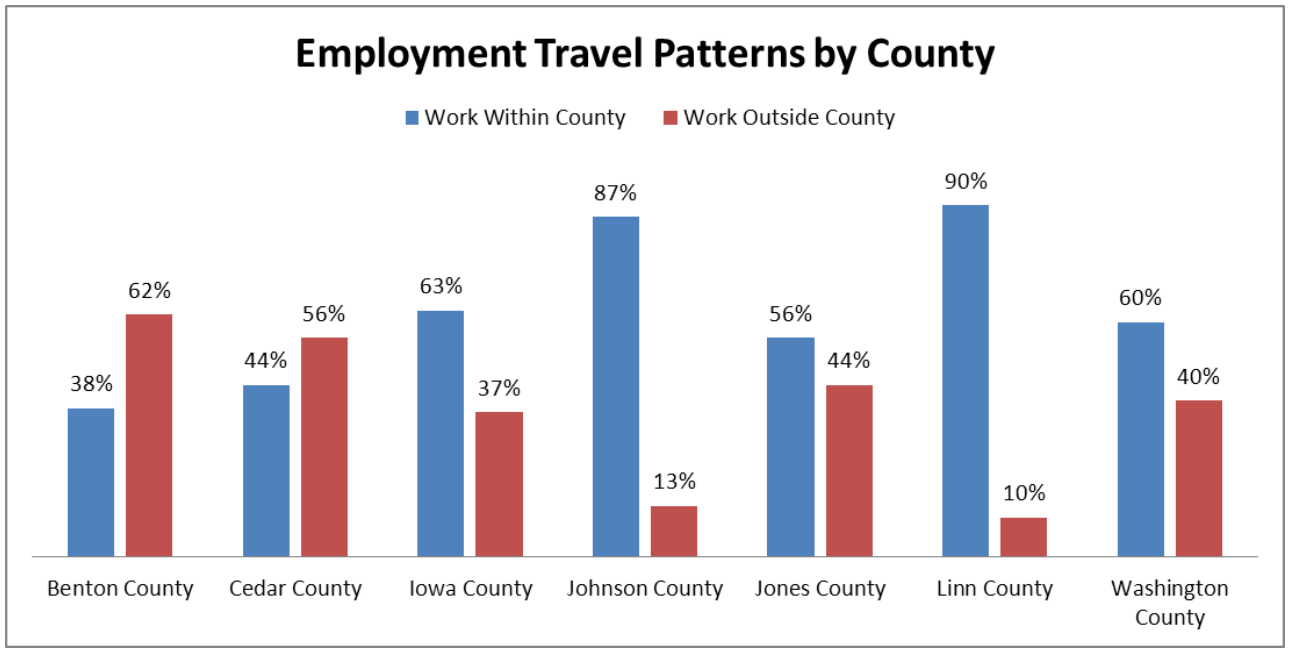
As Figure 2-13 demonstrates, the location of largest employers in the region is concentrated in the Cedar Rapids and Iowa City metro areas; the map in the figure was created in 2014 during the DOT study on commuter transportaiton.

Figure 2-13: Map of Largest Employers in Iowa's Creative Corridor



Employment travel patterns in Iowa's Creative Corridor vary. As detailed below, the two urban counties (Johnson and Linn) display similarities, while the four rural counties show different trends. In Johnson County, 87% of workers lived and work in the county, and this number was slightly higher in Linn County, at 90%. The trend in rural counties was that fewer residents work in the county in which they live. This suggests that transportation to employment for those living in the rural counties consist of inter-county travel, and likely is due to more employment opportunities in the urban counties.

Figure 2-14: Place of Residence and Employment

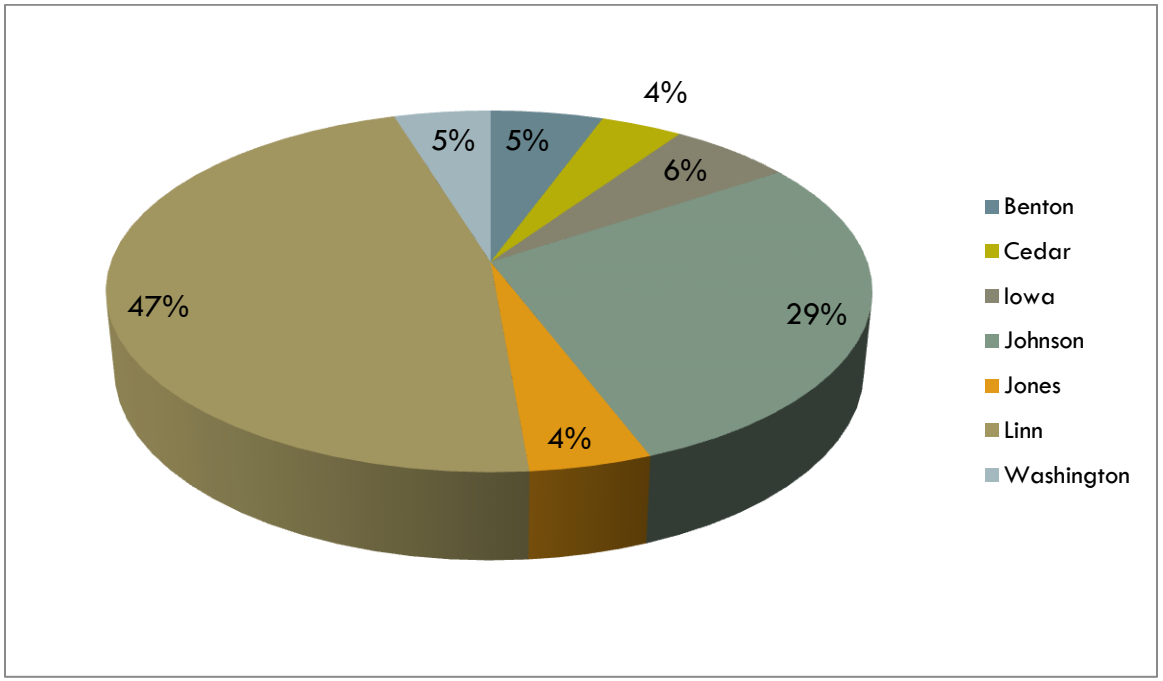


Housing

Total housing units, depicted in Figure 2-15, in the region is 200,489. The percentage of units that were renter-occupied was 28.9 percent, which is only slightly higher than that for the state. Within the region, the percentage of renter-occupied units varied greatly, from 12 percent in Iowa County to over 40 percent in Johnson County, which isn't surprising given the presence of the University of Iowa in the Iowa City metropolitan area.

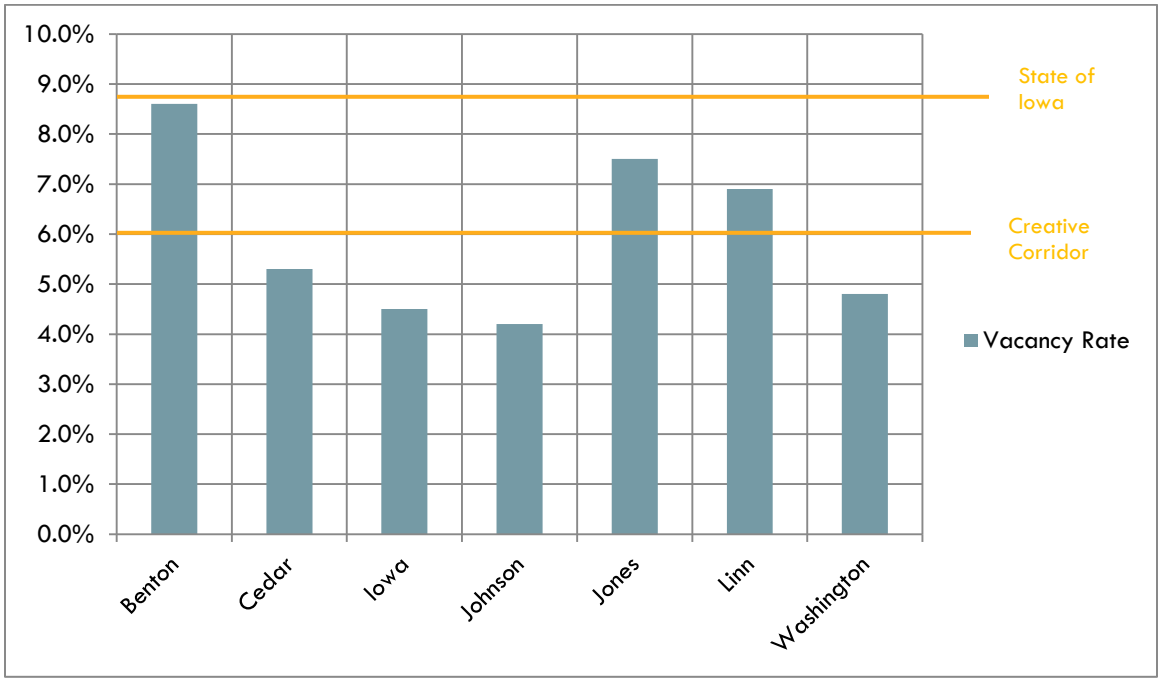
As noted in Figure 2-16, the vacancy rate for the Creative Corridor is 6.0%, while the State's was 8.6%. Johnson County had the lowest vacancy rate in the region, with 4.2%, which is influenced in part by the presence of the University of Iowa.

Figure 2-15: Housing Units in the Creative Corridor



Source: American Community Survey, 2010-2014 Estimates

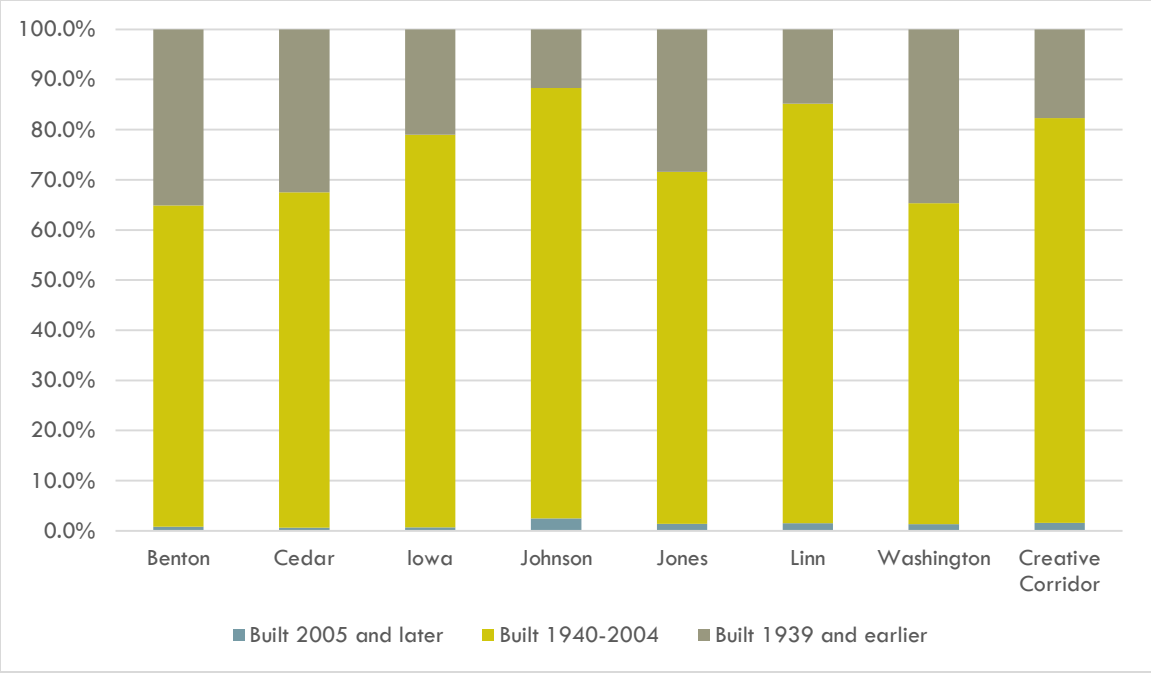
Figure 2-16: Vacancy Rates in the Creative Corridor



Source: American Community Survey, 2010-2014 Estimates

The age of housing stock can be an indication of condition of housing, if effort hasn't been made to make improvements to older homes. Age also indicates how much new construction is being dome, which indicates growth. Nearly two percent of occupied housing stock has been built after 2004. This is slightly higher than that for the state; however, the proportion of newer units built varies greatly among counties in the region. Less than one percent of housing units in Benton, Cedar, and Iowa Counties were newer units and 2.5% of Johnson County's units were built after 2004.

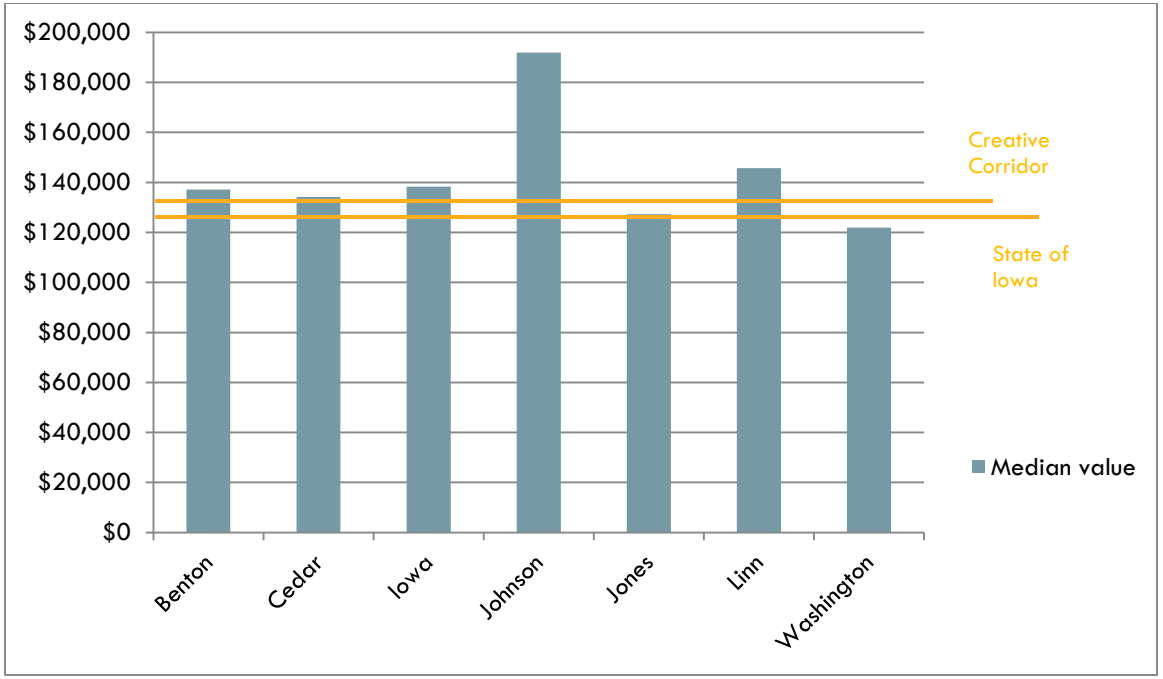
Figure 2-17: Age of the Housing Stock in the Creative Corridor



Source: American Community Survey, 2010-2014 Estimates

The median value of owner-occupied housing, shown in Figure 2-18, was slightly higher for the region, at $137,100, than that for the entire state, at $127,300. The values of the units are likely reflective of both the condition of housing and the vacancy rates.

Figure 2-18: Median Value of Owner-Occupied Units in the Creative Corridor



Source: American Community Survey, 2010-2014 Estimates

Land Use

Land use regulations vary substantially across Iowa's Creative Corridor. In general, the largest jurisdictions within the region have the most specific land use regulations. In Iowa, a jurisdiction must first have a land use plan in order to implement zoning. The level of detail on land use plans varies substantially, with some counties having only a map (Jones), while other counties have designated land use planning districts (Linn and Johnson). Still others have plans but no map (Benton). Within the six-county ECICOG region, Linn County and Johnson C ounty have long standing zoning ordinances and detailed land use plans that provide targeted areas of residential growth for their respective metro areas as well as farm land protection and natural resources conservation. Washington County and Jones County developed zoning ordinances that primarily address farmland conservation; however, Washington County's was rescinded in 2010. Benton and Iowa Counties do not have zoning. Regulations regarding land use are often related to the natural features of the jurisdiction in question. Some areas within the region tend to be flat with high corn suitability ratings (CSR), leading toward regulations that heavily favor protection of agricultural land, such as in Benton County. Other areas have woodlands and floodplain protected by planning designations and zoning. Available land use maps are provided in Appendix H.

Environment

The region is typically characterized by generally rolling land, with some rolling hills and river valleys. The original vegetation consisted of a mixture of forests and prairies. One of the region's most valuable resources is its prime farmland. Cedar County, for example has one of the highest CSR in the entire state. The region contains a limited number of nonrenewable natural resources upon which to base the economy, including clay, coal, gypsum, sand, gravel, and limestone.

Water

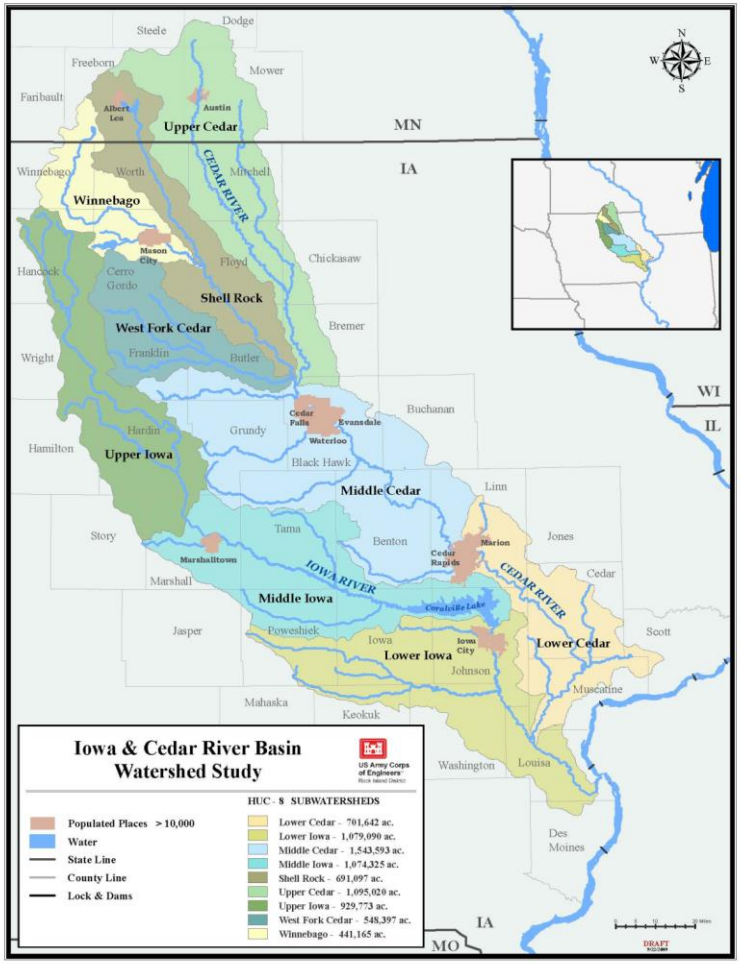
Water quality is a serious physical constraint to development within the region. Groundwater is readily available, but is either shallow (100-400 feet), or very deep (over 2,000 feet). Shallow wells are susceptible to surface pollution from fertilizers, manure, and pesticides. Many ground water and surface water supplies contain large quantities of calcium carbonate, iron compounds, manganese, salts, and other materials. In recent years, the region has taken crucial steps to protecting water quality through the formation of new watershed management authorities and watershed planning. Projects shown in the plan will be developed to comply with all applicable state and federal water quality standards. Figure 2-19 notes the regional watersheds and source waters.

Soils, Rivers, and Resources

Benton - The County is on a loess-covered glacial till plain. The soils in the dominantly gently sloping and moderately sloping areas formed in loess and till under prairie vegetation. Two major drainage systems, the Iowa River and the Cedar River, receive runoff. The Cedar River and its tributaries drain nearly 90 percent of the county. Prairie Creek, a major tributary of the Cedar River, drains much of the southern part of the county. The Iowa River, which flows across the southwest corner, drains about 10 percent of the county.

Cedar - The County is the second lowest-lying county in Iowa's Creative Corridor after Washington County. The county is traversed by the Cedar River, running from the northwest corner through the south and central portions of the county. Cedar County is relatively flat and free of large areas of floodplain, contributing to the highest

Figure 2-19: Watersheds in Iowa's Creative Corridor



CSR rating of any county in the region, and the seventh highest in the entire state.

Iowa - The County is a gently rolling to steep upland plain, with many rivers and streams. The area north of the Iowa River is characterized by deep valleys and ravines that have steep slopes. Small streams extend back into the upland. The bottom lands along the Iowa River are nearly level. Hills on either side of the flood plain rise from 100 to 200 feet above the river. Streams and drainageways have dissected most all parts of the county. The Iowa River extends from west to east through the northern part. Honey Creek, Big Bear Creek, and Little Bear Creek are the main tributaries flowing into the Iowa River from the south. Price Creek is the main tributary from the north. From Conroy eastward, the area is drained by Clear Creek, while the southern part of the county is drained by the English River and its tributaries.

Johnson - The County is located in the Mid-Western Upland Plains of the Central Lowlands. It is drained by two rivers that carry drainage water southeastward toward the Mississippi River. The Iowa River is the principal watercourse; together with its tributaries, the Iowa River drains 95 percent of the county. The other major watercourse in Johnson County is the Cedar River. With its tributaries, the Cedar River drains the northeastern corner of the county. The original vegetation of Johnson County consisted of a mixture of forests and prairie. Much of the county's remaining forests are federally owned by the U.S. Army Corps of Engineers and leased to the IDNR. Some wooded areas remain near the Coralville Reservoir and Lake MacBride in the north central part of the county, while smaller, forested areas are found near streams and in areas where cultivation is difficult or undesirable because of potentially serious erosion. Because these wooded areas in the northern part of the county are not suitable for farming, they have been largely contained within the residential growth area known as the North Corridor. Thus, as growth continues, these remaining woodlands will become more fragmented and the risk of soil erosion and waterway pollution will increase.

Jones - One of the most important natural resources in Jones County is soil. The value of soil as a factor in land use development is becoming more widely recognized. Soil analysis can reveal important factors relative to the potential of lands for residential, industrial, and recreational uses. The soils of Jones County are grouped into four classes based on origin and location: drift, loess, terrace, and swamp and bottomland soils. Generally, the county's soils have only slight to moderate limitations for agricultural use, while having generally moderate, severe, or very severe limitations for other uses such as septic tanks, highway construction, recreational or cottage uses. Before developing any area in Jones County, a detailed soil survey is a precursor for determining the ideal use of a parcel of land. Much of Jones County is typified by rolling hills and river valleys. Almost all of Jones County lies between 750 and 1050 feet above sea level. Most of Jones County's municipal water comes from two dominant rivers in the area: the Maquoketa and the Wapsipinicon. The Wapsipinicon River runs from the northwest corner along an east by southeasterly course which passes many of Jones County's southern towns including Anamosa, Olin, and Oxford Junction. The Maquoketa River runs in the same direction but enters from the northwestern portion of the county before heading toward Monticello and southeast towards Canton.

Linn - Surface water throughout the county drains to four major drainage areas. Surface water in the southwestern part of the county drains to the Iowa River. The vast majority of surface water in the county drains to the Cedar River. Its drainage area cuts a swath from northwest to southeast. Its boundaries are from east of Walker, southeast to U.S. Highway 151's intersection with the eastern line of Linn County and from Just north of Walford to Iowa Highway 1's intersection with Linn County's south boundary. Surface water in northeastern Linn County is drained by the Wapsipinicon and Maquoketa Rivers. Over 69 percent of the soils in Linn County are from Iowan drift. Mississippi loess soils are second in extent and cover 18 percent of the county. Terrace soils compose 6.4 percent of the county and bottom land soils cover 5.9 percent of the county. The topography of the county is composed of predominantly gently rolling hills. Higher areas are located in the north with lower areas in the south. The

entire county slopes generally down to the southeast. Hills and ridges are prevalent along the Cedar River valley in the northern part of the county and along the Wapsipinicon. Agricultural and urban development is difficult in these areas because of the rugged topography, numerous tree stands, and forested areas.

Washington - The land in Washington County varies from gently rolling to rolling and is hilly along large streams. Between the Skunk and English Rivers lie broad level areas. The English River flows from west to east along the northern part of the county. The Skunk River runs through the southwest corner of the county from the northwest to the southeast. The soil is rich in organic matter and is some of the best to be found in Iowa. The dark color of the soil in Washington County is caused by the presence of coal. The quality of the coal is poor and was rarely over two to three feet thick.

Climate
The region's continental climate is characteristic of definite warm and cold periods separated by springs and falls of great temperature fluctuations. The climate is not overly restrictive to urban or rural development, but can pose seasonal concerns for structures that use large amounts of energy for heating/cooling. The frost-free growing period is approximately 145 days in length, which provide an excellent host for growing beans, corn, and other plants.

Air
The region is currently in full attainment for air quality. According to the Department of Natural Resources statewide air monitoring data there are no areas of concern in the region at this time. There are, however, areas of near-nonattainment. The region will continue to monitor federal air quality standards for changes that could affect the current status.

Climate Change
Any climate changes during the time frame of this document are not expected to have a measurable impact on proposed projects.

Planning Area Conclusions

Over the past ten years, the region has experience slow, but steady growth. This growth is projected to continue at a similar pace, and the region must be prepared to accommodate with employment opportunities, initiatives to maintain or enhance the desired quality of life, and necessary infrastructure.

The greatest area of population growth has been amongst older residents, with substantially slower growth amongst those of primary working age. Attracting workers to the area is already an issue and the region will need to continue to address the labor demands of area employers, and additional accommodations may be necessary to meet the needs of the aging population – including demands for more assisted living accommodations and public transportation options.

Although residents remain predominately White and English speaking, the population is diversifying. In addition, pockets of poverty exist within the region. As the workforce diversifies, the region may need to consider additional workforce training opportunities, including diversity training and English as a second language courses. Cost effective, public ridesharing options will need to be available for those with fewer financial resources.

While employment opportunities exist throughout the region, nearly all of the largest employers in Iowa's Creative Corridor are located in Linn and Johnson Counties. Regardless of location, however, employers are drawing workers from throughout, and beyond, the region. Maintaining adequate housing and transportation infrastructure is necessary to the region's economic vitality. From a transportation perspective, infrastructure must adequately move both people and freight.

Both land use and the environment can affect the quality of life in Iowa's Creative Corridor, and are important considerations in the planning process. In addition, all transportation projects completed with federal assistance must comply with the National Environmental Protect Act (NEPA). Accordingly, any development outlined in CRDS 2040 will need to take into account local land use plans and/or zoning ordinances, and consider environmental impacts.