

# Connect QC 2050

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## Regional Vision

*“Create an economically-resilient region that attracts and retains both businesses and a talented workforce through the collaboration efforts of the region’s public and private economic development leaders, and the implementation of the Bi-State Economic Development Strategy (CEDS).”*

## The Transportation Network Vision

The Quad Cities transportation network vision serves to connect residents to where they live and work. The system serves as a connection to activities they do. It should also serve visitors and moving goods/services efficiently and effectively. This chapter outlines the regional vision and development goals and transportation objectives for the Quad Cities transportation network. A background on the Quad Cities Iowa/Illinois Metropolitan Planning Area (MPA) provides important pieces of information needed to plan an efficient, safe, and responsive transportation network. Data on the Quad Cities and the transportation issues facing the area will be discussed in this chapter. These discussions provide a backdrop for the regional vision and the transportation goals and objectives.

Using the vision and goals, an outline for moving them forward will be provided in this plan. Plans are not static. The long range transportation plan is updated every five years to address changing conditions. If expectations and conditions change greatly, then there is a need to address plan revisions and the process for those occasions.

As a backdrop to this plan update, the 2020 global pandemic has impacted how we travel, move goods, and provide services. When looking to 2050, it is hoped this will be an anomaly in our present reality of curtailed mobility and impacted economy. The long-term implications are expected to result in changes to the way business is conducted, and how goods and services are exchanged. Early indications are shifts to greater work-from-home opportunities, greater delivery services via online transactions, fewer storefronts, and more dependence on systems to address essential needs. There is much uncertainty to the underpinning of this plan update, but the Quad Cities has weathered a number of economic downturns in the last 30 years by becoming a more diversified economy, addressing resilience, and working together for the greater regional stability and success.



## *Vision, General Development Goals, and Transportation Objectives*

A regional vision for the greater Quad Cities Area, as outlined in the Bi-State Region Comprehensive Economic Development Strategy, is as follows:

***“Create an economically-resilient region that attracts and retains both businesses and a talented workforce through the collaboration efforts of the region’s public and private economic development leaders, and the implementation of the Bi-State Economic Development Strategy (CEDS).”***

Resilience is an important term drawn from this vision. Natural disasters cost our country billions of dollars each year, including damaged infrastructure, job and housing loss, and losses in human life. Resilience is defined as “the ability to prepare and plan for, absorb, recover from, or move forward successfully to adverse events” (American Association of State Highway Transportation Officials (AASHTO)). The regional vision recognizes that creating a network of connections, socially, economically, and to the environment will build a more resilient region and metropolitan area.

The *2050 Quad Cities Long Range Transportation Plan* has been developed in concert with many stakeholders and technical and elected officials, and through a focused public involvement process. The Quad Cities transportation system provides key infrastructure to support the region’s economic vision and carry it to fruition by 2050. The network of streets and highways, rail lines, transit routes, bikeways, sidewalks, runways, and riverways can allow the vision to be achieved or be a hindrance. It can either connect people and goods to/from the Quad Cities and worldwide or not. To be effective, the Quad Cities transportation system needs to be maintained and enhanced through connectivity, safety, security, efficiency, and sustainability. From this effort, the system can grow and attract talent, businesses, and tourism; showcase our culturally-rich community; and tap into innovation and learning opportunities.



## Metro Development Goals

The basis of the Quad Cities transportation system rests on goals outlined in this plan, and tie back to the region’s economic development strategy. These development goals are supported through project selection and programming within the Transportation Improvement Program (TIP). The Quad Cities MPA goals are proposed to reiterate and refine those outlined in prior long range transportation plans. The *2050 Quad Cities Long Range Transportation Plan* development goals are:

**Residential Development** – Cultivate diverse, quality-based residential areas for people-friendly, healthful, satisfying living.

**Commercial and Industrial Development** – Foster talent, entrepreneurship, and economic and technological innovation to retain employees/employers, and attract new businesses that generate economic vitality.

**Transportation** – Develop a resilient transportation system to provide for the sustainable movement of people and goods.

**Centers for Learning, Cultural Attractions, Recreation, and Open Space** – Connect people to centers for learning, cultural attractions, recreational facilities, and open space to fulfill needs for community well-being, and engage visitors in our amenities.

**Government and Public Facilities and Installations** – Advance governmental and public facilities/installations, programs/services, and products that will provide sufficient capacity for the present and future needs of the nation, Bi-State Region, and Quad Cities community.

**Urban Design** – Create safe, secure, attractive, convenient, equitable, community-based living and working conditions that minimize negative outcomes and provide quality of life benefits for Quad Cities residents.

**Diversity, Equity and Inclusion** – Foster development plans and processes to serve and benefit all residents in ways that reduce, mitigate or eliminate inequity, and encourage diversity and inclusion of environmental justice-defined populations.



## Transportation Objectives

The transportation objectives will guide the course of action for the *2050 Quad Cities Long Range Transportation Plan* and drive the implementation of the overall development goals for the metropolitan area. They reflect the federal transportation emphasis areas in the FAST Act addressing the movement of goods and people, both residents and visitors. The transportation objectives include the following priorities based on public input in order of importance:

### Increase Accessibility and Mobility Options

- Maintain, improve, and expand river crossing capacity
- Support implementation of passenger rail service to/from the Quad Cities
- Design the transportation system to provide convenient access to essential services and alternative transportation options for the movement of goods and people, giving consideration to types of users, surrounding context, and service levels (e.g. Complete Streets)
- Encourage land use patterns and transportation services that support transportation alternatives (bus, bike, and pedestrian options), and provide choices for mobility and access
- Promote and enhance facility and service design for persons with disabilities, the elderly, and low-income individuals
- Improve connections to existing modal facilities – airports, barge, rail, and motor freight terminals – and remove or reduce impediments to the movement of goods and services
- Study the feasibility of bus rapid transit, express bus and park-n-ride enhancements to the overall transit system.

### Increase Transportation System Safety

- Encourage comprehensive transportation safety solutions through engineering, enforcement, education, and emergency response to reduce traffic fatalities and severe injury crashes, as well as crash frequencies overall
- Support programs that ensure safe operation of the transportation system for motorized and nonmotorized users, including adequate safety data for problem identification and analysis



**Emphasize System Preservation**

- Support projects that preserve and improve the condition of the existing transportation system in order to maintain a state of good repair
- Preserve planned and proposed transportation corridors whenever feasible

**Engage in Efficient Operations and Management of the Transportation System**

- Seek ways to reduce recurring and non-recurring congestion, and bottlenecks in the transportation network.
- Use technology-based strategies to improve traffic flow, better transit operations, and applications to other modes or intersection of modes of transportation.
- Encourage roadway network improvements to support deployment of autonomous vehicles and other advances in mobility services.

**Enhance the Connectivity and Integration Among Modes**

- Promote interconnections between passenger modes and encourage integrated facilities where intracity and intercity transportation facilities link to other modes, such as transit centers, bicycle facilities, sidewalks, or park-and-ride locations
- Consider connectivity of the various transportation modes in the development of freight transportation facilities
- Promote efficient system management and operation through the use of technology and innovative, context-sensitive solutions
- Encourage use of travel demand management techniques, work zone management, incident response, and Intelligent Transportation Systems (ITS) for better transportation system performance
- Work to coordinate transportation systems through management and operations strategies to reduce congestion and enhance mobility, including support of data collection, analysis, and access to traveler information
- Promote area-wide uniformity in traffic regulations, signs, and enforcement



**Protect and Enhance the Environment**

- Consider urban design context of the community for culture, diversity, history, aesthetics, and the natural environment in development of transportation facilities
- Develop a balanced multi-modal system that enhances the environment and minimizes effects on the quality of the air, land, and water as well as effects to protected groups under Title VI requirements for improved quality of life
- Promote energy conservation and air emission reduction measures to improve air quality and reduce dependence on a single energy source
- Promote early environmental consultation and coordination with resource agencies on planning transportation facilities to identify and develop potential mitigation strategies as part of project development

**Support Economic Vitality**

- Use transportation project programming to support desired development patterns – fill gaps, connect employment centers and attractions, and invest in planned corridors
- Consider regional travel patterns and commuting in the development of the transportation network to encourage proximity of residential areas to jobs in and around the planning area as a process to support affordable housing and healthy lifestyles
- Improve air freight, barge, rail, and truck terminals to enable competitiveness and address freight reliability and capacity needs for productivity and efficiency
- Improve project delivery by accelerating project completion, eliminating delays in the project development and delivery process, reducing regulatory impediments and improving agencies' work practices





**Increase Transportation System Security**

- Support transportation system redundancy to provide alternatives, mobility, and connectivity during emergency situations
- Support programs that ensure secure operation of the transportation system for motorized and nonmotorized users, including adequate transportation data useful for emergency response and/or evacuations
- Encourage cooperative communications and monitoring systems to observe and react to changing conditions and transportation system hazards, natural or man-made

**Address System Resilience**

- Protect and enhance vulnerable transportation facilities subject to recurring extreme weather events that serve critical and/or vulnerable facilities to eliminate or reduce disruptions in the system as a whole.
- Assess planned and new projects for extreme weather vulnerability and evaluate mitigation strategies or actions to reduce impacts.
- Consider building more durable and resilient transportation facilities if damaged and rebuilt.
- Support air emission reductions to lessen impacts for climate resilience.

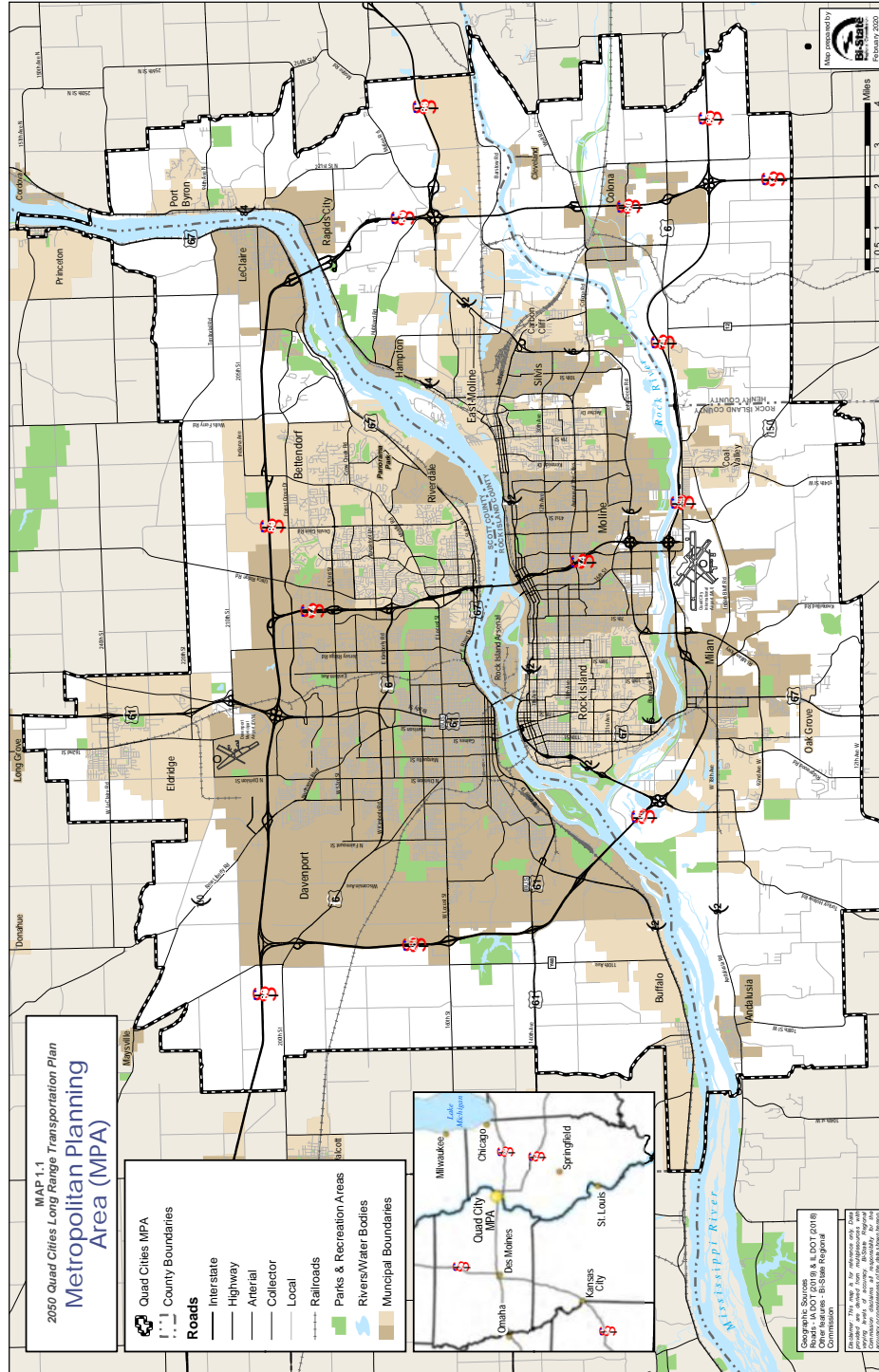


## Background on the Metropolitan Planning Area

### *The Place*

The Quad Cities Iowa/Illinois Metropolitan Planning Area (MPA) is located along the Mississippi River at the Eastern Iowa-Western Illinois border. It covers approximately 391.12 square miles. The MPA is midway between Minneapolis to the north and St. Louis to the south. Chicago is 160 miles to the east, and Des Moines is 173 miles to the west. The MPA includes portions of Henry and Rock Island Counties, Illinois, and Scott County, Iowa. See Map 1.1 for area location map. The MPA boundary represents the designated Census Urbanized Area and the contiguous geographic area that is likely to become urbanized during the 2050 planning horizon. As part of the 2020 Census, this boundary may be adjusted subsequent to this plan depending on the outcome of Census results. At this time, it is assumed the population density and urbanized area boundary will remain relatively the same geographic area.

The Metropolitan Planning Organization (MPO) is located within what is known as the Bi-State Region, or service area of Bi-State Regional Commission, including Muscatine and Scott Counties, Iowa and Henry, Mercer, and Rock Island Counties, Illinois. The MPO is responsible for transportation planning for the Quad Cities MPA and is a function of Bi-State Regional Commission.



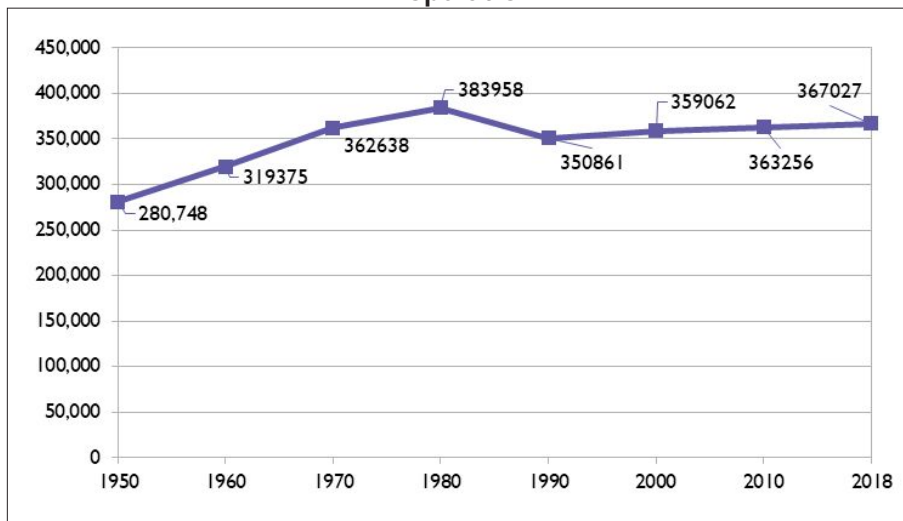


## The People

### Where We've Been

Looking back at the historical growth of the MPA region (three-county area), there has been a 30.7% population increase from 1950 to 2018, with an average of 1,269 persons added per year. In 2018, the MPA region (three-county area) population was 367,027, and the MPA alone was 283,320, as illustrated in Map 1.1). Figure 1.1 shows the historical growth in more detail. The MPA population is nearly to its former highest level of 383,958 in 1980. It was in the late 1980s when the MPA experienced an economic downturn and significant job losses in the farm implement industry. People left the area for other employment opportunities as a result. Leaders in the MPA have worked to revitalize the metro area, and it is reflected in current population figures.

**Figure 1.1 – MPA Region (Three-Countywide Area) Historical Population**

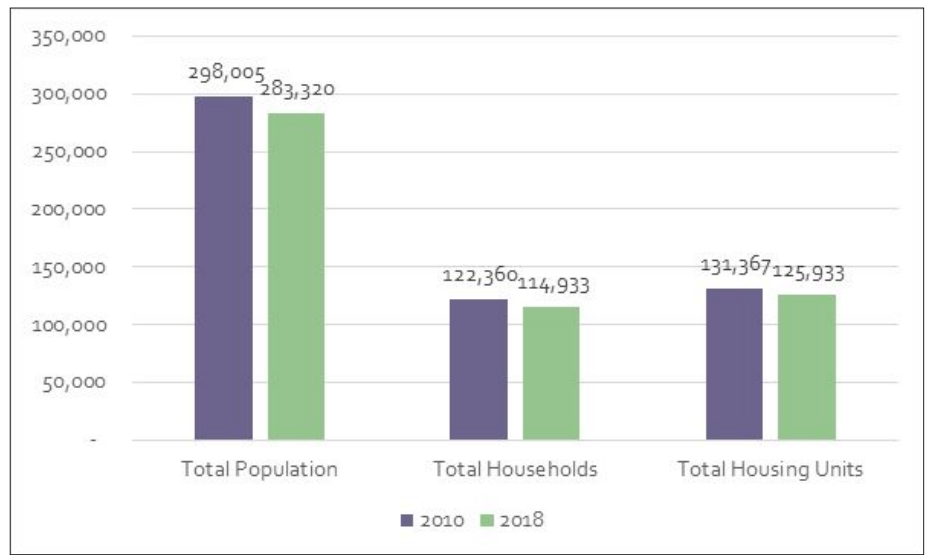


Source: U.S. Census Bureau, Decennial Censuses 1950-2010, 2018 ACS 5-Year Estimates Where We Are Today

In 2018, the total population of the MPA was 283,320, a decrease of 4.9% since 2010. While the three-county population has increased, the MPA lost population to some out-migration. There were approximately 114,933 households and 125,933 housing units. See Figure 1.2 for more details.



**Figure 1.2 – MPA (Subset of Countywide Area) Population and Households**

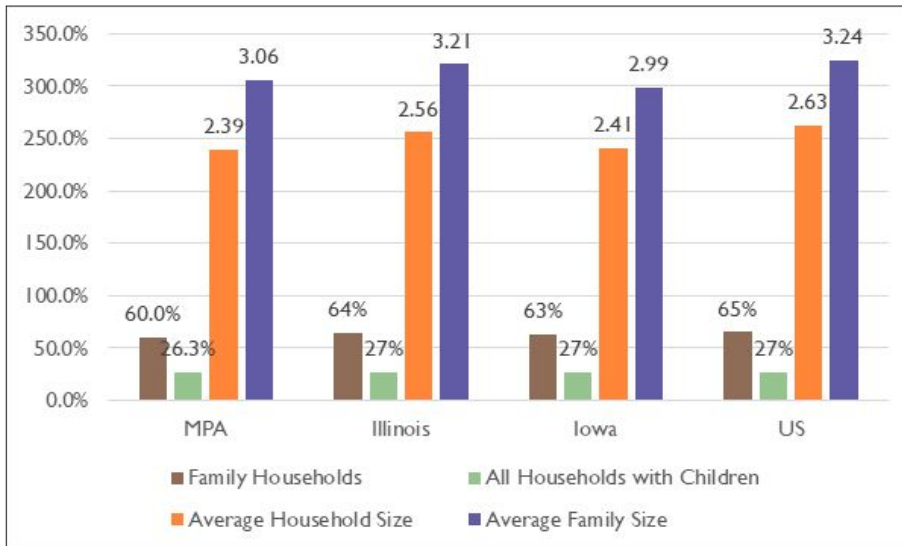


Source: U.S. Census Bureau, 2010 Decennial Censuses, 2018 ACS 5-Year Estimates

There are a total of 114,933 households in the MPA. Family households make up 60% of those households, with 26.3% having children. The average household size of the MPA is 2.39, and the average family size is 3.06. In comparison to the U.S., Illinois, and Iowa, the MPA has a lower average household size and a lower percentage of family households. See Figure 1.3 for household comparison.



Figure 1.3 – Household Comparison

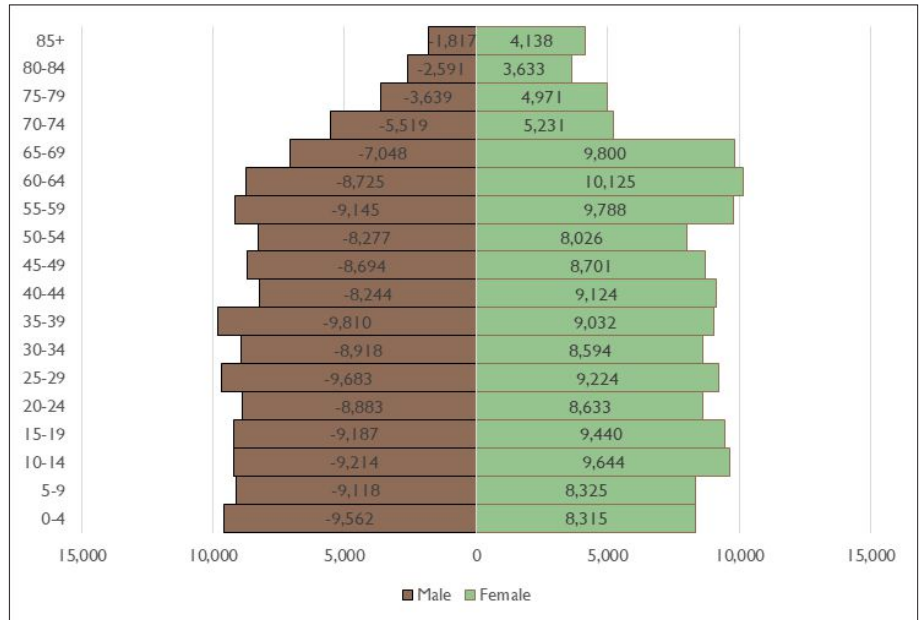


Source: U.S. Census Bureau, 2018 ACS 5-Year Estimates

The MPA is slightly more female than male with 51.2% of the population being female. The median age of the MPA is 38.8, which is higher on average than the U.S. (38.2), Illinois (38.3), and Iowa (38.1). The largest age group is 55-59, 6.69% of the total population in the MPA. See Figures 1.4 and 1.5 for age detail.



Figure 1.4 – Age Distribution by Sex



Source: U.S. Census Bureau, 2018 ACS 5-Year Estimates

Figure 1.5 – Age by Percent of Total Population

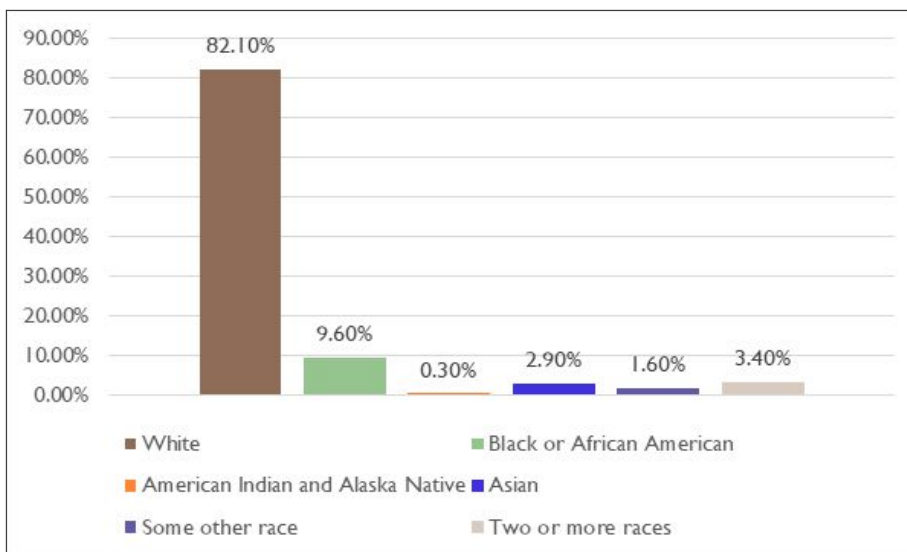


Source: U.S. Census Bureau, 2018 ACS 5-Year Estimates



Overall, the MPA is more diverse than Iowa (90.3% white), but less than the U.S. (72.7% white) and Illinois (71.7% white). The most commonly reported minority race is black or African American alone (9.6%). See Figure 1.6 for race distribution in the MPA. Map 1.2 shows percent minority populations within the MPA. The highest concentrations of minorities are in western Rock Island and central Davenport. Chapter 2 and Appendix C address the geography of where people live and how transportation can help or limit travel. Looking at ethnicity, it is very similar to race with 89.6% of the population in the MPA reporting not Hispanic or Latino ethnicity. The U.S. and Illinois have higher Hispanic or Latino populations whereas Iowa has a lower percentage. See Figure 1.7 for ethnicity comparison. Map 1.3 shows percent of Hispanic or Latino ethnicity within the MPA. The highest concentration of people based on Hispanic or Latino ethnicity are along the riverfront areas of Moline and East Moline as well as in central Davenport.

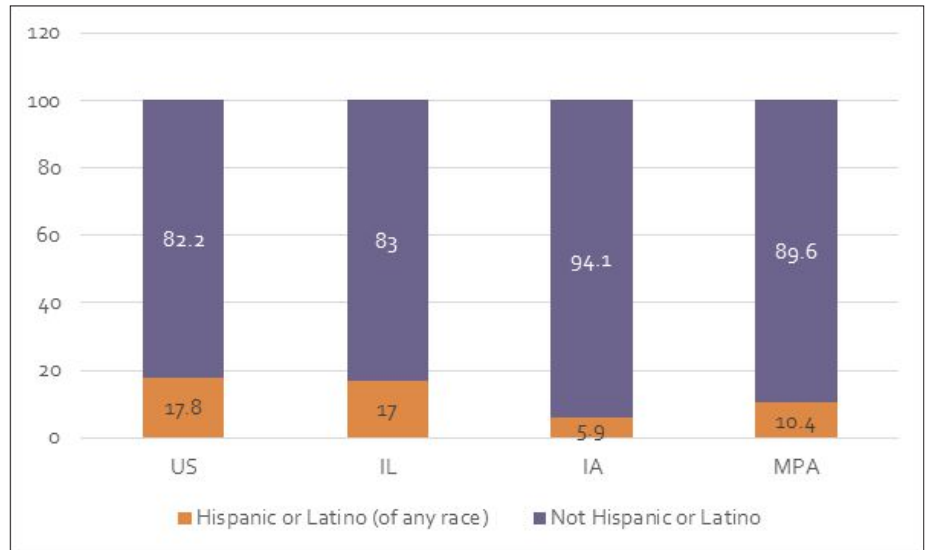
**Figure 1.6 – MPA Race Distribution**



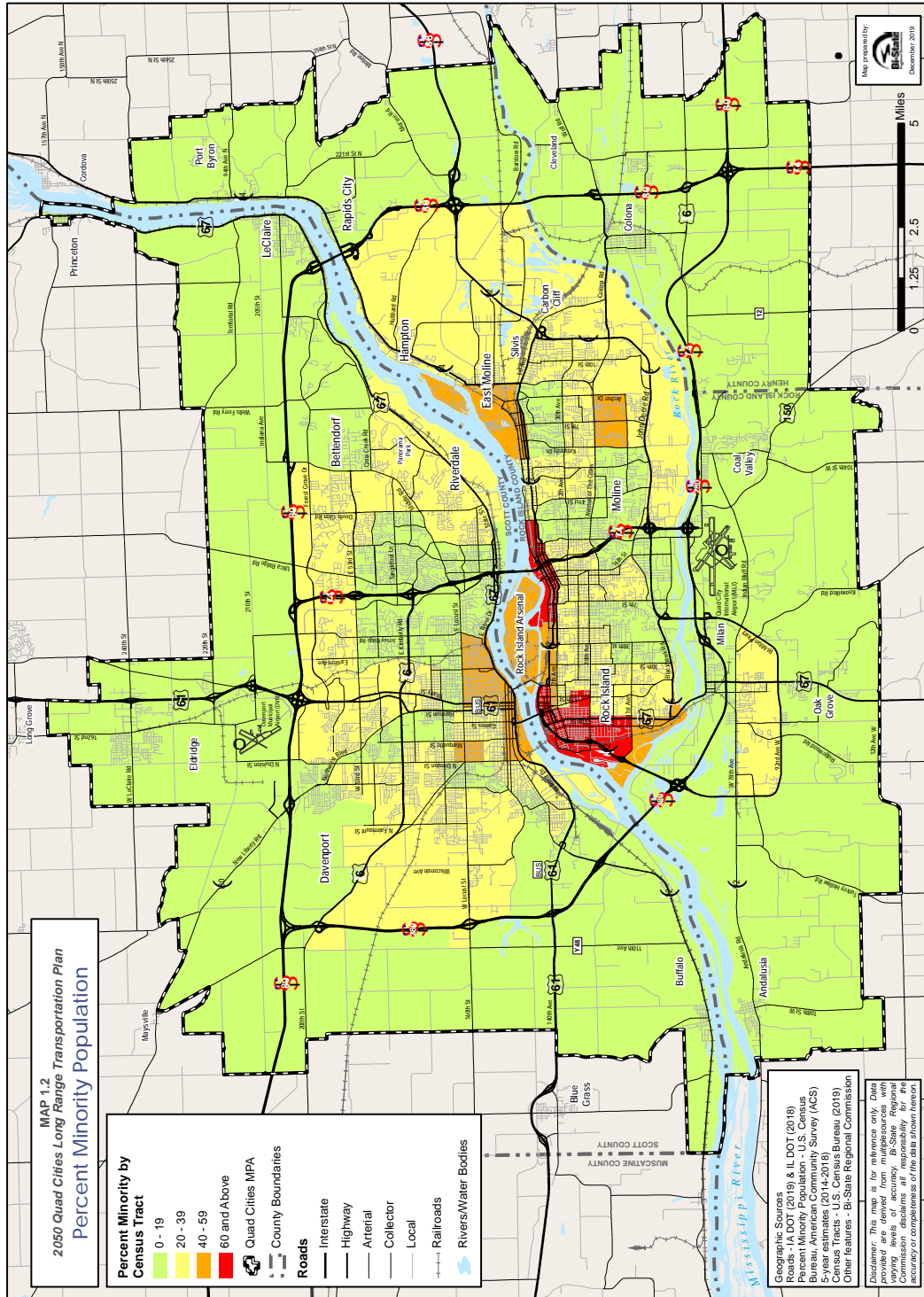
Source: U.S. Census Bureau, 2018 ACS 5-Year Estimates

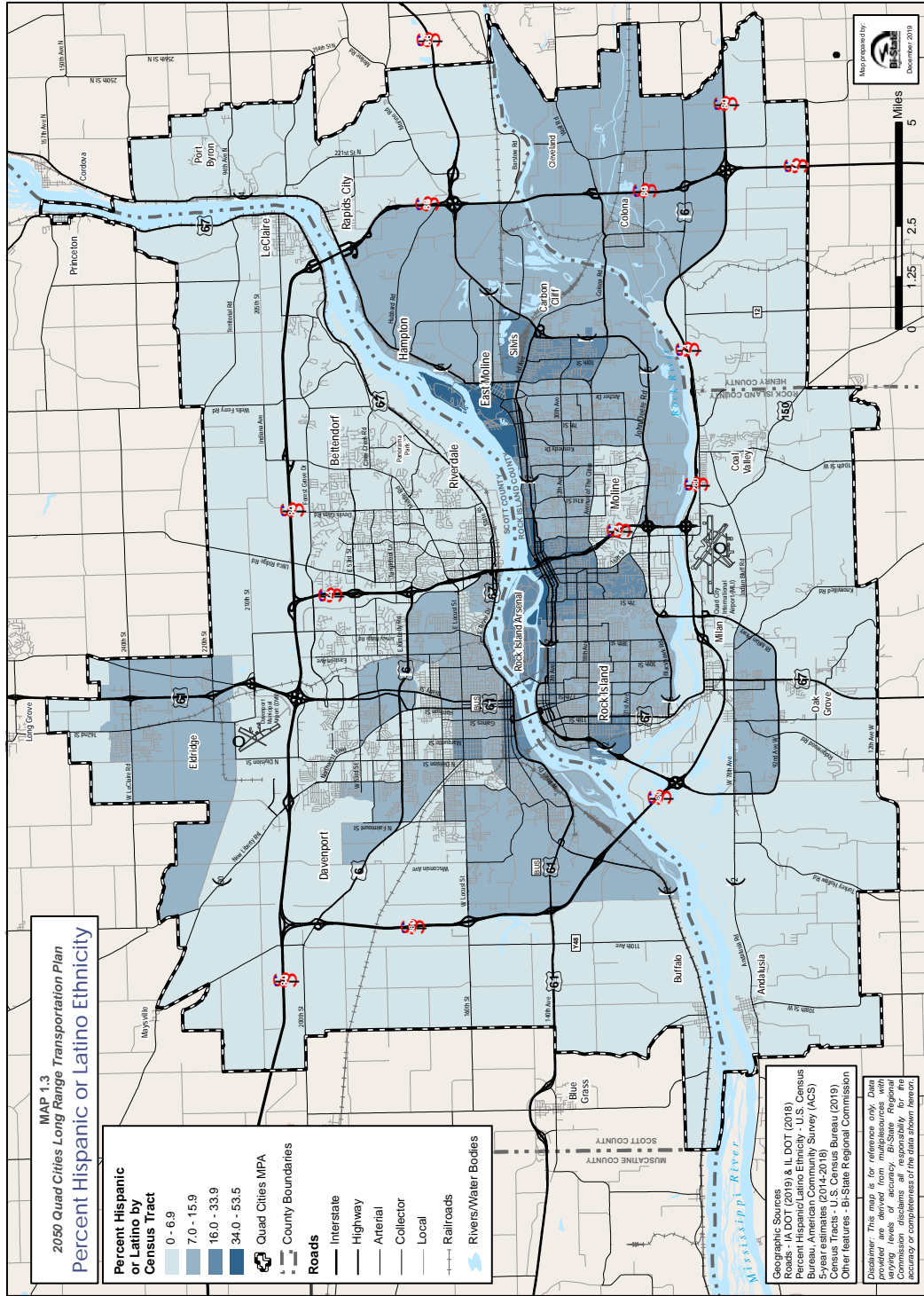


Figure 1.7 – Hispanic or Latino Ethnicity Percent of Population



Source: U.S. Census Bureau, 2018 ACS 5-Year Estimates

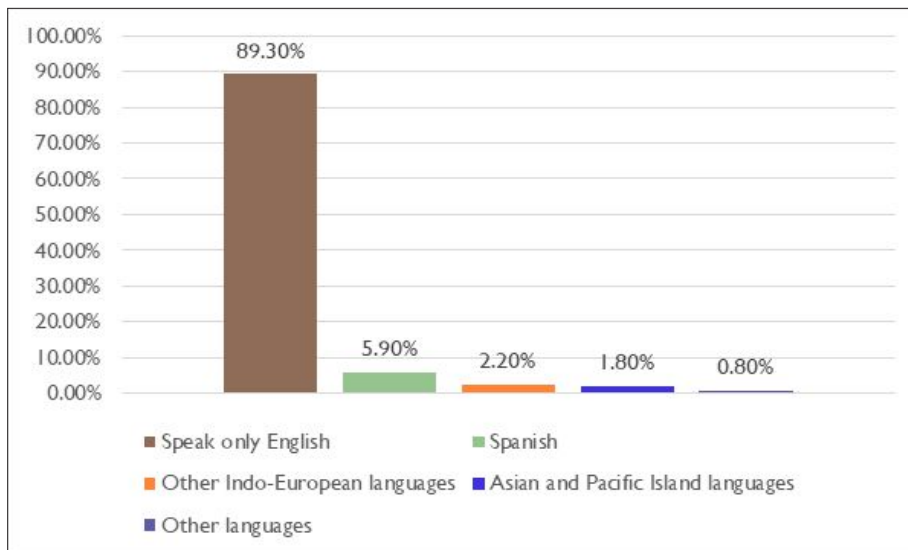






Language proficiency is an important factor in determining the needs of a community. Limited English proficiency can create barriers to services and limit usage of facilities and resources. In the MPA, for the population 5 years and over, 89.3% of the population speaks English only. Spanish is the most commonly spoken other language with 5.9%. See Figures 1.8 and 1.9 for more details. Chapter 2 discusses potential effects that proposed facilities may have by race and limited English proficiency. Appendix C provides maps on social equity of proposed roads, transit routes, trails, and sidewalks.

**Figure 1.8 – Language Proficiency for the MPA Population 5 years and over**

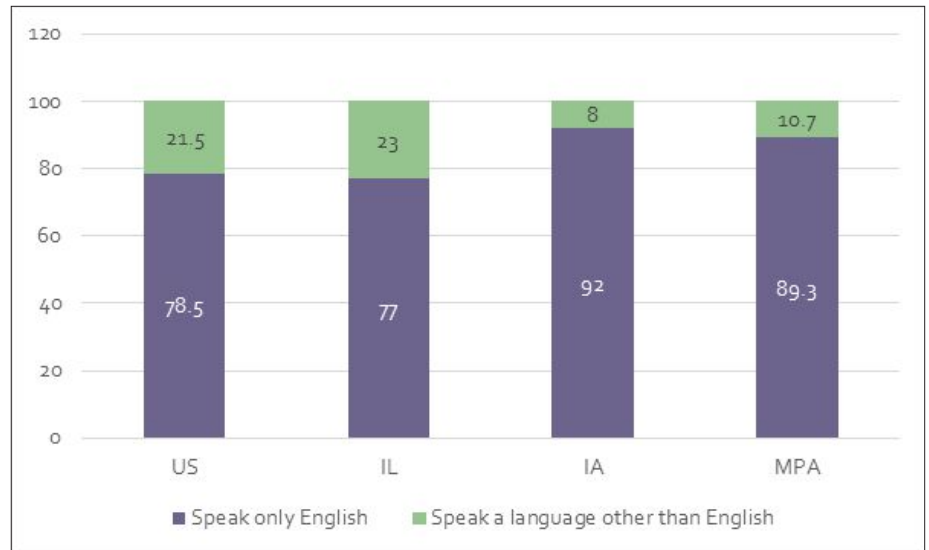


Source: U.S. Census Bureau, 2018 ACS 5-Year Estimates





**Figure I.9 – Language Proficiency Comparison**

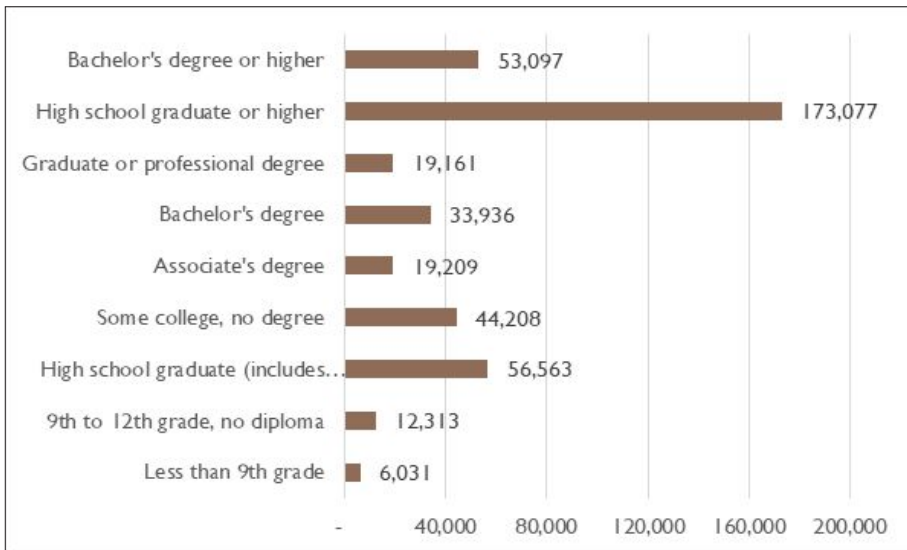


Source: U.S. Census Bureau, 2018 ACS 5-Year Estimates

Educational attainment figures prominently in a community's vitality and ability to meet workforce needs. Approximately 91.4% of the MPA population 25 and over has a high school degree or higher, and 31.2% has a bachelor's degree or higher. Comparatively, the U.S., Illinois, and Iowa have 87.7%, 88.9%, and 93.3% high school degree or higher. See Figures 1.10 and 1.11 for more details on educational attainment.

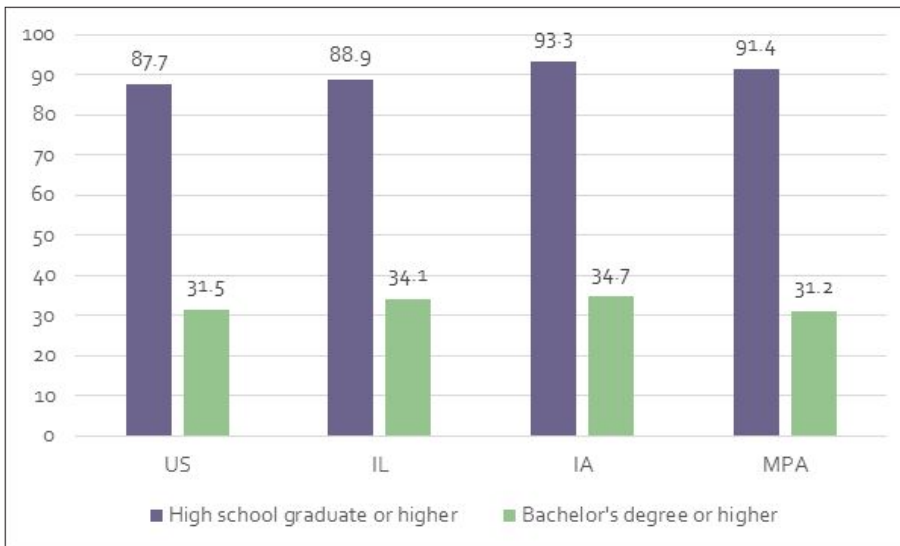


**Figure 1.10 – Educational Attainment for the MPA Population age 25 and over**



Source: U.S. Census Bureau, 2018 ACS 5-Year Estimates

**Figure 1.11 – Educational Attainment Comparison**



Source: U.S. Census Bureau, 2018 ACS 5-Year Estimates



As part of the area profile, a peer comparison was done to examine the Quad Cities to urbanized areas similarly sized and greater than 200,000 in population. According to the U.S. Census Bureau's 2018 ACS 5-year estimates, these areas ranged in population size from 201,208 (Huntsville) to 499,694 (Des Moines). Locations for peer comparison included these urbanized areas: Corpus Christi, Texas; Des Moines, Iowa; Fayetteville-Springdale-Rogers bordering Arkansas and Missouri; Fort Wayne, Indiana; Huntington-Ashland bordering West Virginia, Kentucky and Ohio; Huntsville, Alabama; and Peoria and Rockford, Illinois. Table 1.1 illustrates these comparisons. This benchmarking helps in understanding our local conditions in contrast to other areas of our size.

The Davenport, IA-IL Urbanized area has the shortest mean travel time to work at 18.6 minutes. The area has the second highest percentage of people who drive alone at 85.5%, exceeded only by Huntsville with 88.4%. The Davenport urbanized area has the fifth highest percentage of workers with no vehicle available at 2.4%, ranking first is Peoria at 3.5%. As a more car-dependent community and short travel times, there would appear to be less incentive to try alternatives such as public transit, biking, or walking from a demographic perspective. To make the shift to encourage these alternatives, land use decisions would need to support higher density housing areas and concentrations of employment as well as providing the infrastructure or transit routes to allow these choices.



Table 1.1 – Peer Comparison of Urbanized Areas

Peer Communities: Urbanized Areas	Urbanized Area Pop	Median Age	% 65 yrs +	Household Median Income	% Minority Race	% Latino	ESL	Mean travel to work (min.)
Corpus Christi, TX	338,875	35.2	14%	\$56,090	10%	62%	46%	19.3
Davenport, IA -IL	283,320	38.3	16%	\$53,581	18%	10%	11%	18.6
Des Moines, IA	499,694	35.1	12%	\$67,391	16%	8%	13%	19.3
Fayetteville-Springdale-Rogers, AR-MO	338,444	32.0	11%	\$54,516	20%	20%	17%	19.1
Fort Wayne, IN	326,473	35.3	14%	\$51,485	23%	8%	11%	21.1
Huntington, WV-KY-OH	201,208	39.5	18%	\$42,648	8%	2%	3%	20.6
Huntsville, AL	302,086	38.0	14%	\$64,391	34%	5%	9%	20.3
Peoria, IL	263,877	38.0	17%	\$55,247	21%	4%	8%	19.1
Rockford, IL	288,165	38.7	16%	\$52,145	22%	15%	16%	22.7
Peer Communities: Urbanized Areas	% drove alone	Total Housing Units	Total Vehicles / Housing Units	Average HH Size (Pop / Unit)	% Owner-Occupied Units	Total Vehicles / Homeowner Units	Average HH Size for Homeowners	Total Vehicles / Rental Household Units
Corpus Christi, TX	84%	121,919	1.8	2.8	0.6	2.1	2.8	1.4
Davenport, IA -IL	86%	114,112	1.7	2.5	0.7	2.0	2.5	1.2
Des Moines, IA	84%	195,578	1.8	2.6	0.7	2.1	2.6	1.4
Fayetteville-Springdale-Rogers, AR-MO	82%	126,450	1.8	2.7	0.5	2.1	2.8	1.5
Fort Wayne, IN	85%	128,172	1.8	2.5	0.7	2.0	2.6	1.2
Huntington-Ashland, WV-KY-OH	85%	80,978	1.6	2.5	0.6	1.9	2.5	1.1
Huntsville, AL	88%	122,542	1.9	2.5	0.6	2.2	2.5	1.3
Peoria, IL	85%	107,711	1.7	2.4	0.7	1.9	2.5	1.1
Rockford, IL	82%	113,469	1.7	2.5	0.6	2.0	2.6	1.2
Peer Communities: Urbanized Areas	Average HH Size for Renters	% Workers with no Vehicles Available	% Vacant Housing Units	% all People in Poverty	% Unemployed	Highest Industry Employment	Principal city (by Pop)	Principal City Density / sq mi
Corpus Christi, TX	2.6	19.3	11%	16%	3%	Health care and social assistance	Corpus Christi	2,022



Davenport, IA -IL	2.2	18.6	9%	14%	4%	Manufacturing	Davenport	1,625
Des Moines, IA	2.3	19.3	7%	11%	3%	Health care and social assistance	Des Moines	2,670
Fayetteville-Springdale-Rogers, AR-MO	2.4	19.1	6%	14%	2%	Retail trade	Fayetteville	1,555
Fort Wayne, IN	2.3	21.1	9%	15%	4%	Manufacturing	Fort Wayne	2,387
Huntington-Ashland, WV-KY-OH	2.3	20.6	13%	20%	4%	Health care and social assistance	Huntington	2,924
Huntsville, AL	2.2	20.3	9%	14%	4%	Professional, scientific, and technical services	Huntsville	926
Peoria, IL	2.2	19.1	10%	15%	4%	Health care and social assistance	Peoria	2,385
Rockford, IL	2.4	22.7	9%	16%	6%	Manufacturing	Rockford	2,421

Source: U.S. Census, Urbanized Area (2010 Land Boundaries), 2018 ACS 5-Year Estimates Data.

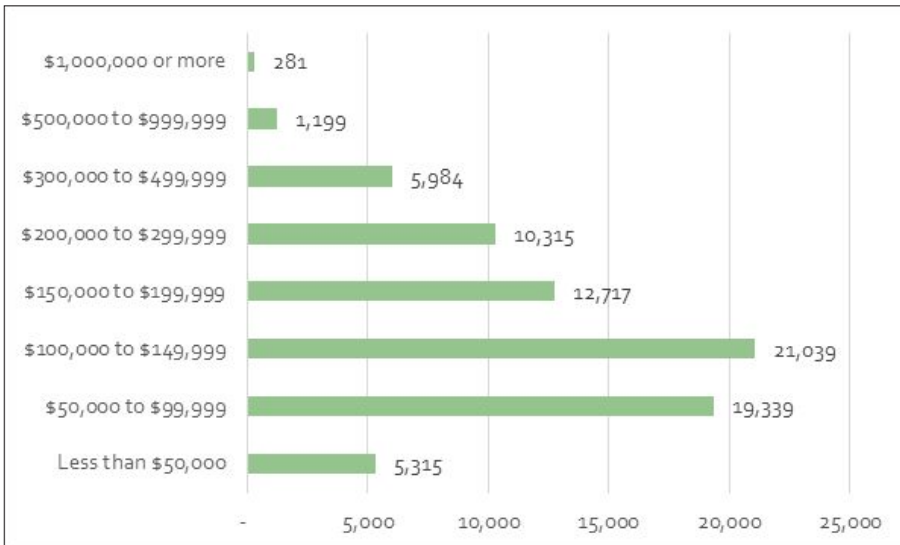
### Where We Live

Approximately 77.2% of the region (three-county area) lives within the MPA. There are 21 cities within the MPA boundary that range in size from 90 to 102,080 in population.

Within the MPA, the median home value is \$124,960 and was built in 1961, based on median age. Comparatively, the MPA has a lower housing value than the U.S. and Illinois but is slightly higher than Iowa. The MPA has a 68.9% owner occupancy (31.1% renter) and a 6.9% vacancy rate. See Figures 1.12 and 1.13 for more details.



**Figure 1.12 – MPA Housing Unit Value Distribution**



Source: U.S. Census Bureau, 2018 ACS 5-Year Estimates

**Figure 1.13 – Median Housing Unit Value Comparison**



Source: U.S. Census Bureau, 2018 ACS 5-Year Estimates





## Where We Work

According to the Census Bureau’s 2018 ACS 5-Year Estimates the total employment in the MPA for civilians 16 and over in 2018 was 135,937. Employers work in a variety of industries with the top industries being manufacturing (17.1%), educational services, and health care and social assistance (22.6%), and retail trade (12.7%). Table 1.2 shows the top employers in the MPA region that coincide with the top employed industries.

**Table 1.2 – Top Employers in the MPA (2020)**

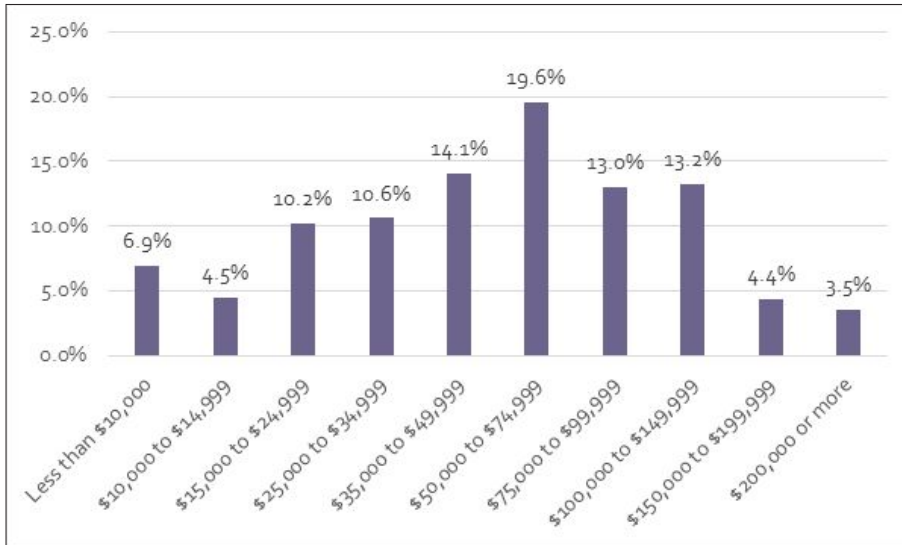
Employer	Total Employed
Deere & Company (All metro locations)	7240
Rock Island Arsenal	6163
Trinity-Unity Point (All metro locations)	4748
Genesis Medical Center (All metro locations)	2760
Tyson Fresh Meats	2400
Arconic	2000
Tri City Engrng & Integration	1200
Xpac (Export Packaging, Inc.)	1000
Rhythm City Casino Resort	1000
Cobham Mission Equipment	800

Source: *Infogroup ReferenceUSA Gov, 2020 and individual employers.*

The median household income in the MPA is \$ 53,581. This is slightly lower than the U.S., Illinois, and Iowa. The average household income is \$ 70,636. The per capita income is \$ 29,395. Figures 1.14 and 1.15 show household income distribution for the MPA in more detail. The percent of all households under the poverty threshold is 14.4%. Comparatively, the MPA is just slightly higher than the U.S., Illinois, and Iowa. See Figure 1.16 for more details. Map 1.4 displays the median household income within the MPA. Concentrations of lower income households are along the Mississippi River and near the downtowns of the various communities. Typically, these are areas where there are moderately priced and older housing. Chapter 2 discusses potential effects that proposed facilities may have by household income. Appendix C provides maps on social equity of proposed roads, transit routes, trails, and sidewalks in comparison with the variable.

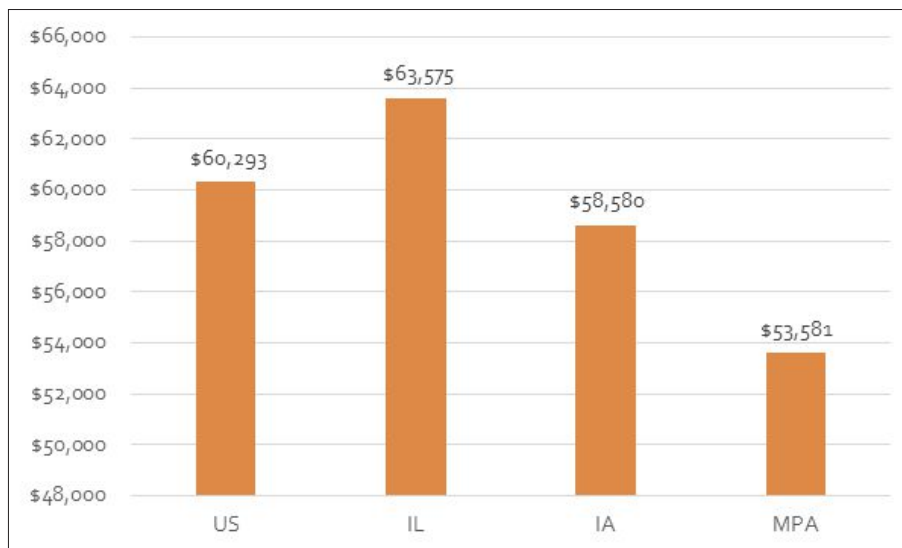


Figure 1.14 – MPA Household Income Distribution



Source: U.S. Census Bureau, 2018 ACS 5-Year Estimates

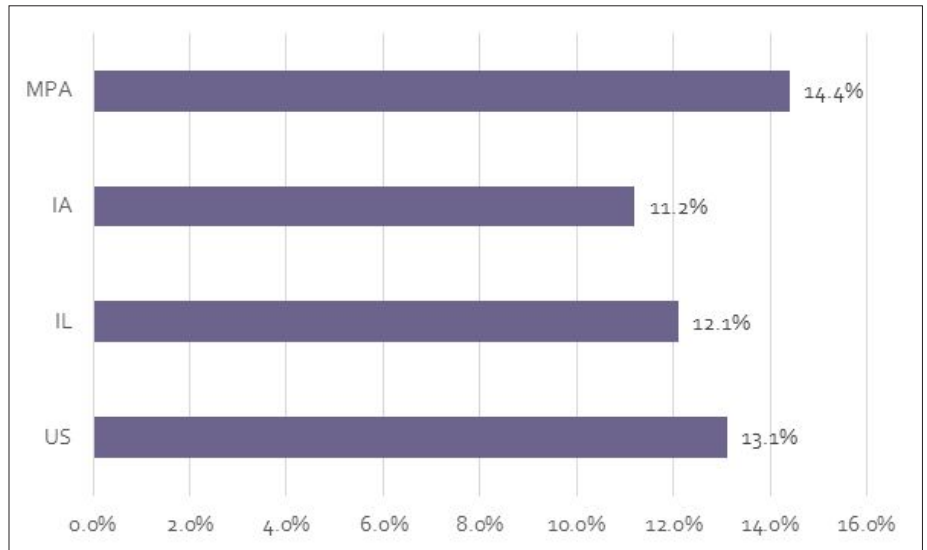
Figure 1.15 – Median Household Income Comparison



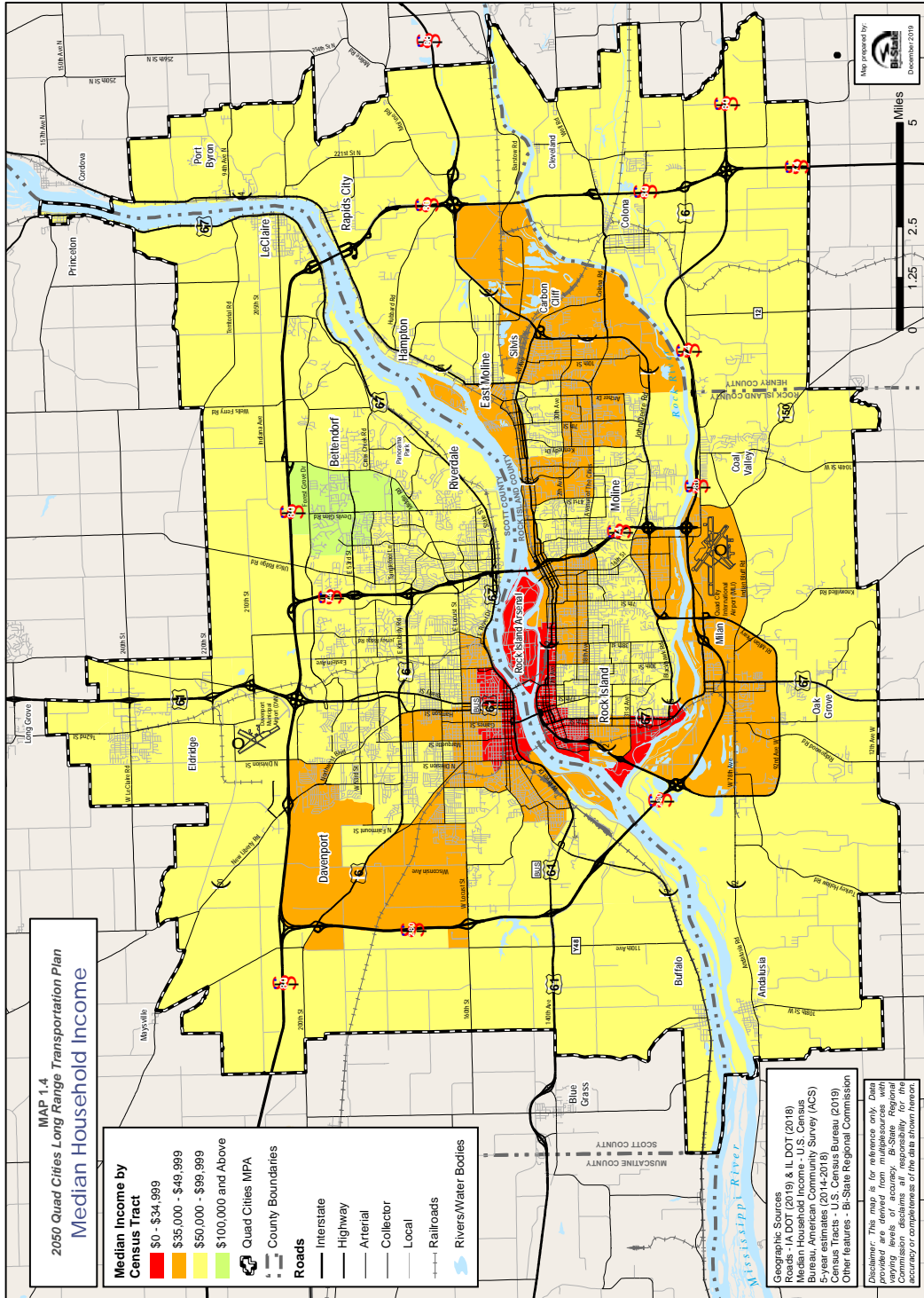
Source: U.S. Census Bureau, 2018 ACS 5-Year Estimates



Figure 1.16 – Percent of all Households below Poverty Threshold



Source: U.S. Census Bureau, 2018 ACS 5-Year Estimates

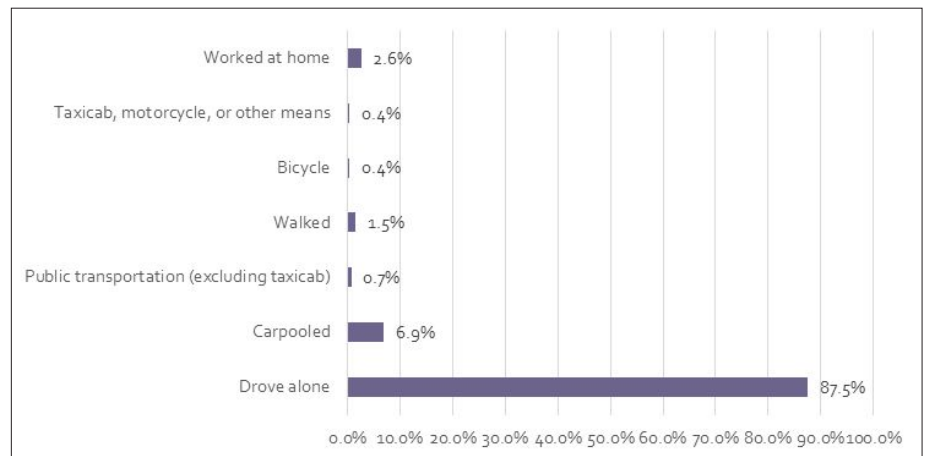




## How We Get to Work

The majority of workers within the MPA drive alone to work (87.5%), followed by carpooling as the most common other means of transportation (6.9%). See Figure 1.17 for more details on transportation to work. Commute times in the MPA average 18.5 minutes. Figure 1.18 shows travel times in more detail. The Census data is supported by the results of the public input, which showed more 75% of the respondents drive alone to work. (See Appendix A for survey details.)

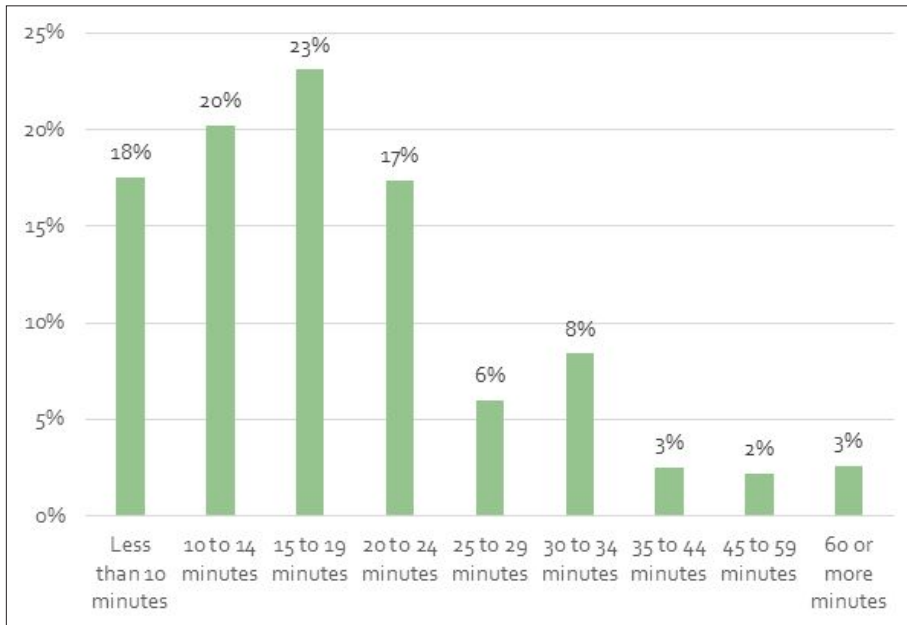
**Figure 1.17 – Means of transportation to work in the MPA**



Source: U.S. Census Bureau, 2018 ACS 5-Year Estimates



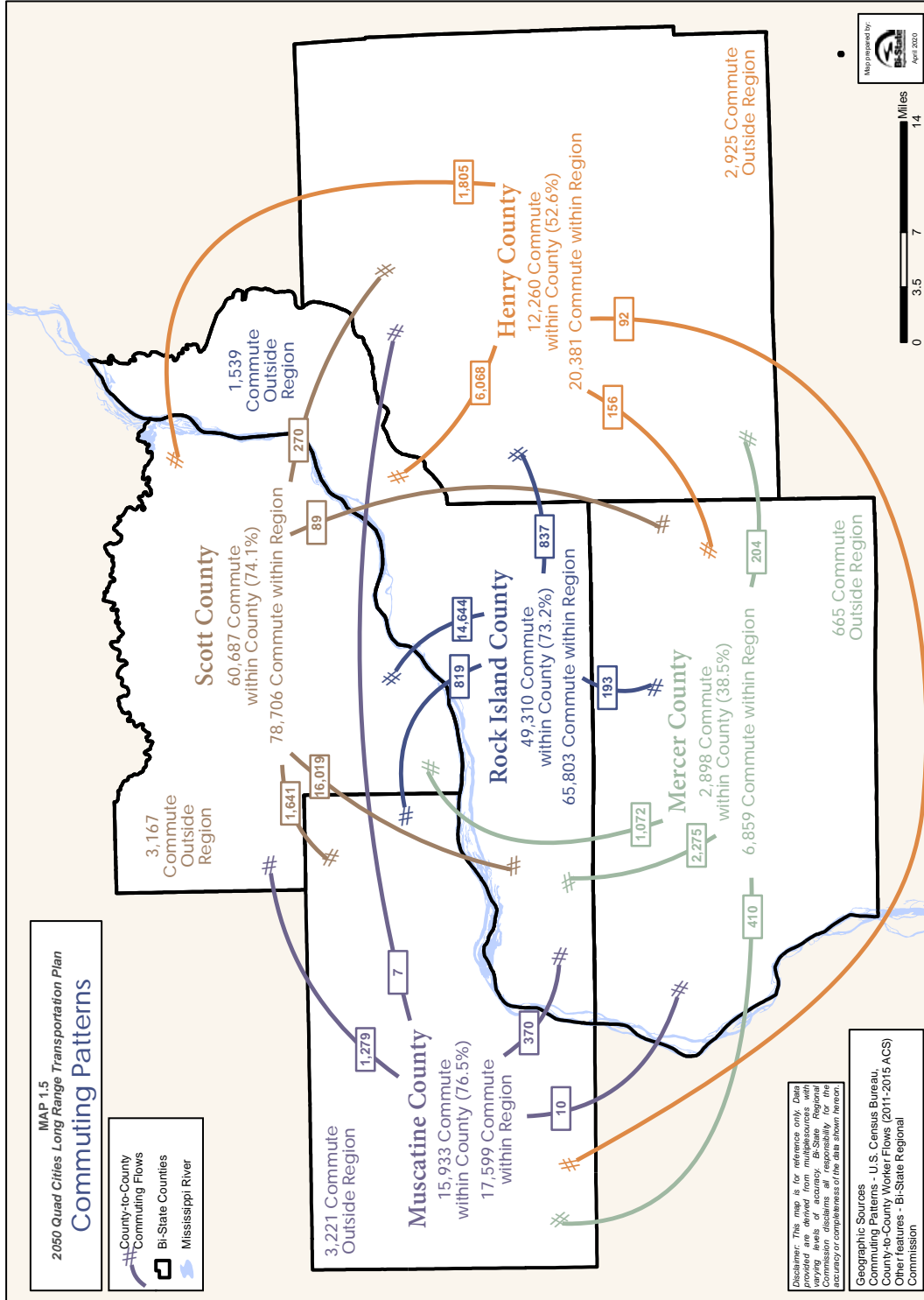
Figure 1.18 – Travel Time to Work in the MPA



Source: U.S. Census Bureau, 2018 ACS 5-Year Estimates

Map 1.5 shows county-to-county commuting flows around the region. There is a strong attraction for workers to Rock Island County and slightly less to Scott County. This reinforces the strong desire in our MPA for river crossing travel for work. The Census data was reinforced by the results of the *Quad Cities Household Travel Survey* (2014). A total of 1,043 households (58%) reported regularly traveling across the Mississippi River at least once per week. Twenty-eight percent (507) of households reported at least one bridge crossing trip on their reported travel day.







## How We Get Around

The *Quad Cities Household Travel Survey* (HHTS) was completed in 2014. A study of this type had not been conducted for the metro area since the 1960s. It provided a clear picture and baseline for the area's current travel behavior. The survey delivered a snapshot in time of daily travel and characteristics of nearly 1,800 households. The results indicated the average number of person trips per household was 7.74, and there were an average of 5.58 vehicle trips per household. Interestingly, bridge-crossing households made 11.24 trips per household. This was greater than the overall trip rates. Automobile travel (93%) dominates the type of mode used for all trips purposes. Less than one percent of the trips use transit buses (0.88%) or bikes (.09%), based on the local travel survey data as compared to the Census data noted above. Transit trips in the survey were for shopping and errands while biking trips were mostly for getting to school, shopping, or other types of trips from home. Walking represented 2.8% of the trips by mode, and walking trips were for social/recreation purposes, school, and shopping. These statistics and those described by Census data are important for discussions on travel choice, reducing environmental effects, and providing an interconnected transportation system. They can also be used to benchmark the metropolitan area and set transportation alternatives goals in the future, such as increasing transit ridership by a percentage by a given time. The HHTS was used in the travel demand model calibration process to benchmark results predicted by the model.

## Where We Are Going in 2050

While the future is often hard to predict, there are typically three scenarios used to explore reasonable courses of change – no change or status quo, growth or decline. Historical trends from the past have shown growth in the MPA area over time with varying rates of change between decades. It is projected that the MPA population will change from 306,546 (2015) to between 303,300 and 372,800 by 2050. Similarly, the employment is projected to change from 191,800 (2015) to between 181,400 and 238,100. Projections were developed to frame the local community land development projections used in the travel demand model. The results of the land use population and employment changes in the final modeling scenario is discussed in Chapter 4.



Population projections were based on six hypothetical scenarios shown in Figure 1.19. In scenario 5, the greatest population growth is expressed with an additional 66,150 people in the MPA by 2050. In scenarios 2-4, a more modest growth in population is shown. In scenarios 1 and 6, slow growth and declining growth are shown. Scenario 6 is the only non-linear model, a regression analysis of three-county Census data from 1970-2015 was used to produce a “Line of Best Fit” for 2015-2050, which yielded a -0.03% rate of change. In all Decennial Census scenarios, the annual growth was applied to the 2015 population from the American Community Survey (2018).

Similarly, employment projections were created based on eight hypothetical scenarios shown in Figure 1.20. These were all linear models based on growth rates for various years from various sources on local employment figures. The last three scenarios were “hybrid models” that looked at the last plan drafted in 2015 and found a 62.6% ratio to population count and job count. This 62.6% ratio was then applied to the population projection scenarios 1, 5, and 6, as they each respectively represented a slow historical growth, fast historical growth, and decline via a regression model.

The parcel-based projections found in Chapter 4 were derived from local community officials/staff input on future development of housing areas and business development in their respective communities or in the unincorporated areas. This input included the consideration of each community’s comprehensive land use plan and relevant developments underway. Full details are part of a separate technical report documenting the travel demand model development.



Figure 1.19 – Population Projections 2015-2050

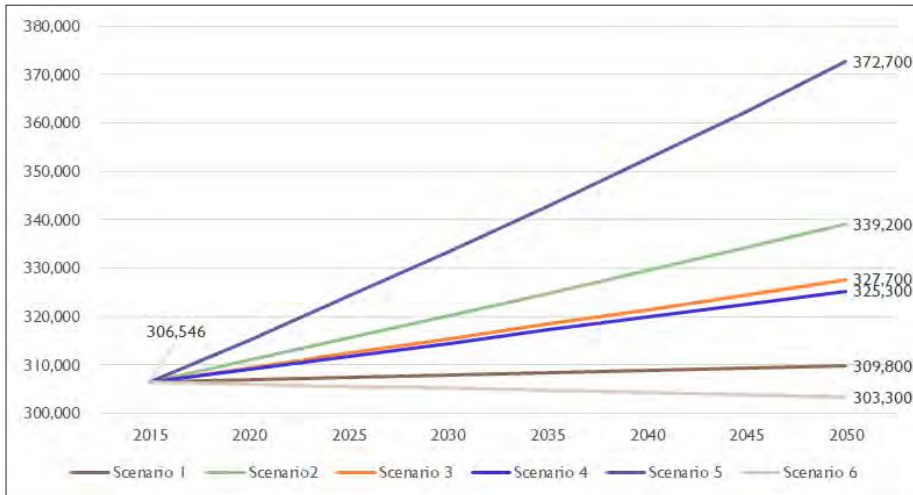


Figure legend described in the sidebar.

Source: U.S. Census Bureau; decennial censuses 1970-2015, Bi-State Regional Commission 2020

Scenario planning examines future potentials that consider low or slow growth if there is loss or status quo within the metropolitan area versus if growth is more rapid and more urban activity. Figure 1.19 illustrates potential population scenarios based on different annual rates of change for population.

Population Forecasts' Scenario Analysis

Population -

- Scenario 1: Linear growth model based for 3-county area 1970-2010 Decennial Census (0.03% annual change).
- Scenario 2: Linear growth model based for 3-county area 2000-2010 Decennial Census (0.29% annual change).
- Scenario 3: Linear growth based for 3-county area 1990 -2010 Decennial Census (0.19% annual change).
- Scenario 4: Linear growth based for 3-county growth rate 2000-2015 Woods & Poole Economics, Inc. (0.17% annual change).
- Scenario 5: Linear model based on growth rate for the fastest growing county (Scott Co.) from 1990-2010 (0.56% annual change).
- Scenario 6: Regression analysis for three-county area 1970-2010 Decennial Census (-0.03% annual change).

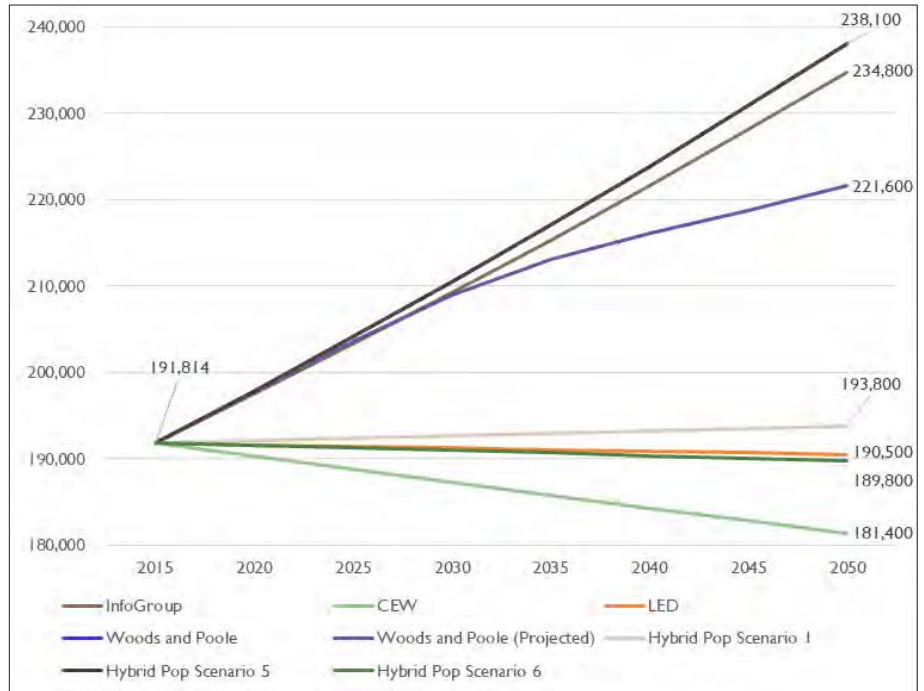


Figure 1.20 illustrates potential employment scenarios based on different annual rates of change in employees.

### Employment Forecasts' Scenario Analysis

- Scenario 1: Based on 0.62% growth rate from 2000-2015 Woods & Poole, Inc.
- Scenario 2: Based on -0.16% growth rate from 2000-2015 Bureau of Labor Statistics.
- Scenario 3: Based on -0.02% growth rate from 2000-2015 Local Employment Dynamics (Census Bureau).
- Scenario 4: Based on 0.58% growth rate from 2000-2015 Infogroup data.
- Scenario 5: Based on 0.42% growth rate from 2015-2050 Woods & Poole, Inc..
- Scenarios 6 – 8: "Hybrid Models" using 62.6% ratio of population count to job count, then applied to the population projection scenarios 1, 5, and 6, as they each respectively represented a slow growth, fast growth, and decline regression model.

Figure 1.20 – Employment Projections 2015-2050 **SIDEBAR**



Source: InfoGroup 2020; local sources; and Woods & Poole Economics, Inc., Bi-State Regional Commission 2020



## The Activities

Urban activity is tied to locations where people work, live, play, and conduct other activities. Land use can be described by type, intensity, and location. Urban activity and land use are key factors used to determine travel demand based on where trips start and end.

Map 1.6 shows the existing land uses based on actual parcel records for a base year of 2015. Map 1.7 identifies the future land uses in the Quad Cities. It was compiled from community and county comprehensive land use plans, and discussions with local officials and staff on development projects/plans. Some locations represent areas with greater concentrations of current and future activity, such as homes, businesses, institutions, or recreation. Other areas represent less activity, such as agriculture, open space, or natural conservation areas.

In reviewing the development goals at the beginning of this chapter, future land use in Map 1.7 should coincide with these overarching metropolitan goals. Each community's comprehensive plan and planning process will guide development within their jurisdiction, and would complement the regional vision and development goals set out in this plan.

For clarity, future land uses were categorized to align with the Iowa Standardized Model Structure (ISMS). Table 1.3 shows the grouped land use types and the urban activity description used to categorize the metropolitan area land uses. Following this table, there are highlights as part of the MPA profile on types of culture and entertainment, centers for learning, and economic and service centers with an overview of accessibility to populations most in need of proximity to employers and services.

Village of East Davenport  
Streetscape and Urban Activity



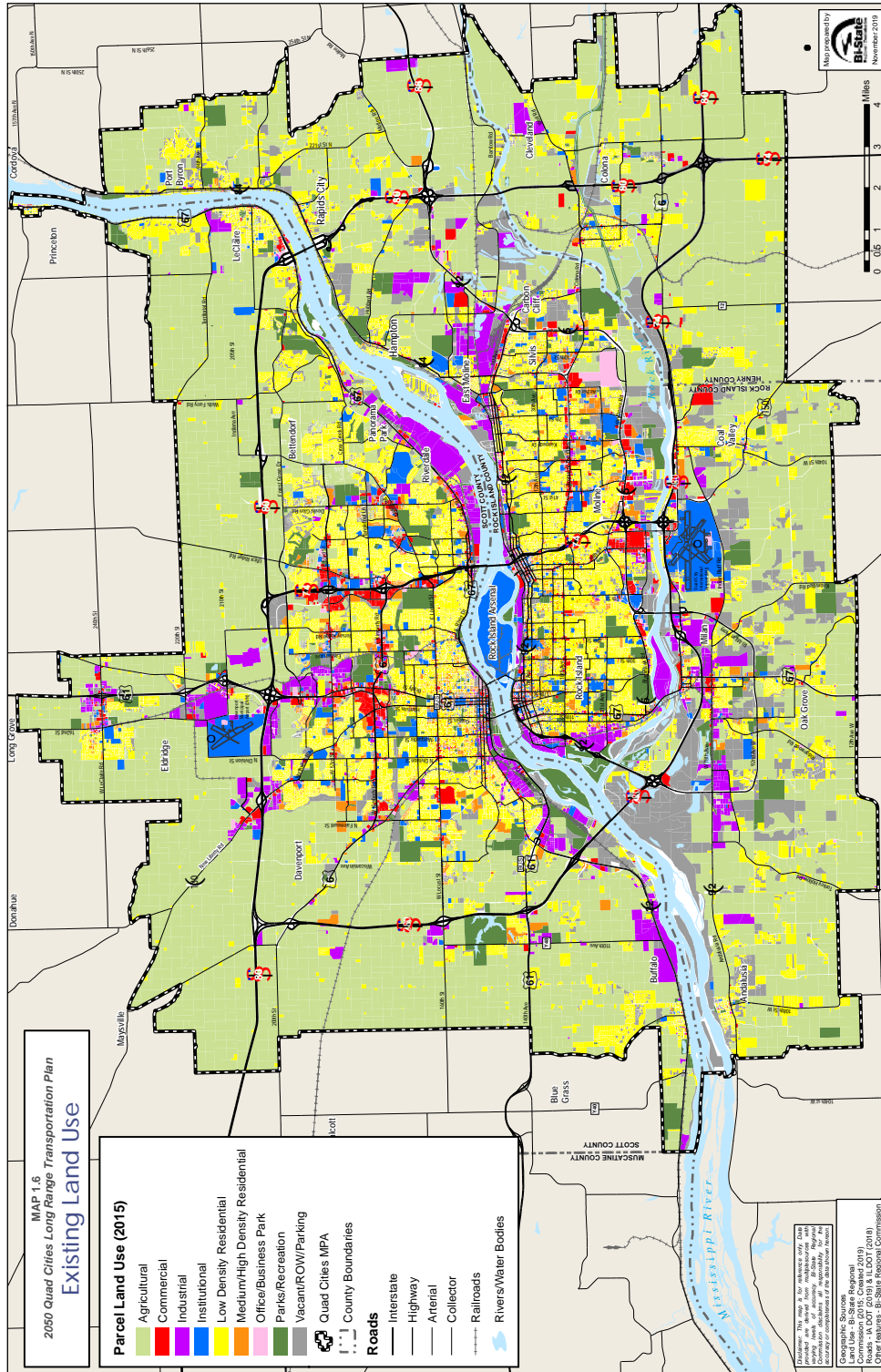
Source: Bi-State Regional Commission



**Table 1.3 – Urban Activity Description by Land Uses Type**

Land Use Type	Urban Activity Description
Agricultural/Rural Residential	Intensive Agriculture, Agriculture
Commercial	Hotel/Motel, Tourism Attraction, Convention Center, Casino, Street Front Commercial, Neighborhood Shopping Center, Community Shopping Center/ Big Box, Regional Shopping Center, Auto Dealership, Service Station, Fast Food, Sit-Down Restaurant, Other Commercial
Industrial	Manufacturing, Industrial Park/Light Industry, Warehousing, Freight Terminal, Public Storage, Extractive Industry, Junkyard/Dump/Landfill, Communications/ Utility
Institutional	Commercial Airport, Municipal Airport, Passenger Terminal, Government Office, Library, Post Office/Shipping Office, Fire/Police Station, Religious Facility, Other Public Service, Hospital, Other Health Care, Public Assembly, Military, Prisons/Jails, Day Care/Preschool, Elementary School, Junior High/Middle Schools, Senior High, Post-Secondary, Major University, Other School
Low-Density Residential	Residential, Single-Family Detached
Medium/High-Density Residential	Mobile Home Park, Single Family Attached, Apartment Building, Dormitory, Student Housing, Retirement Community, Skilled Nursing Facility/Assisted Living, Group Quarters/Residence Hotel, Fraternity/Sorority
Mixed Use	Combination of Low-Density Residential, Medium/High-Density Residential and Commercial
Office/Business Park	General Office, High-Rise Office
Parks/Recreation/Conservation/ Preservation	Stadium/Arena, Golf Course, Active Park, Passive, Park, Recreational Use, Cemetery,
Low-Intensity	Parking, Right-of-Way, Vacant

Source: Iowa Standardized Model Structure Land Use Urban Activity Descriptions (2020)







## Culture/Entertainment

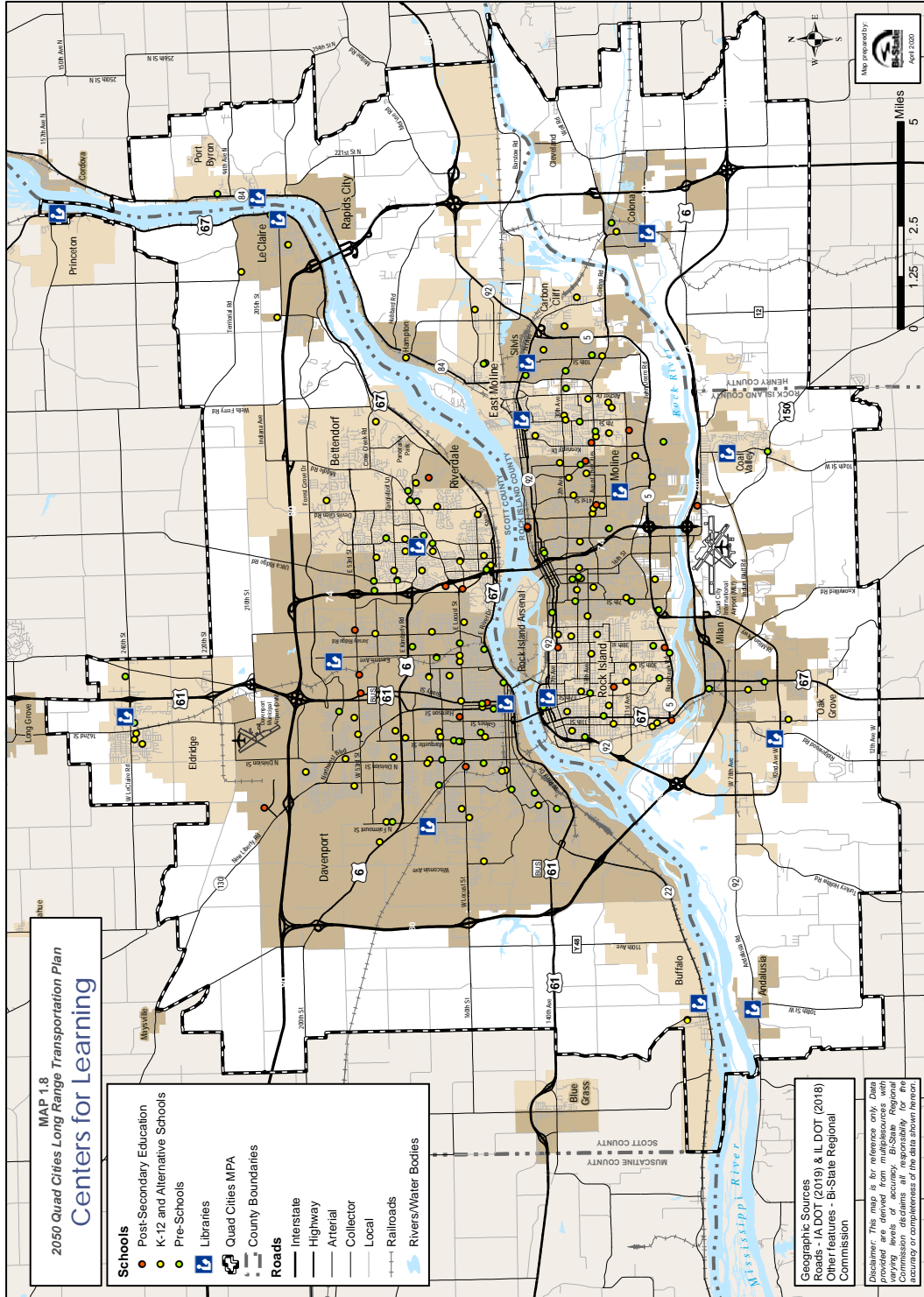
The Quad Cities offers a variety of cultural, historical, and entertainment choices for residents and visitors. Regional attractions include a 12,000-seat civic center; regional conference centers; three casinos; art, science and children's museums; theaters; botanical centers/conservatories; and galleries. With its location on the Mississippi River, river boat cruises, water taxis, and marinas allow residents and visitors to experience the river in a variety of ways. There are several sports venues from minor league baseball and hockey to a TPC golf course, which hosts an annual national tournament. Local pools, golf courses, fitness facilities, and an indoor soccer and ice rink provide diverse recreational opportunities. The Quad Cities is home to the Niabi Zoo, one of the top area tourist destinations. The Quad Cities is also a crossroad to two transcontinental trails – American Discovery Trail (ADT) and Mississippi River Trail (MRT).

## Centers for Learning

There are many centers for learning in the Quad Cities, including public and private K-12 schools, colleges, universities, technical schools and training centers, libraries, and other facilities. Map 1.8 illustrates these locations. For post-secondary education, there are two community colleges, a technical/trade college, a four-year college, two universities, a chiropractic college, and a graduate center. Typically, these centers contribute to travel demand. Under the COVID-19 pandemic, travel has been curtailed to these centers, and activity has been transferred to online learning in many cases. While not permanent, it has been recognized that methods of learning and accessing information is moving to more digital transfer of knowledge, and not always necessary in person.

### *Centers for Learning Definition:*

*Places where education and learning occur. Examples include: elementary schools, universities, technical schools, and libraries.*





## Economic and Service Centers

Major employers were noted previously in the MPA Profile. These large employers concentrate travel to key locations in the community. However, employment is dispersed throughout the MPA. Maps 1.9 and 1.10 show major employers and economic service centers in the MPA in relation to opportunities for job access and services access. Service centers in Map 1.10 are noted for medical, social, and regional service centers. Medical service centers include such facilities as hospitals, medical or dental offices or clinics, nursing care, and other health care facilities. Social service centers include child day-care, individual and family services, job training sites, residential care, and social service agencies. Regional service centers are identified as banks or financial institutions, grocery and food markets, drug stores, and libraries. The darkest areas on the employer map show the greatest concentration of residents who may need transportation the most to get to a job, such as those with no vehicle, low income, and age by workforce. Those areas also show the greatest concentration of residents who may need transportation to get to social services assistance, such as those with no vehicle, disabilities, and over 65 years old. These types of maps help determine if our transportation system is meeting the needs of these populations. Appendix C takes this further by overlaying the modal transportation networks with demographic information. Chapter 2 provides a summary of this analysis.

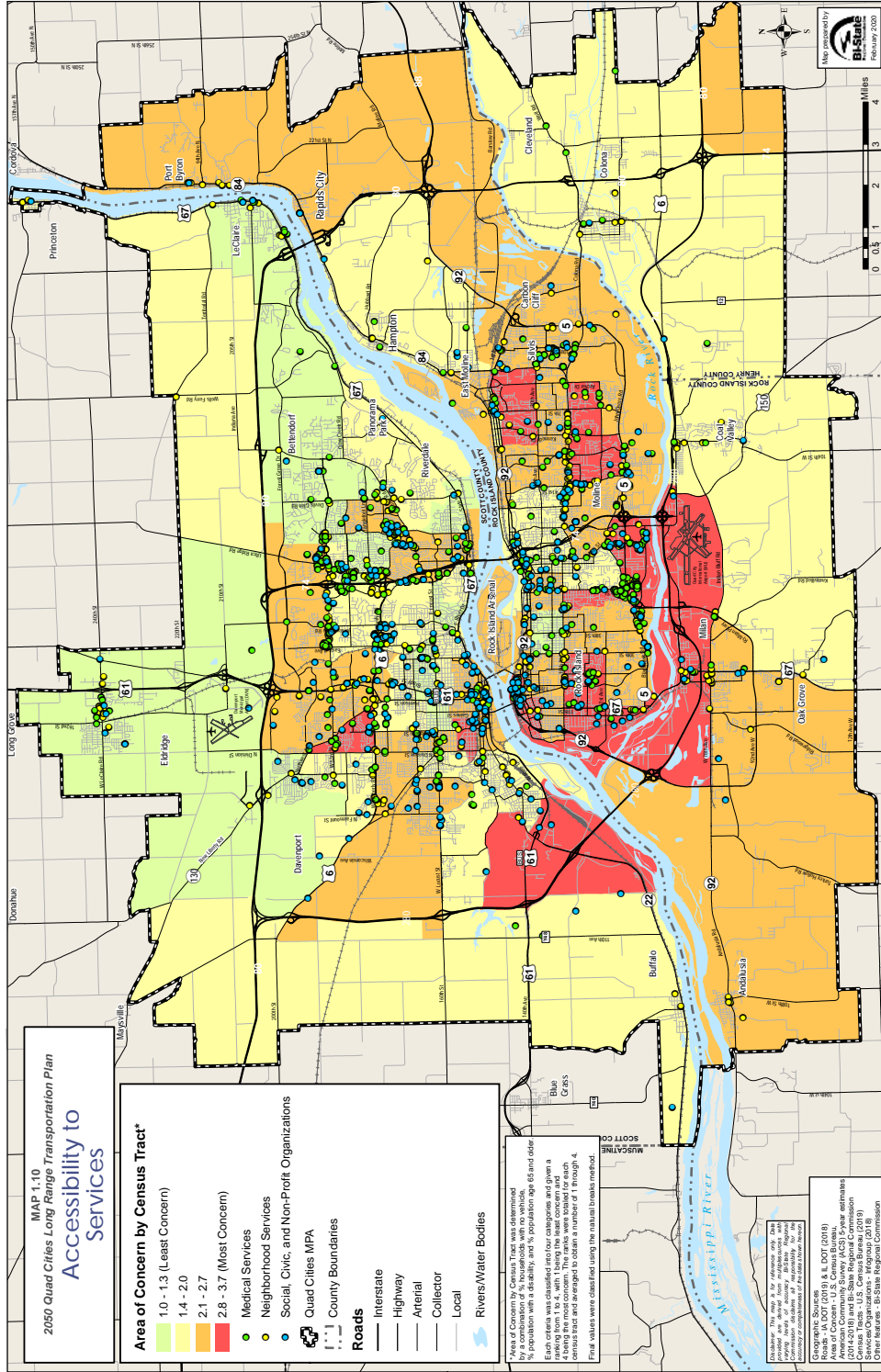
### *Service Centers Definitions:*

*Medical Providers and Services – Facilities serving patients or clients related to healthcare needs, such as hospitals, medical or dental offices/clinics, nursing care, and other health care facilities*

*Social Service Centers – Facilities serving clients to help with basic needs or support, such as child daycare, individual and family services, job training sites, residential care, and other social services agencies*

*Regional Service Centers – Facilities providing essential services to live and work, such as banks or financial institutions, groceries or food markets, drug stores, and libraries*







### *Land, Water, and Air Resources*

Another component in the Quad Cities Area profile is the environment. It will be important to examine the effects of the transportation system on the physical and social environment. Projects receiving federal funding are required to comply with the National Environmental Policy Act (NEPA) and follow a set process for assessing environmental effects. There are a number of physical and social aspects to consider in the environment when planning and constructing transportation projects. These impact considerations are detailed in Chapter 2. Project-specific discussions of preliminary environmental effects are noted in Chapter 2 also.

Land, water, and air resources play an important role in how the area was settled and where environmental problems may arise. The Mississippi River and the neighboring agricultural land are the MPA's greatest natural resources. Geological uplift and erosion created the river valley through four major glacial events. Present day lowlands are remnants of ancient riverways, now occupied by smaller rivers and streams. These lowlands are very level and poorly drained. Bluffs flank the river corridor from 100-200 feet (30-60 meters) in height. The bluffs are capped by unconsolidated sand and gravel, forming alluvial terraces that rest on sedimentary bedrock, including sandstone, limestone shale, and dolomite. Many underground aquifers produce high-quality groundwater yields. The area was once heavily mined for coal and continues to be quarried for sand and limestone. Gravel represents the second largest commodity by tonnage (19%) projected through 2040 [2007 Freight Analysis Framework (FAF) data from the *Bi-State Region Freight Plan (2015)*].

Natural physical constraints of the river, such as water level, currents, ice floes, and sedimentation, may dictate transportation project design. There are areas of the metropolitan area that are subject to flooding, while other areas are protected by levees.

The Quad Cities Area contains floodplains and a variety of high quality wetlands. With the area bluffs, slope and soil erosion are a consideration. Soils also influence development or preservation issues for prime farmland. Map 2.1 in Chapter 2 shows water resources in the MPA.



Consideration of the built environment is important. Historically, the MPA was home to a variety of indigenous people; therefore, archeologically-significant sites may affect transportation developments and other land uses. The Rock Island Arsenal, located at the center of the Quad Cities, is host to two national cemeteries, a history museum, the former Fort Armstrong, and the Colonel Davenport home, an area historic site. As noted in the regional vision, emphasis on recognizing our culturally-rich history plays an important backdrop to how the area was developed and how it evolves in the future. The first bridge crossing the Mississippi River was constructed between Davenport and Rock Island near the current Government Bridge, which is the fourth structure in that vicinity.

The riverfront was host to many existing and former industries. Among the more mature developed areas of the Quad Cities, there remains existing industry that operates with older technology and/or coal-fired electric generation stations that produce air emissions. Combined with vehicle emissions, these pollutant contributors play a role in meeting air quality standards. Although the Quad Cities Area meets the current National Ambient Air Quality Standards (NAAQS), local officials have proactively sought ways to reduce emissions to maintain good air quality. Chapter 2 highlights these efforts toward better air quality.

## Water Supply and Habitat

The river setting provides critical resources for both humans and wildlife. The Mississippi River is a major water supply for many communities in the Quad Cities. It is also a major transportation artery for conveying goods and services. From a wildlife perspective, the Mississippi River is recognized as a "Nationally Significant Ecological Resource" by Congress. Area wetlands offer fish and wildlife habitats. The area is part of the Mississippi Flyway for migratory birds. A significant population of eagles can be found wintering in the Quad Cities Area.

The river is also home to a tremendous variety of aquatic organisms. Extensive sport and commercial fishing activities occur in the Quad Cities Area. The river contains many species of freshwater mussels, including federally listed endangered species. Other federally list-

2019 Flooding at U.S. 67 River Drive, Davenport, Iowa



Source: City of Davenport, May 2019



Bold Eagle in the Quad Cities



Source: Bi-State Regional Commission 2015

ed endangered species in the Quad Cities Area include plants, fish, mammals, insects, reptiles, and birds.

## Transportation System Threats and Opportunities

### *Present Day Issues*

Issues facing the Quad Cities MPA as outlined for the short-term through public input include repairing streets, replacing bridges, implementing bike lanes, improving transit usage, becoming more pedestrian friendly, and establishing passenger rail service from Chicago to the Quad Cities.

Residents indicated that the three biggest issues for transportation in the Quad Cities are mobility/access, operations, and maintenance. The top three goal priorities included mobility/access, safety, and system preservation.

Bi-State Regional Commission as the Metropolitan Planning Organization (MPO) has worked with local jurisdictions to enhance the Quad Cities transportation system. The MPA's first priority has been to complete the reconstruction of the I-74 Mississippi River Corridor from 67<sup>th</sup> Street/Veterans Memorial Parkway in Davenport to Avenue of the Cities, Moline. In FY2015, initial construction work began, and the mainline bridge structure is anticipated to be completed by 2021. The westbound span opened to traffic by the end of 2020. Initial engineering for the replacement of I-80 began in early 2021, and the project has funding programmed for construction by the Illinois Department of Transportation, with shared costs with Iowa Department of Transportation.

While the MPO has been working on the issues noted above, there continues to be new and additional transportation improvements needed. As part of the plan development, a variety of public input opportunities were launched to get feedback on community ideas on what is needed. Details can be found in Appendix A. Maps 1.2 and 1.3 also show the locations of the various public meetings in relation to outreach to minorities and other ethnic groups.



Feedback on “If you could design an alternative means to commute, what would be most important to you?” was one of the questions posed to participants of an online survey. The top three ideas included designing a commute to get to work quickly, does not require driving at all, and allows the commuter to travel without any advanced notice.

Additionally, participants in an online survey offered 440 responses on things they would like to see improved for transportation in the Quad Cities Area in the next ten years. For roads, improvements included expanded capacity on the interstates, specifically 3-lanes in each direction on I-80, better maintained roads, and improved corridors (IL92, IL84, Locust Street). For public transit, survey participants asked for 24-hour service, increased service frequencies, and a more universal metropolitan fare system.

The 445 responses related to the biggest transportation issues in the Quad Cities are visualized as a word cloud shown the Figure 1.24. Issues include congestion, desire for improved mobility and access for transit and non-motorized transportation, improved pavement conditions, better traffic flow, incomplete passenger rail service to Chicago, disparity of community investment in trails, traffic safety related to red light running, speeding and pedestrian and bike safety. Appendix A details public involvement results from a variety of input including the online survey.





Maintenance of the existing system by repairing or replacing aging facilities or equipment will be needed. Technology and system asset management will help time these improvements for optimal repair or replacement to reduce costs and lessen the effects of disruptions, such as extended work zone periods, pavement failure, or buses in a state of disrepair. There will be continued interest in having modal choices and people-friendly transportation. The Quad Cities will use its transportation system to inspire innovation, attract and retain business, and connect people to the area's rich cultural attractions and history. Building streets, where appropriate, that will accommodate cars, buses, bikes, and pedestrians and allow for the movement of goods and delivery of services is desired, based on the community input. Residents want greater access to the riverfront trails, improved traffic patterns in shopping and retail areas, and better traffic circulation along east-west corridors of the Quad Cities, such as U.S. 6/Kimberly Road, 53<sup>rd</sup> Street, Avenue of the Cities, Illinois 92 Corridor, and completion of John Deere Road.

There is interest in a sustainable transportation system where economics, social equity, and the environment are considered in the planning process. Future transportation acknowledges that the Quad Cities is part of a greater region and global economy. Passenger transportation to larger metro areas through intercity transit, passenger rail, and air service remain important to connectivity. Supporting the inland river navigation system will be important to connect the Quad Cities to the world by transporting bulk goods like grain and raw materials for construction.

## Implementing The Vision

The *2050 Quad Cities Long Range Transportation Plan* is a federally-required document as part of the metropolitan planning process. A comprehensive, coordinated, and continuing planning process is followed. Figure 1.25 shows this comprehensive, coordinated, and continuing "3-C" process that cycles from vision to implementation.



Figure 1.22 – Federal Transportation Planning Process

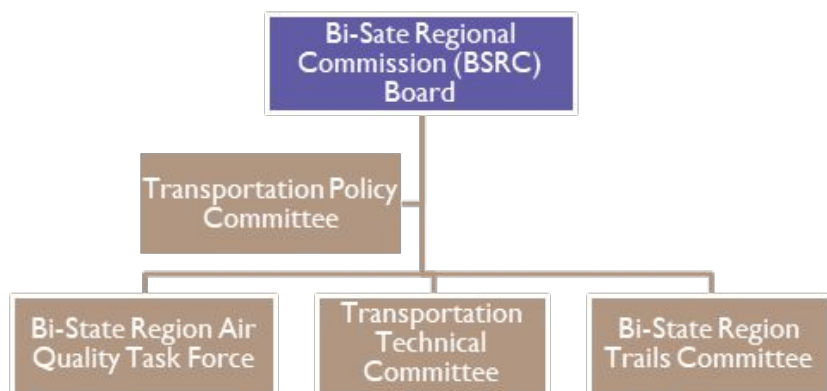


### *Roles and Responsibilities*

The Bi-State Regional Commission board and its delegated authorities will be responsible for maintaining and updating the *2050 Quad Cities Long Range Transportation Plan*. The plan will be reviewed and updated every five years, or if transportation conditions change substantially that will alter the goals and objectives of this plan. Figure 1.26 illustrates the organizational hierarchy of the Metropolitan Planning Organization (MPO).



Figure 1.23 – Bi-State Regional Commission MPO Organizational Hierarchy



The Quad Cities MPO Transportation Policy Committee, made up of elected officials, transit authority board members, and state and federal officials, receives recommendations from the Quad Cities MPO Transportation Technical Committee on plan development and progress. Input is also received from the Bi-State Regional Air Quality Task Force on clean air issues and the Bi-State Region Trails Committee on multi-purpose trails, among many other organizations and citizens. The Policy Committee is responsible for reviewing and recommending the plan to the Bi-State Regional Commission board.

Bi-State Regional Commission and its delegated authorities work to further the plan vision, goals, and objectives. As part of their work, coordination with a variety of public levels of government, private sector partners, and other organizations, as well as citizens, is undertaken to realize projects contained in this plan within the resources available to accomplish them.

### Plan Progress

Long range transportation plan progress is tracked using a number of methods. As projects move from long-range concepts to preliminary designs and/or to construction, many receive federal surface transportation funds. These projects are tracked in the Quad Cities Transportation Improvement Program (TIP), a four-year capital plan. The MPO also tracks the status of projects as they move through design stages to construction or implementation, known as the Technical Committee Project Progress Report.



Transportation progress reports are also suggested to be used to summarize activities or recognize successes. These reports are envisioned to be tied to the federal performance measures and can be placed with the existing documents, such as the Technical Committee Transportation Progress Report, Transportation Improvement Program, Transportation Planning Work Program, and Bi-State Regional Commission's *Commission in Review* newsletter, and referenced when the plan is updated. Procedures for collecting and reporting performance will also be needed, tracking measures of success.

## *Plan Revisions Process*

Substantial changes to the plan goals and objectives, in addition to new projects or shifting projects identified as needing additional study or unmet needs, will require an amendment to this document and appropriate public review outlined in the MPO Public Participation Plan. Projects identified in the unmet needs portion of this plan (Chapter 3) will not require additional travel modeling review, but new projects not introduced in this plan will require travel demand model analysis as part of the amendment process. Amendments will be required to be approved by the Bi-State Regional Commission based on the recommendation from the Quad Cities MPO Transportation Policy Committee.

Administrative modifications include revisions to factual technical data/documentation or shifting identified *2050 Long Range Transportation Plan* projects between long and short-term timeframes when funding is demonstrated to be available through the Transportation Improvement Programming and project selection process. Administrative modifications will not require actions by the Bi-State Regional Commission but will be presented for information to the Quad Cities MPO Transportation Policy Committee. Interim changes, amendments, and administrative revisions should be annotated in the electronic document with the date and reference to the revision.