Chapter 2: Planning Area Profile

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This Section discusses the people, economy and jobs, property and infrastructure that, together, comprise the region's assets and capabilities at risk from hazards, should they occur.



Figure 2.1: The Hazard Mitigation Planning Area

2.1 Planning Area Description

The planning area for this regional hazard mitigation plan is the five counties on the Missouri side of the Kansas City region – Cass, Clay, Jackson, Platte and Ray (Figure 2.1). Because of the integrated nature of this region, some trends, assets and capacities are best understood if initially described from the point of view of the entire region before describing the jurisdictions in the planning area in more detail, and some important contextual data is only available for the 9-county MARC region or for the entire 14-county Kansas City metropolitan area. The focus of this chapter remains on the five Missouri counties in the planning area.

2.2 Planning Area Geography and Environment

2.2.1 Geography



Figure 2.2: Kansas City at the Confluence of the Missouri and Kansas Rivers

Located at the confluence of the Missouri and Kansas rivers, Kansas City began in the mid-1800s as a trading post and jumping-off point for pioneers heading west on the Santa Fe, California and Oregon trails. The five Missouri counties that make up the Regional Hazard Mitigation Planning Area—Cass, Clay, Jackson, Platte and Ray— have a combined area of over 2,700 square miles. The region is located in the west-central and northwest parts of Missouri. It falls within the Central Dissected Till Plains and Osage Plains sections of the Central Lowlands, as defined by the U.S. Geological Survey and the Missouri Ecological Classification System.

Elevations in the region range from a low of 656 feet above sea level in Ray County to a high of 1,181 feet above sea level in Platte County, with most of the area falling between 700 and 1,000 foot elevations. Soils are mostly fertile and well drained, and are formed of loess, residuum and alluvium. The region's underlying bedrock consists of shale, limestone and sandstone.

Topography in the region is heavily influenced by the Missouri and Kansas rivers and their tributaries **(Figure 2.2)**. Much of the land is level to sloping, especially in floodplains and bottomlands, with uplands ranging from moderate slope to occasional steep bluffs and hills.

2.2.2 Waterways and Water Resources

Water, particularly surface water, is a great natural resource in the Kansas City area. The region is drained by three river basins: The Lower Missouri-Grand-Chariton River Basin, the Lower Missouri-Blackwater-Lamine River Basin and the Osage River Basin. The vast majority of the region's watersheds drain into the Missouri River, which is one of Missouri's (and the nation's) major rivers. In Cass County, however, watersheds drain into the Osage River Basin. See **Figure 2.3** Waterways and Topography in the Greater Kansas City Region on the following page.

Much of the region's water supply comes from the Missouri River, and in recent years degradation of the riverbed has become a concern. The U.S. Army Corps of Engineers conducted a multiyear study beginning in 2014 to assess riverbed degradation between Rulo, Neb., and St. Louis, Mo., focusing on the stretch of river in the Kansas City area where degradation is the most severe. The final Missouri Riverbed Degradation Feasibility Study Technical Report was completed in May 2017. The study determined the causes of degradation, explored how future degradation can be prevented, and recommended ways public infrastructure can be protected.

According to the U.S. Army Corps of Engineers, the average flow of the region's major rivers and streams range from a high of 35,070 million gallons per day in the Missouri River to a low of less than 13 million gallons per day in some of the region's small streams.

 Topography and Water Features

Some of the region's rivers, such as the Missouri River, are subject to minimum flow requirements in order to maintain water quality standards. The minimum flow requirement for the Missouri River is

Source: MARC

Figure 2.3: Waterways and Topography in the Greater Kansas City Region

2,620 million gallons per day. This requirement is maintained by the Corps' regulation of upstream reservoirs and their respective dams in Montana, North and South Dakota and Nebraska — Fort Peck, Garrison, Oahe, Big Bend, Fort Randall and Gavins Point. There are no designated wild and scenic rivers under the National Wild & Scenic Rivers System in the five-county area.

In the Kansas City area, significant quantities of ground water are found only in alluvial deposits along the Missouri River. These alluvial deposits can be more than 100 feet deep in the Missouri river valley (with an average depth of 80 to 90 feet). Saturated water- bearing materials range in depth from 30 to 60 feet, although they are generally found near a depth of 40 feet. Water wells in these alluvial deposits can yield from 1,500 to 2,000 gallons per minute, with an average yield between 500 and 1,000 gallons per minute.

In the region's tributary valleys, the availability of ground water is limited. The alluvial deposits in these areas range in thickness from 20 to 70 feet in the lower reaches to less than 10 feet in the upper reaches. In addition, the large amounts of shale in these tributary valleys results in mainly clay fill sediments in the alluvial aquifer. Because this material has a low water transmissibility, water well yields in these areas

can be as low as one to 10 gallons per minute. Tributaries in areas comprised mainly of sandstone, however, may produce wells with higher yields, since these areas have sediments with greater water transmissibility.

Aquifers in the region's uplands are found in materials of glacial origin or from weathered materials above bedrock. Neither of these areas produces substantial yields of ground water. Although some ground water yields in areas of glacial deposits can exceed 100 gallons per minute, the varying thickness of glacial deposits results in highly variable yields of ground water. Ground water from areas with deposits of material over bedrock provide yields that are generally less than 10 gallons per minute, although some isolated yields can be greater. In addition, water from bedrock tends to be mineralized and contains hardness and iron that exceed national drinking water standards.

2.2.3 Land Cover

In **Figure 2.4**, Jackson, Clay, and Platte counties are the Planning Area's most urbanized counties with 42 percent, 28 percent and 15 percent impervious surface land cover, respectively. Jackson and Clay counties also have the highest percentages of water in the planning area, at 3 percent each. Ray County is the planning area's most rural county, with 70 percent of its land cultivated, another 21 percent in forests and only 6 percent as impervious surface. The next most forested counties are Jackson and Platte, with 19 percent and 16 percent forest land cover, respectively. Just over two-thirds of the land in Cass is cultivated, as is a majority of the land in Platte and Clay counties. **Figure 2.5** gives a view of the planning area's natural resources.



Source: MARC Natural Resource Inventory 2024

Figure 2.4: Land Cover by County



Source: MARC Natural Resource Inventory

Figure 2.5: Topographical Land Cover

2.3 Demographics



Figure 2.6 Planning Area Population

Source: ACS Census Bureau 2022 Estimates

The population of the planning area in 2022 was an estimated 1,206,971. As the graph above (**Figure 2.6**) shows, almost six in ten people living in the planning area reside in Jackson County, making it the most populous county. Clay County follows, with about two in ten area residents living there. A little less than one in ten people live in Cass and Platte counties, with the remainder in Ray County.

2.3.1 Population Density

Population is densest in Jackson County, especially in Kansas City inside the I-435 loop, where a combination of smaller lot sizes and larger quantities of multi-unit housing. Suburban cities such as Independence, Grandview, Lee's Summit, Blue Springs, Gladstone and Liberty have lower average densities. **Figure 2.7** shows the area's 2022 population density by census tract on the next page.



Figure 2.7: Planning Area Population Density, 2022

Source: MARC

2.3.2 Population Trends – Total Population

The population of the nine-county MARC region grew by over 136,000, or seven percent, from 2015 to 2022, from 1,999,251 to 2,1,03,419 (US Census Bureau, American Community Survey). The planning area's population grew from 1,143,266 in 2015 to 1,206,971 in 2022 and accounted for 51 percent of this growth, or 63,705 individuals. The five-county planning area is growing faster than the MARC region as a whole. **(Table 2.1)**.

Table 2.1: Population, 2015-2022									
County	2015	2020	2022	2015-2022 Change	2015-2022 % Change				
Cass	101,389	107,824	108,205	6,816	7%				
Clay	235,344	253,335	253,085	17,741	8%				
Jackson	687,182	717,204	715,526	28,344	4%				
Platte	96,552	106,718	107,033	10,481	11%				
Ray	22,799	23,158	23,122	323	1%				
Planning Area	1,143,266	1,208,239	1,206,971	63,705	6%				
MARC 9-county Region	1,999,251	2,103,419	2,102,064	102,813	5%				
Kansas City	475,368	508,090	502,597	27,229	6%				

Source: Census Bureau, 2020 decennial census, plus 2015 and 2022 ACS population estimates.

The more suburban counties of Cass, Clay and Platte grew by 7 percent or more between 2015 and 2022. Clay and Platte grew faster than the regional average, with 8 percent and 11 percent, respectively. Jackson County gained the most residents – 28,344 residents over the period. However, Platte had the highest percent increase. Cass County's rate of population growth has slowed somewhat since the growth in that county in the early 2000s. However, the county has grown by almost 7,000 persons since 2015. (US Census Bureau, American Community Survey). Ray County, the region's most rural county, recorded a slight increase over the period, adding 323 residents.



Source: Census Bureau, 2010 and 2020 decennial censuses

Figure 2.8: Area Population Change, 2010-2020

While most of the growth in recent decades has been concentrated in suburban areas, the region's urban center is experiencing growth in many neighborhoods, particularly around downtown and the southwest Kansas City, Missouri corridor. Jackson County's overall rate of growth lags slightly behind the region's, at 4 percent over the period. As the region's largest county, the low rate of growth still translates into adding over 28,000 people during the period, the highest level among Missouri side counties. (Figure 2.8).

The portions of the planning area experiencing population decline are concentrated in the southeast part of the city of Kansas City, Missouri, south of the Missouri River. However, Kansas City is benefiting from the substantial reinvestment and redevelopment in and around its downtown, which has resulted in an increase in the population there for the first time in decades. The 2022 population estimates show a 6 percent increase in Kansas City over the 2015-2022 period. In addition, Kansas City also includes most of the high-growth areas north of the Missouri River in Clay and Platte counties. For the five-county planning area as a whole, the growing areas outweigh the declining areas, resulting in an increase of 63,705 residents between 2015 and 2022, a 6 percent increase.

2.3.3 Population by Age

The data collected for this section came from the Census Bureau and the American Community Survey, Five-Year Estimates. This source offers data that is current through 2022. For this Plan update, the data covers a seven-year period, 2015-2022. Table 2.1: Population, 2015-2022, shows the total population as calculated starting in 2015.

The aging of the population is part of a long-term, national trend, caused by improvements in life expectancy and the aging of the post-World War II baby boom population. This is reflected locally by the median age increasing in all counties between 2017 and 2022 (American Community Survey). Jackson and Clay are the youngest counties, 37.0 and 37.5, respectively. Ray County's population is the oldest, with a median age of 42.0 years, having increased 0.2 years over the seven-year period. Meanwhile, the city of Kansas City is the youngest major jurisdiction, with a median age of 35.4 years. Changing race and ethnicity of the population played a role in moderating the increase in that county's median age. (Census Bureau, American Community Survey 2017-2022).



Figure 2.9: Population Under 5 Years Old Source: US Census Bureau, 2015-2022 ACS Estimates

Young children and the elderly are among the region's most vulnerable populations. As might be expected from the planning area's median age, Clay and Jackson counties and the city of Kansas City have the higher proportion of children under the age of five, at 7.0 percent **(Figure 2.9)**. The others recorded 6.0 percent and remained unchanged over the 7-year period. However, all jurisdictions have seen a decline in their population under 5 years during the 2015-2022 period. Platte County was the only jurisdiction to see an increase during the period. **(Figure 2.10)**. Jackson County lost the largest number of young persons, decreasing by 2,211 children under the age of 5 from 2015-2022.



Source: U.S. Census Bureau, ACS Estimates 2015-2022





Source: US Census Bureau, American Community Survey 2022 5-year data

Figure 2.11: Population Under 5 years by Census Tract for Planning Area

The population of children under five years old grew very slowly or decreased in all counties except Platte. The overall planning area saw a decline in young children by about 1,500 over this 7-year period. This reflects the national trend of families having fewer children and older generations living longer. (Source: US Census Bureau, American Community Survey). **(Figure 2.11)**

The largest concentration of young children appears to be in central and suburban Jackson County, though Cass, Clay, Platte, and Ray counties also have substantial concentrations of the population under five years of age.



Source: 2015-2022 American Community Survey, 5-year data



While the more urban counties have the highest proportion of the young, it is the rural counties of Cass and Ray that have the highest proportion of older adults, with 17% and 19% residents, respectively, being 65 years or over. The five counties experienced an increase of 2 to 3 percent over the 7-year time period. **(Figure 2:12)**



Source: U.S. Census Bureau, ACS 2015-2022

Figure 2.13: Change in Population 65 and Over, 2015-2022

In absolute numbers, Jackson County experienced the greatest increase in its senior population, adding over 20,000 older adults between 2015 and 2022. This was substantially higher than increases recorded in the other four counties. Much of the increase for Jackson County occurred in Kansas City. (Source: US Census Bureau, American Community Survey).





Unlike young children, older adults reside throughout the five-county planning area. There are pockets of older adults concentrated in eastern Kansas City in Jackson County as well as western Independence and southeastern Jackson County. There are also concentrations of older adults in North Kansas City and near Gladstone in Clay County, northern and central Cass County, eastern Ray County, as well as some parts of northern Platte County.

2.3.4 Population by Race and Ethnicity

The population of the Planning Area is mostly white, non-Hispanic, accounting for about 834,681 out of the 1.2 million residents, or 70 percent of the total, up 28,135 from in 2017. Black persons make up the next largest racial segment, at 16 percent of the Planning Area's population. Hispanic persons comprise eight percent of the population in the area, with Asians, multi-racial individuals, and other races comprising the remaining six percent. (Source: US Census Bureau, American Community Survey.)



Source: US Census Bureau, American Community Survey 2022





Source: 2017-2022 American Community Survey, 5-year data

Figure 2.16: Planning Area's Change in Population by Race/Ethnicity

The White population grew the most out of any race or ethnic group between 2017 and 2022 in the Planning Area, adding 28,135 people. Hispanics/Latinos grew by 16,541 while Blacks grew 8,458. The multi-racial population grew the most, by 44 percent over the 7-year timeframe. **(Figures 2.16 and 2.17)**



Source: 2017-2022 American Community Survey, 5-year data



Forecasts of the region's population by race and ethnicity suggest that if the minority population continues to grow faster than the White population, then at some point portions of the Planning Area may become the majority minority. The Kansas City, Missouri, minority population is 45 percent of the city's total population. The area's more rural counties are the planning area's least racially and ethnically diverse. Ray County has a white non-Hispanic population of 93 percent and Cass County's is 85 percent.



Figure 2.18: White and Minority Population Shares, 2022

While Kansas City, Missouri, has the largest concentration of persons of color, they are not spread uniformly throughout the city. The minority population, particularly the black population, is concentrated east of Troost Avenue, the historic racial dividing line due to legally sanctioned racial practices prior to the Civil Rights era. As a result of historic practices and policies, there remains a strong racial dividing line running north to south along Troost Avenue with blacks concentrated to the east of it



in the portion of Kansas City that is in Jackson County. The black population has grown southeast and south of the urban center, including Kansas City neighborhoods, Grandview, Lee's Summit and Blue Springs. (Figure 2.19)

Source: US Census Bureau, American Community Survey 2022

Figure 2.19: Minority Population 2022 (%)

While the majority of persons of color in central portion of Kansas City is largely Black, Hispanic persons are more dispersed, with some concentrations on the westside of downtown, in the northeast Kansas City area, Kansas City north and, to a lesser extent, to the south in Grandview and northern Cass County.



Source: US Census Bureau American Community Survey 2022

Figure 2.20: Hispanic Population 2022 (% of Persons by Census Tract)

The Planning Area has a growing Hispanic population, and while those persons who have moved to the region over the past five years tend to have greater language barriers, many long-time Hispanic residents speak both languages well. (Figure 2.20) The most prevalent language spoken in the planning area other than English is Spanish. Only 5% of Kansas City, Missouri's population does not speak English well. (Figure 2.21)



Figure 2.21: Population Speaking English Less than 'Very Well' (% of Hispanic Persons by Census Tract)



Source: 2017 and 2022 American Community Survey, 5-year data

Figure 2.22: White and Minority Population Growth, 2017-2022

Overall, the white population growth was smaller in comparison with minorities between 2017 and 2022. Jackson County's minority population grew the most among the 5 counties. All of the counties had more growth in their minority population than their white population. In Jackson County, minorities accounted for around 80 percent of the population growth. The city of Kansas City saw a majority of their population growth come from white persons, given that much of their population growth occurred in Clay and Platte counties. **(Figure 2.22)**



Source: Census Bureau, 2010 and 2020 decennial censuses

Figure 2.23: Change in White Non-Hispanic Population 2010-2020

The county and large city totals mask the underlying dynamics of population shifts in the Planning Area. The area where minorities are most concentrated is also the area of Kansas City experiencing population loss. Similar to whites in previous generations, minorities are also moving outward in search of better opportunities for jobs and housing, safer neighborhoods and better schools. As a result, suburbs have experienced increasing racial and ethnic diversity (US Census Bureau, Decennial Census). **(Figures 2.23 and 2.24)**



Source: Census Bureau, 2010 and 2020 decennial censuses

Figure 2.24: Change in Minority Population, 2010-2020

2.3.5 Poverty

There is a correlation between concentrations of persons of color and concentrations of poverty. In part, population loss is the result of the loss of households or a reduction in household size. Population loss may also be correlated with an increase in the number of vacant dwellings in urban core neighborhoods or non-residential reinvestment in areas. Some urban core neighborhoods could have experienced population loss while also showing reinvestment.



Figure 2.25: Population Below Poverty (% of Persons by Census Tract)

Almost every city and county in the Kansas City region has residents with low incomes, although greater concentrations of poor households are found in older, urban core neighborhoods. Many households on limited incomes live in homes that pose risks related to health due to particulate and lead exposures, as well as inadequate or expensive heating and cooling systems.

	2015		20	22	Change	
COUNTY	Total Population	Population Below Poverty	Total Population	Population Below Poverty	Total Population	Population Below Poverty
Cass	101,389	9.9%	108,205	7.0%	7,424	-2.9%
Clay	235,344	8.8%	253,085	8.3%	22,724	-0.6%
Jackson	687,182	17.9%	715,526	13.9%	34,621	-4.0%
Platte	96,552	7.7%	107,033	7.0%	13,639	-0.7%
Ray	22,799	15.9%	23,122	12.2%	91	-3.7%
Planning Area	1,143,266	12.0%	1,206,971	9.6%	78,499	-2.4%
Kansas City, MO	475,368	19.0%	505,958	14.9%	37,968	-4.1%

Table 2.2 Persons in Poverty by County, 2015 and 2022

Source: US Census Bureau, American Community Survey 2015 and 2022



Figure 2.26: Change in Population Below Poverty, 2000-2010

Growth in the economy and support from COVID-19 resources resulted in a drop in the population in poverty between 2017 and 2022. Poverty remains the most concentrated in the Jackson County portion of Kansas City where the population in poverty dropped by almost 25,000 over the 7-year period. Clay and Platte counties experienced modest increases of persons in poverty. The percentage of persons in poverty dropped in the planning area from 12% of total persons in 2017 to 9.6% in 2022. Jackson and Ray counties had the largest decline of persons in poverty, 4% and 3.7%, respectively.

Many aspects of population vulnerability are highly correlated with poverty, including unemployment, low levels of education, living in households with no vehicles, and not having health insurance. While other vulnerable populations are more spread throughout the Planning Area, including the disabled and veterans, many of these populations have lower incomes.

Maps 2.68 to 2.71 showing the location of these vulnerable populations may be found at the end of this section.



Figure 2.27: Housing Units Built before 1970 (%)

Households with limited incomes often reside in neighborhoods with older housing units. However, age of housing is not always an indicator of household wealth. **Figure 2.27** shows those areas with larger proportions of housing units that were built prior to 1970.

The Planning Area (and the entire Kansas City metro region) has seen a sizable increase in the number of multi-unit buildings over the past decade. As the value and sales price of single-family properties has increased and interest rates for mortgages has gone up, the rate of homeownership in the region has fallen. In addition to the increasing costs of properties and mortgage interest rates, institutional buyers have entered the Kansas City marketplace offering cash for properties, further reducing the supply of housing for homeownership.

Table 2.3: Housing Units by Occupancy: 2022								
County	County Owner Renter Vacant							
Cass	31,622	9,902	2,489					
Clay	67,850	31,651	6,070					
Jackson	174,963	123,945	31,676					
Platte	28,301	14,305	2,772					
Ray	6,889	1,884	1,105					
Planning Area	309,625	181,687	44,112					

Source: US Census Bureau American Community Survey 2017-2022

The planning area's housing stock data showed 535,424 in 2022, with 48.3% owner-occupied, 41.2% renter-occupied and 10.5% vacant.

2.4 Planning for the Future

2.4.1 Land Use

As the Kansas City region's Metropolitan Planning Organization (MPO), MARC makes land use forecasts as an input into the region's long-range transportation plan. MARC forecasts population and employment growth by first forecasting land use change, then applying planned densities to those changes. This process begins with the distribution of development as given by the region's current land use (Source: MARC).

Table 2.4: Existing Land Use by Major Type, in acres								
Land Use	Cass	Clay	Jackson	Platte	Ray	Planning Area		
Single Family	38,740	42,997	71,188	22,316	10,537	185,779		
Multi-Family		2,396	6,192	1,585		10,173		
Commercial	5,857	7,818	8,875	1,791	2,242	162		
Mixed Use			104	58	-	91,858		
Office		542	3,784	10,958	-	15,284		
Industrial/Business Park		2,820	15,576	5,272		50,110		
Public/Semipublic	14,999	30,964	9,917	2,998	4,864	29,324		
Parks and Open Space		787	30,176	5,730	-	36,693		
Vacant or Agricultural	380,377	144,698	188,818	199,444	332,961	1,246,299		
Other		2,567	16,111	4,129	4	22,811		
Total	439,974	235,589	350,743	254,281	350,607	1,631,194		

Source: County Assessors Offices and GIS departments, as compiled and tabulated by MARC



Source: County Assessors Offices and GIS departments, as compiled and tabulated by MARC

Figure 2.28: Area Land Use

Vacant or agricultural land is still the dominant land use in the Planning Area, comprising two-thirds of the total land area. Adding parks and open space to this total, more than three-quarters (78 percent) of the Planning area is undeveloped. This varies by county, from Ray and Cass counties, with 96 percent and 88 percent undeveloped, respectively, to Jackson County, with 56 percent undeveloped.

Among the land devoted to developed uses in the Planning Area, single-family residential areas comprise half of it, and right-of-way—principally for roads—make up another quarter. Public/semi-public facilities, such as Kansas City International Airport (KCIA), city halls, schools and churches, sit on nine percent of the developed land, while commercial areas consume six percent, as do office/warehouse parks and industrial areas. The highest density uses take up the least amount of land, as multifamily and office uses comprise only two percent and one percent of the developed land area, respectively. **(Figure 2.28)**

Given its relative share of developed land uses, single-family homes dominate the structure count, comprising 86 percent of the total structures in the Planning Area (See Table 2.5).

Table 2.5: Building Counts by Major Land Use Type									
Land Use Type	Cass	Clay	Jackson	Platte	Ray	Total			
Single Family	53,159	86,657	259,396	35,470	19,207	453,889			
Multi-Family	86	6,894	18,367	3,767		29,114			
Commercial	2,002	2,654	6,571	822	527	12,576			
Office		509	3,057	590		4,156			
Industrial/Business Park	3	989	5,054	749		6,795			
Public/Semipublic	1,013	1,993	3,668	545	466	7,685			
Vacant or Agricultural	773	622	8,624	917	398	11,334			
Total	57,036	100,318	304,737	42,860	20,598	525,549			

Source: City and County GIS departments and MARC 2023 estimates

The share of total building value attributed to single family structures drops to 30.5 percent. Multifamily buildings comprise 33.9 percent of the building value in the planning area. This is followed by the value of buildings in commercial (other than office), public/semi-public and industrial at about 10 percent each. Over half (51.1%) of the Planning Area's building value is in Jackson County. (**Figure 2.29 and Table 2.6**)



Source: County assessors, city and county Planning and GIS departments, as compiled and tabulated by MARC.

Figure 2.29: Building Value by Major Land Use Type

	Table 2.6: Building Value by Use Type									
Building Type	Cass	Clay	Jackson	Platte	Ray	Total				
Single Family	\$13,795,778,240	\$21,042,203,300	\$3,057,593,611	\$8,617,341,255	\$2,183,039,200	\$108,695,955,606				
Multi-Family	\$21,408,810	\$39,283,782,900	\$47,646,743,692	\$33,638,101,648		\$120,590,037,050				
Commercial	\$1,485,674,940	\$13,301,612,600	\$15,597,872,868	\$5,297,656,848	\$125,562,300	\$35,808,379,556				
Office	\$-	\$706,655,800	\$11,226,156,092	\$3,612,725,098		\$15,545,536,990				
Industrial/ Business Park	\$74,607,170	\$2,317,910,200	\$18,201,925,828	\$14,478,439,788		\$35,072,882,986				
Public/Semipublic	\$871,134,670	\$8,855,844,800	\$23,070,990,830	\$4,038,217,919	\$3,399,010	\$36,839,587,229				
Vacant or Agricultural	\$66,879,435	\$132,622,570	\$3,286,834,026	\$81,182,940	\$12,022,630	\$3,579,541,601				
Total	\$16,315,483,265	\$85,640,632,170	\$182,088,116,947	\$69,763,665,496	\$2,324,023,140	\$356,131,921,018				

Source: County assessors, city and county planning and GIS departments, as compiled and tabulated by MARC.

2.4.1a Planned Land Use

After collecting existing land use, MARC surveys cities and counties to obtain their future land use plans. Typically, these plans are designed to visualize what the jurisdiction will look like once it is fully built-out or, in older areas, when anticipated redevelopment is completed. As such, these plans provide guidance for MARC's forecast concerning what kinds of development will occur and where, provided there is sufficient demand to make the development economically feasible (See Table 2.7).

	Table 2.7: Planned Land Use by Major Type, in acres								
Land Use (in acres)	Cass	Clay	Jackson	Platte	Ray	Total			
Single Family	46,358	58,094	129,236	36,639	10,605	280,932			
Multi-Family	2,741	7,998	14,128	5,867	5	30,739			
Mixed use	46,649	34,035	10,120	3,526		94,331			
Commercial	8,238	4,419	10,574	2,508	1,839	30,629			
Office	985	1,001	3,040	411		5,436			
Industrial/Business Park	7,426	13,558	21,830	9,461	30	52,304			
Public/Semipublic	2,329	4,815	6,746	11,641	4.980	30,511			
Parks and Open Space	4,615	18,437	38,156	8,887		70,096			
Vacant or Agricultural	312,194	92,950	116,316	175,099	333,146	1,029,705			
Other	8,439	281	597	32	3	9,353			
Total	449,514	350,743	254,281	350,607		1,631,194			

Source: City and County Planning and GIS departments, as compiled and tabulated by MARC.

Planned land use maps in local land use plans are not as precise as the data for existing land use, so most of the land in right-of-way is classified according to its surrounding land use. The planned land use map (Figure 2.30) shows that local governments expect most of the planning area's vacant and agricultural land to be developed as single-family housing at some point in the future. Given that the population in the Kansas City region is only projected to grow by 17.5 percent between 2020 and 2050 indicates that suburbanization trends are expected to continue with new development on green field sites but at a slower rate during the 30-year planning horizon.



Figure 2.30: Planned Land Use with 100-Year Floodplain

To forecast where development is expected to occur between 2020 and 2050, given the vast quantity of land where growth could theoretically occur, MARC uses a series of statistical models to estimate the land most likely to develop. These history-based probabilities are augmented with information concerning local priorities for development that jurisdictions are encouraging with policies, investments and incentives. In general, local plans exclude future development from flood plains, so no new growth is forecast there.

Additionally, most local governments plan to focus future development in activity centers (Figure 2.31) along transportation corridors to increase walkability, better serve growing senior population, and make growth more affordable by limiting infrastructure extensions (Source: MARC information from local land use plans).



Figure 2.31: Planning Area Activity Centers

2.4.1b Land Use Forecast

Future land use is forecast based on 1) the expected growth in total population and employment, 2) the probability a given parcel of land will newly develop, redevelop, or decline based on existing land use and historical trends, and 3) current local land use policy and public investments designed to focus growth where it can be most efficiently and successfully accommodated. These forecasts also include as a policy that no new development will occur in floodplains (Source: MARC).

As a result, most new development (Figure 2.32) is projected to occur adjacent to or near existing development, especially along existing transportation corridors and in existing or planned activity centers.



Source: MARC

Figure 2.32: Forecast Future Land Use with 100-Year Floodplain

2.4.2 Population Forecasts

This future land use forecast is then converted to a population and employment forecast by applying the planned densities, along with expected persons per household and employees per square foot, to the forecast land use. When aggregated to a county level, Clay County is forecast to experience the greatest population growth, adding more than 106,000 people between 2010 and 2040, while Platte County is expected to grow the fastest, increasing its population by 57 percent over the period, a gain of some 51,000 people. Jackson County will remain the planning area's largest county, adding about 68,000 people—second most in the planning area—to reach 742,000 by 2040, a 10 percent increase over 2010 levels. Cass County is expected to add 41,000 people during the 30-year period, an increase of 41 percent. Population forecasts were not available for Ray County in the MARC 2040 Forecast and American Community Survey sources. The 2020 forecast listed for Ray County is the current 2018 population to show change over a period. Combined, the planning area's population is forecast to grow by more than one-quarter million by 2040, a 24 percent increase over its population in 2010. **(See Table 2.8)**

Table 2.8: Population Forecast							
	2020-2050 2020-2050						
County/Area	2020	2030	2050	Change	Change		
Cass	107,743	116,637	132,986	25,242	23%		
Clay	253,124	273,108	306,074	52,954	21%		
Jackson	716,641	763,275	814,324	97,665	14%		
Platte	106,614	122,234	146,244	39,628	37%		
Ray	23,142	21,922	21,227	-1,916	-8%		
Planning Area	1,207,263	1,297,176	1,420,854	213,573	18%		
Planning Area							
Share	57%	58%	58%	0.1%	0.2%		
MARC Region	2,101,548	2,249,167	2,469,120	367,571	17%		

Source: Census Bureau, MARC.





Source: Census Bureau, MARC



Figure 2.34: Population Forecasts Percent Change 2020-2050

Source: Census Bureau, MARC

The city of Kansas City population in households is expected to grow by 72,385 people between 2020 and 2050, a 14.5 percent increase. Most of its growth will be concentrated in the Northland—i.e., the portions in Clay and Platte counties, which lie north of the Missouri River. Besides Kansas City, Liberty, Kearney, Smithville, Gladstone and Parkville are expected to experience population growth over the period. In Jackson County, the urban core portions of Kansas City are forecast to continue to decline, albeit at reduced rates compared to historical trends. This decline is partially offset by the continued redevelopment in and around downtown Kansas City, MO. Most of the growth in Jackson County, however, is concentrated in the eastern portions, particularly in Independence, Lee's Summit and Blue Springs and, to a lesser extent, Grandview. In Cass County, population growth is expected to continue to be concentrated in its northern tier of cities – Belton, Raymore, Peculiar and Pleasant Hill. However, Harrisonville is also expected to see population growth between 2020 and 2050 (Figure 2.35).



Figure 2.35: Population Forecast 2020 – 2050 by Census Tract. Source: MARC


Figure 2.36: Kansas City MSA Population Change by Broad Age Group, 2001-2020 and 2020-2050 Source: U.S. Census Bureau and MARC

Perhaps the biggest demographic change expected in the future is the aging of the population. The number of older adults—defined as those 65 years old and above—in the Kansas City metropolitan area is expected to increase by 233,000 between 2020 and 2050 (Figure 2.36).

In 2015, older adults were 13 percent of the planning area's population. With the 2022 population estimates from the American Community Survey, older adults over 65 years old make up 15 percent of the five-county planning area. The number of older adults increased by 37,551 between 2015 and 2022, with 53 percent of the increase occurring in Jackson County. All counties in the planning area gained older adults. The aging of the baby boom generation means the senior share of the region's population is expected to increase to 20 percent by 2030. As a result, the population 65 and older will approximately double between 2010 and 2030 bringing their total to nearly one-half million. In fact, fully 58 percent of the Kansas City metropolitan area's total population growth between 2010 and 2030 is expected to be as a result of the increase in adults 65 years of age and older.



Source: U.S. Census Bureau ACS

Figure 2.37: Change in Population 65 Years and Older 2015–2022

Conversely, the younger adult share of the population will decline from 28 percent to 24 percent, while the middle-aged adult share will decline from 27 percent to 24 percent between 2010 and 2030. (See Figure 2.49) Because the region's overall population is expected to grow by some 600,000, however, these age groups are still projected to increase in numbers despite their declining share.

These changes in the age structure of the population have implications for how the region accommodates its population growth in terms of its land use. Compared to the prior 20 years, most of the growth in the future will be from households who may seek a smaller rather than a larger home in which to live, with amenities near-by and accessible by multiple means—walking, transit, ride sharing—rather than only by way of driving a private motor vehicle.

2.4.3 Employment Forecasts

The five-county planning area is expected to add almost 144,000 new jobs between 2020 and 2050, a 26% increase. Growth is expected to be greatest in Jackson County, with the addition of 71,787 jobs. Platte County is expected to see the largest percentage job growth over the forecast period, growing 48%.

Table 2.9: Employment Forecast by County							
COUNTY	2020	2030	2050	2020-2050 Change	2020-2050 % Change		
Cass	27,370	31,614	35,607	8,239	30%		
Clay	105,335	133,248	146,636	41,300	39%		
Jackson	370,602	404,287	442,368	71,787	19%		
Platte	47,392	61,603	70,005	22,618	48%		
Ray	3,795	3,791	3,768	(26)	-0.7%		
Planning Area	554,494	634,542	698,385	143,918	26%		
Planning Area Share	54%	55%	56%	1.5%	2.7%		
MARC Region	1,022,823	1,154,485	1,254,270	231,478	23%		

Source: Bureau of Labor Statistics, Census Bureau, MARC.



Source: Bureau of Labor Statistics, Census Bureau, MARC





Figure 2.39: Employment Change, 2020-2050 (%)

Platte County's job growth is expected to be the next fastest, as it is forecast to increase its 2020 employment levels by 48 percent, resulting in a gain of 22,618 jobs. Meanwhile, Ray County's jobs will drop slightly over the period. (See Table 2.8 and Figures 2.38 and 2.39)

The city of Kansas City accounts for 45 percent of the Planning Area's projected employment growth. In addition to the area near KCI, significant employment increases are expected in and around Downtown, in Kansas City north in Clay County, in eastern Jackson County, and in south Kansas City. Professional and scientific services, health care, manufacturing and wholesale trace are among the growth industry sectors in the planning area.

Other cities in the Planning Area expecting to add a significant number of jobs include Liberty in Clay County, Lee's Summit. Independence and Blue Springs in Jackson County. (Figure 2.40)



Figure 2.40: Forecast Employment Change 2020-2050

2.5 Kansas City Regional Economy

2.5 Kansas City Regional Economy

MARC serves as the Economic Development District for the 9-county Kansas City metro area, including the Missouri side Planning Area. A new Comprehensive Economic Development Strategy Plan was adopted by the MARC Board of Directors in September 2024. The Plan reviewed updated demographic and economic data, included a SWOT analysis and outlined goals and strategies to strengthen the region's economy and support inclusive prosperity. <u>Economic Development | MARC</u>

In exploring the region's economic resiliency and prosperity, the economy's overall growth rate is measured by its growth in workers and their productivity. However, growth, all by itself, isn't enough. Inclusion allows everyone to experience the benefits of that growth through a rise in their standard of living.

The 2024-2029 CEDS aligns with the region's business-led civic collaborative – KC Rising – and its *Pillars of Prosperity* focused on economic prosperity for all. KC Rising established four long-term metrics key to determining how well the Kansas City region is simultaneously achieving both greater economic growth and greater inclusion in receiving the benefits from that growth.

Two of the four are overarching growth metrics followed by two overarching inclusion metrics.

- Net migration rate, a key component of population growth thus labor force growth
- **GDP** per job, a measure of productivity, or how much each worker produces.
- Percent of workers living in self-sufficient households, a measure of whether jobs that people have are sufficient to cover bills for necessities such as housing, transportation, childcare and healthcare.
- Black/white housing wealth gap, based on a measure of homeownership. Even self-sufficient incomes
 may not be sufficient to cover unexpected expenses. It takes wealth to be resilient in the face of adversity
 and this starts with owning a home.

Benchmark Metros

To measure progress, KC Rising benchmarks the **region against ten aspirational metros** that historically have done a little better than KC on growth, inclusion, or both, and that we continuously compete against for economic development projects. These metros are Austin, Charlotte, Cincinnati, Columbus OH, Denver, Indianapolis, Minneapolis, Nashville, Portland, and Raleigh.

What enables the population of some metros to grow faster than others is their ability to attract people from outside the area. This makes net migration a measure of a region's ability to attract and retain talent, which is essential to business attraction and retention.

BENCHMARK METROS

Austin Charlotte Cincinnati Columbus Denver Indianapolis Minneapolis Nashville Portland Raleigh

Net Migration

Kansas City's **net migration rate** is half that of the benchmark metro average, though in the last year the region began to close a gap that had been widening post-pandemic. Its net migration rate doubled in the past year and currently ranks 8 out of 11.

Figure 2.41: Net Migration Rate Over Time



Sources: Census Bureau Population Estimates 2017-2023 Note: Calculation based on 3-year moving average.

Net Migration Rate Over Time

Gross Domestic Product (GDP)

GDP measures the total economic value generated by an economy's businesses in the process of employing workers to transform inputs into finished goods and services for sale. GDP per job measures the average amount the region's workers are able to contribute to GDP. As such, it is a measure of business productivity.

High levels of business productivity tend to attract other businesses. Unfortunately, Kansas City's *GDP per job* currently ranks 10 out of 11 and the gap compared to benchmark metros has grown by \$3,000 per worker over the past five years. Considering the region has more than 1 million workers, this increase costs the economy \$3B annually.

Figure 2.42: Yearly Increase in GDP per Job



Sources: Bureau of Economic Analysis 2017-2022 Notes: Calculation based on 3-year moving average.

Self-Sufficient Households

Growth, all by itself, isn't enough. We want everyone to experience the benefits of that growth through a rise in their standard of living. One measure of whether everyone is benefiting is whether all households earn enough to pay their bills. If they do, then we can consider them to be **self-sufficient households**. Increases in self-sufficiency generally mean incomes are rising faster than costs.

Kansas City's historical affordability advantage is slipping and currently ranks 8 out of 11. While most metros saw significant progress in becoming more affordable between 2017 and 2022, Kansas City's progress stagnated and appears to have reversed in the last year.

Figure 2.43: Percent of Workers in Households with Self-Sufficient Incomes



Percent of Workers in Households with Self-Sufficient Incomes

Sources: American Community Survey PUMS 2017-2022. Note: Calculation based on 3-year moving average.

68%

Wealth Gap

Self-sufficiency alone is not enough either. While a self-sufficient income can pay the bills, it can also be fragile if there are unexpected expenses, such as a serious illness, or unexpected loss of income, as when one of the earners in the household loses their job. **Resiliency in the face of unexpected adversity requires wealth** and, for most households, wealth-building begins with home ownership.

Black households in Kansas City average about 37% of the housing wealth of white households, a rate that ranks 10th among its benchmark metros in 2022. While up from 32% in 2017, Kansas City's advancement has not enabled it to improve its performance relative to the benchmark average.



Sources: American Community Survey PUMS 2017-2022 Note: Calculation based on 3-year moving average. Benchmark average calcuated using unweighted average of the metros.

Figure 2.44: Black Percent of White Housing Wealth



KC Metro 2024 Employment





What explains the region's sluggish economic performance? Kansas City's industrial structure is heavily oriented toward production of services rather than goods. This is similar to the nation. How similar can be measured by comparing each industry's proportion of total regional and total national jobs. When they are the same, the ratio of these proportions, called a "location quotient," is equal to 1.

In the Kansas City region, over 85% of employment in industry sectors with a location quotient between 0.9 and 1.2. Those include Professional, Scientific and Technical Services; Wholesale Trade, Management of Companies; Other Services; Arts, Entertainment and Recreation; Construction and Retail Trade. Only two sectors have LQ's greater than 1.2 – Transportation and Warehousing and Finance and Insurance. Manufacturing is just below 1.0 at .98. Yet, regions grow by serving a larger economy through exports. The dollars they bring to region are used to hire workers whose spending on homes, transportation, food, education, and entertainment create the demand that supports all of a region's local-serving jobs. In general, for regions the size of the Kansas City metropolitan area, each dollar earned from the sale of an exported good or service generates at least one additional dollar of sales for local-serving industries.

While having a broad-based economy that mirrors the nation promotes economic stability, it also suggests the region's capacity to export goods and services to the rest of the world is relatively weak. Exporting depends on being the superior producer of something the rest of the world needs or wants but does not produce or produce it as well. Therefore, specialization is a key to having product to export.

EXPORTS

Location quotients, then, measure the level of specialization and so are one indicator of export capacity. If we look at more detailed industries than the broad sector level, definite employment specializations emerge. These industries all have location quotients greater than 1.5, with small- arms manufacturing, electronics manufacturing, monetary authorities and communications equipment manufacturing all having LQs greater than 10.



KC Largest Exporting Industries

Figure 2.46: KC Largest Exporting Industries

Source: Lightcast

However, by ranking the same industries by their number of employees, a clearer picture emerges of the industries on which the Kansas City regional economy depends – warehousing, computer systems design, insurance, engineering, hospitals, auto manufacturing, electronic manufacturing, freight-related transportation, medical labs. These, then, are the economic clusters that have historically powered the region's economy.

KC Largest Exporting Industries Ranked by 2022 Jobs



Figure 2.47: KC Largest Export Industries Ranked by 2022 Jobs

Source: Lightcast

2.5.1 Planning Area Economy



Figure 2.48: Planning Area Employment, 2023

Source: Lightcast 2023

Jackson County comprises 66 percent of the planning area jobs, with 409,409 jobs of the planning area's total job count of 622,677. Clay and Platte counties form the next largest portion of the Planning Area economy with 27 percent of its jobs, combined. Clay County's 120,000 jobs account for 19 percent of the area job total, while Platte County's 52,000 jobs contribute another 8 percent. The remaining 7 percent of the Planning Area's jobs are mostly in Cass County, with Ray County contributing one percent.

The 2020 Plan update characterized the Planning area as showing strong employment growth. The plan was published just prior to COVID-19 pandemic, which caused a dramatic but temporary loss of jobs. The region has recovered most of the jobs lost during the pandemic but is growing at a slower pace.

2.5.2 Employment by Industry

Government is the largest industry in the Planning Area, compromising 14 percent of its total employment. The vast majority of government is local government, and within that sub-sector, public schools make up the largest component.

The next largest industry is health and social services, with 11.8 percent of the area's employment, followed by retail (9.8%), hotel and food (9%) and the professional services industry (8.4%) of the planning area's overall employment.

Retail, hotel and food workers tend to have wages that are lower than average. The next three largest industries, however—manufacturing, finance and insurance, and administrative —employ people making above average wages. Jobs in skilled trades have become a larger segment of the workforce, with construction trades, manufacturing, wholesale trade and transportation/logistics accounting for over 22 percent of the jobs in the planning area. (Source: Lightcast 2023)

Different counties specialize in different industries, however, so it is useful to compare their distribution of employment with the Planning Area overall.





Figure 2.49: Planning Area Distribution of Employment by Industry

See Table 2.10: Employment by Industry by County for the Planning Area 2023 (Bureau of Economic Analysis). Each county has a specialized combination of employers and employment. Cass County's largest employment sectors include government, retail trade, warehousing, hotel and food establishments, and construction. Clay County's employment led in government, manufacturing, retail trade and hotel and food establishments. Jackson County's major employment sectors are government, health care, professional and technical services, hotel and food establishments, manufacturing and construction. Plate County's largest employment sectors are retail trade, government, hotel and food establishments, warehousing and construction. Ray County's detail was not available.

Table 2.10: 2023 Jobs by Industry and by County 2023									
Jobs by Industry	Cass	Clay	Jackson	Platte	Ray	Planning Area			
Government	5,158	16,792	58,300	5,361	N/A	86,932			
Health Care, Social	3,428	9,853	55,099	4,518	N/A	73,231			
Retail Trade	,			,	N/A	-			
	4,915	12,882	36,126	6,718		61,290			
Hotel and Food	3,639	10,640	36,298	5,233	N/A	56,233			
Professional and	1 150	0.041	40 227	2 5 4 6	NI / A	F2 100			
Technical	1,156	8,041	40,227	2,516	N/A	52,109			
Manufacturing	2,145	14,621	28,962	3,987	N/A	50,202			
Construction	3,008	6,723	25,098	2,970	N/A	38,165			
Other Services	1,665	6,160	23,302	2,197	N/A	33,927			
Remediation Services	2,018	8,875	17,013	3,748	N/A	31,759			
Finance and Insurance	795	2,793	24,919	1,594	N/A	30,223			
Transportation and									
Warehousing	3,849	8,131	12,598	4,484	N/A	29,336			
Wholesale Trade	983	6,431	11,777	3,263	N/A	22,523			
Entertainment	375	2,907	7,684	1,427	N/A	12,449			
Real Estate	376	2,099	7,243	1,535	N/A	11,290			
Education	282	1,254	8,640	974	N/A	11,167			
Management	33	1,037	6,840	297	N/A	8,224			
Information	125	543	6,677	577	N/A	7,942			
Agriculture	1,458	290	1,353	313	N/A	3,602			
Utilities	191	161	1,226	225	N/A	1,828			
Mining	78	103	28	16	N/A	246			
	35,676	120,337	409,409	51,954	5,301	622,678			

Source: Bureau of Economic Analysis

2.5.3 Employment Location



Figure 2.50: Areas of Business by Number of Employees

Businesses tend to locate where there is a combination of high demand in terms of population and income and good access to a talented workforce. As a result, businesses tend to cluster along major roadway facilities in areas with significant population density. Exceptions are industrial and warehouse facilities, where access to large tracts of land with good rail access is more important than access to population. The region's most recent large employment centers tend to be located along major highways in outlying suburban areas, such as major logistics centers, new data centers and the new Panasonic EV battery plant and associated development.

Shopping centers are located near major arterials and highway interchanges to maximize their access to the biggest possible consumer market. This is especially apparent when examining some of the Planning area's largest shopping areas (See Figure 2.51: Area Shopping Centers below). For example, Independence Center, with 1.4 million square feet of space, is located at the intersection of I-70 and U.S. 291. Zona Rosa, Tiffany Springs Market Center, and Boardwalk Square all sit at in different quadrants of the I-29/M-152 Interchange while Barry Towne is near the intersection of U.S. 169 and M-152 in Clay County, and Summit Fair and Summit Woods Crossing in Lee's Summit are located at the intersection of I-470 and U.S. 50.



Figure 2.51: Area Shopping Centers

The nation's oldest shopping center, and still one of the region's most successful, the Country Club Plaza, is located along Ward Parkway near Broadway and Main, all principal arterials. It anchors the south end of the region's densest cluster of employment, which stretches from the River Market area, through Downtown, the Crossroads and Crown Center to the Plaza.

Downtown has seen a remarkable economic turnaround, with the opening of the Sprint Center and Power and Light District in 2007. Considerable conversions of older buildings to loft spaces and significant new multifamily and hotel construction is occurring throughout the downtown from the City Market through the Crossroads area, especially along the KC Streetcar line that opened in 2016. Due to overwhelming success of the first phase of the transit system, the extension from Union Station to the Country Club Plaza and UMKC along Main Street is expected to begin operation in 2025. Additionally, a new 800-room convention hotel immediately adjacent to the Bartle Hall Convention Center opened in 2020. Major employers located principally or headquartered in the planning area include Cerner and North Kansas City Hospital in Clay County; HCA Midwest Health System, Saint Luke's and Children's Mercy Hospitals, Hallmark Cards, DST (State Street), Truman Medical Centers, Honeywell, Burns & McDonnell, and Commerce and UMB Banks in Jackson County; and Farmland and Citi Cards in Platte County. Several plant closings, including the Harley-Davidson plant in Platte County, will impact employment. (MARC)



Source: Census Bureau, Longitudinal Employer-Household Dynamics (LEHD) Origin-Destination Employment Statistics (LODES), 2011

Figure 2.52: Area Employment Density

2.5.4 Education & Income

In recent years, all counties in the planning area have seen significant increases in adult educational attainment, as measured by the percentage of their residents 25 years and older who have earned a bachelor's degree or higher. The planning area saw a four percent increase in the overall educational attainment average between 2015 and 2022. It was led by Platte County, whose residents' attainment of a bachelor's degree increased seven percentage points over the period, to 44 percent. Clay County has the second highest average level of educational attainment in the planning area, with 35 percent of its residents earning at least a bachelor's degree. Kansas City, Missouri, increased by 8 percent to 37 percent of all adults. In the 2015-2022 period, Ray County has increased the slowest, at 0.08 percent. (Figure 2.53)



Source: U.S. Census Bureau 2015-2022 American Community Survey

Figure 2.53: Bachelor's Degree or Higher, 2015 and 2022 (%)



Source: U.S. Census Bureau, American Community Survey

Figure 2.54: Real Median Household Income

Like educational attainment, the real median household income increased in every county in the planning area. The real median household income annual income of the household right in the middle – half the area's households earn more, and half earn less. Real incomes are those after adjusting for inflation and so measure the purchasing power of households. The data is based on inflation adjusted dollars for that year. Because the consumer price index increased 30 percent across the nation between 2015 and 2022, in the Kansas City metropolitan area over this period, nominal incomes would have needed to increase 30 percent simply to keep up. Ray County had the lowest in 2015 and Jackson County had the lowest in 2022. Median household incomes increased between 32 and 39 percent across the 5 counties with the highest in Jackson County, a 39 percent gain.

Platte County has the highest median household income of all planning area counties with \$92,543 in 2022. Households residing in Clay and Cass counties have the next highest incomes, with their median households earning over \$84,000. Jackson County has the lowest median household income of any county in the planning area, at \$65,169. This is largely due to the concentrated poverty in the city of Kansas City, which itself has a median household income of \$65,256.

2.6 Property Value



Source: County Assessors 2023

Figure 2.55: Total Property Value by County

Despite having the lowest household incomes among the counties in the planning area, Jackson County contains a significant majority of real estate value due to its relative size and its function as an employment center. Jackson County is home to 59 percent of the planning area's population, and 58 percent of its property value, approximately the same as its percentage of the planning area employment. Clay County contains 23 percent of the real estate property value in the planning area and Platte County contains 10.5 percent, both of which are also about the same as their share of the area's employment. (See Figure 2.55)

The total value of real estate property in the planning area in 2023 was approximately \$102.5 billion. Jackson County accounted for \$59.3 billion of that, followed by Clay with \$23.8 billion, Platte with \$10.8 billion, Cass with \$7.7 billion, and Ray with \$1 billion. The city of Kansas City alone accounted for over one-fourth (26 percent) of the property value in the planning area with \$28.9 billion.





Improvements, principally buildings, comprise 78 percent of the total property value in the planning area, with land value accounting for the remaining 22 percent. These shares are remarkably stable across the counties in the area. Land's share of total property value ranges from a low of 14 percent in Ray County to a high of 24 percent in Jackson County.

Table 2.11: Improvement, Land, and Total Property Value							
County/Area	Land	Improvement	Total				
Cass	\$1,265,531,563	\$6,413,229,155	\$7,678,760,718				
Clay	\$4,628,898,360	\$19,188,024,099	\$23,816,923,100				
Jackson	\$14,373,386,758	\$44,889,149,446	\$59,262,536,204				
Platte	\$2,217,831,190	\$8,546,167,805	\$10,763,998,995				
Ray	\$142,571,942	\$870,240,724	\$1,012,812,666				
Planning Area	\$22,628,219,813	\$79,906,811,229	\$102,535,031,683				
Kansas City, MO	\$7,061,433,338	\$21,275,078,316	\$28,891,081,845				

Source: County Assessors, 2023

2.7 Critical Infrastructure

2.7.1 Transportation

The Kansas City region, a major transportation hub, sits at the intersection of four interstate highways — Interstates 70, 35, 29 and 49 — which connect the region to both coasts, Canada and Mexico. In addition, the region is served by numerous interstate beltways, U.S., and state highways.

Streets and highways form the foundation of the transportation system. According to the latest data, nearly 16,000 miles of public roadways in the region carry about 47 million vehicle miles of travel each day. Based on the Federal Highway Administration 2012 Highway Statistics Report, the bistate Kansas City urbanized area ranks 28th in the nation for roadway miles per capita, far ahead of larger urbanized areas such as St. Louis, Atlanta and Chicago.

Major trucking companies operate out of the Kansas City area. Air transportation, including considerable air freight operations and general aviation activity, is served by Kansas City International Airport, Charles B. Wheeler Downtown Airport and a number of smaller general aviation airports. Kansas City is the second busiest railroad center in the nation, with major rail yards for Union Pacific, Burlington Northern, and Canadian Pacific. The region is also served by barge transportation, with about a dozen regulated barge lines transporting goods through the metropolitan area on the Missouri River (MARC Transportation Plan).

2.7.2 Roadway System Infrastructure

Kansas City's system of roadways is among the most extensive in the nation. According to Federal Highway Administration 2012 statistics, the Kansas City region ranks 28th nationally among major metropolitan areas on the most freeway miles per person of urbanized areas with populations greater than 500,000.

These rankings are due in large part to the extensive highway projects implemented in the Kansas City region during the 1970s and 1980s, such as the construction of the Interstate 435 loop. **Table 2.12** shows the functional class miles for major freeways and roadways in the Kansas City Area. Data was collected by the MARC transportation department, no data reported for Ray County.

Table 2.12: Transportation Facilities by Functional Class Miles							
Roadway Type	Cass	Clay	Jackson	Platte	Planning Area		
Interstate	60	93	177	99	429		
Freeway / Expressway	0	109	119	25	254		
Principal Arterial	49	60	189	34	332		
Minor Arterial	100	145	507	90	842		
Major Collector	249	197	310	160	915		
Minor Collector	45	11	2	8	66		
Total	503	616	1,305	415	2,839		



Figure 2.57: Regional Transportation System

2.7.3 Roadway System Condition

According to The Road Information Program's (TRIP) report *Missouri Transportation by the Numbers: meeting the State's Need for Safe, Smooth, and Efficient Mobility,* one-third of the nation's major urban roads are rated in poor condition. In the 2018 report, Kansas City's average pavement conditions showed significant increase in the percentage of roads with "poor" conditions in comparison to the 2013 Bumpy Roads Ahead research report.

In the 2013 report, only 15 percent of Kansas City's roads were classified as "poor" pavement conditions. In 2018, 26 percent of the roads were classified as "poor". The 2018 report found 27 percent of the Kansas City region's roads to be in mediocre condition; 17 percent fair; and 30 percent good. The Bumpy Road Ahead report also breaks down the hidden costs of deficient roads. In Kansas City, drivers should expect to pay \$667 in additional vehicle operating cost, \$334 in traffic crashes, and \$988 in lost time and wasted fuel due to congestion. TRIP's report uses FHWA data for its analysis.

2.7.4 Bicycle/Pedestrian Trails

Bicycle and pedestrian trails in the Kansas City metropolitan area are being developed at an increasing rate as local communities hear from their residents about desires for safe facilities to walk and bicycle. Many of the local trail facilities are part of MetroGreen[®], a plan for a 1,100-mile, area-wide, interconnected system of public and private open spaces, greenways and trails that will link seven counties in the Kansas City metropolitan area. Error! Reference source not found. MARC's Long-Range Transportation Plan shows Bicycle and Pedestrian Trails and on-road facilities in the MARC area (Cass, Clay, Jackson, Johnson, Leavenworth, Miami, Platte, Ray, Wyandotte) and the Hazard Mitigation planning area (Cass, Clay, Jackson, Platte, Ray). Additionally, many communities in the region have adopted local plans for both on-road and off-road facilities.

Table 2.13: Bicycle and Pedestrian Trails (Miles)							
Mobility Type	MARC Region	Planning Area					
Bike Lanes	104.46	37.48					
Cycle Track	0.89	0.89					
Mountain Bike Trails	117.76	71.4					
Walking/Hiking Trails	241.64	144.86					
Bike Routes	220.43	220.43					
Share-the-Road Bikeways	506.92	147.93					
Paved Trails	755.09	397.24					

Source: MARC

2.7.5 Freight and Goods Movement Facilities

Kansas City's rail system consists of five Class I railroads and several regional or short line carriers. The extensive rail network throughout the region serves local industry with major intermodal yards and provides connection to international markets. BNSF Railway's Transcontinental Route runs diagonally through the region from the southwest to the northeast. The "Transcon" connects the Ports of Los Angeles and Long Beach to Chicago via Kansas City with 80 to 90 trains per day. The Union Pacific (UP) Railroad's major coal route runs east-west through the region from Topeka into Missouri where it parallels the Missouri River. This route carries upwards of 80 trains per day of loaded unit coal trains. (A unit train is typically one mile long.) Other significant routes in the region include Kansas City Southern

(KCS) north-south route that connects to Mexico at Laredo, Texas and Norfolk Southern (NS) east-west route that ends in Kansas City. Canadian Pacific now serves Kansas City over the ICE route.

There are currently five intermodal yards in Kansas City. BNSF, KCS and NS each have one facility and UP has two facilities in the region. Along with intermodal activity there are numerous switching yards, classification yards, transload facilities and other rail operations that occur in the region. Kansas City Southern recently moved its intermodal operations to the former Richards Gebaur Airport site, which allows for more opportunities for complimentary development at the CenterPoint Intermodal Center – Kansas City. BNSF is moving its intermodal operations to Logistics Park KC in southern Johnson County, Kan., where significant warehouse space is also under development.

Kansas City International Airport (KCI) is home to the region's air cargo terminal, one of the highestvolume air freight hubs in the six-state region. KCI has plans to expand service capabilities and enhance the attractiveness of aviation facilities associated with manufacturing and industrial operations. An initial phase includes a 800-acre master planned site, the KCI Intermodal Business Centre, which could include more than 5 million square feet of distribution, air cargo and on-ramp, airport-related logistics buildings.



Source: FEMA and MARC Data and Digital Services.

Figure 2.58: Airports and Heliports

Other airports in the region with runways of sufficient length to support large aircraft for air cargo operations include Kansas City's Charles B. Wheeler downtown airport, and New Century Air Center in Johnson County (Source: MARC).

The Kansas City Port Authority operates the area's only public port, located along the Missouri River near the confluence of the Kansas and Missouri Rivers. The port is an intermodal facility, transferring freight between barge, truck, and rail. In addition, the Kansas City region benefits from numerous private ports, which are used by companies shipping commodities that include grains, sand and gravel, fertilizer, chemicals, coal and coke. Currently, river flows are managed by the U.S. Corps of Engineers' Missouri River Master Manual which limits the navigation season to approximately six months each year.

The Kansas City area is also one of the nation's top five trucking centers. Truck volumes in the region are heavily concentrated on interstates and U.S. highways. I-70 in Missouri is the most heavily traveled truck route in the region with some segments exceeding 12,000 trucks per day. The region's national freight corridors are estimated to carry approximately 70 percent of truck vehicle miles traveled (Center for Transportation Analysis), with historic trends indicating a high rate of growth which is likely to continue. In 2019, the regional system handled an estimated 214 million tons of freight with an estimated value of \$298 billion. It is estimated that by 2045, the region will move over 295 million tons valued over \$447 billion.

	Domestic and ((Th	% Change in Tons	
Transportation Mode	2019 2045 forecast		
Truck	149,814	217,184	45%
Rail	34,237	38,089	11.3%
Water	101.8	124.865	22%
Air (include truck-air)	100	231	131%
Multiple Modes and Mail	6,418	11,219	74.8%
Pipeline	23,265	28,832	23.9%
TOTAL	213,940	38.2%	

Table 2.14 Domestic and International Freight in Tons Through the KC Region

Source:

2.7.6 Transit Service

The five transit agencies in the Kansas City region — KCATA, Johnson County Transit, Unified Government Transit, IndeBus and the KC Streetcar — are working together to coordinate services, creating a seamless system from the rider's perspective. In October 2015, the agencies adopted the RideKC brand and create a single transit website for the entire region: RideKC.org. Ridership among these 2five systems totaled 16 million riders in 2018. Since their 2015 system coordination, the agencies have coordinated in other ways as well:

- Created one regional fare (\$1.50) and standard monthly fare pass.
- Made the system free to ride for all qualified paratransit users.
- Expanded the U-Pass program from serving only University of Missouri–Kansas City students to include Metropolitan Community College and Kansas City Art Institute students.

- Made the RideKC system free for veterans.
- Began branding buses and bus stops with the RideKC colors and logo.
- Created a new RideKC system map.
- Initiated a route renumbering plan to make route numbers correspond geographically.

In 2019, the five systems served the public with 553 vehicles. Fixed-route transit is made up of buses, streetcars and other vehicles that follow prescribed routes and stop at regular, scheduled intervals. There are currently 87 bus routes and one streetcar route in the RideKC system. Each fixed-route bus belongs to one of four network categories: Fast and Frequent, 30-Minute, Express, or Other Local.

Currently, there are six existing bus routes and a streetcar line that can be considered Fast and Frequent service. These are the two bus rapid transit (BRT) routes, Main and Troost MAX, the KC Streetcar and the following bus routes:

- 71 (which runs on Prospect and will be partially replaced by the Prospect MAX BRT route that started operating in 2019)
- 39 (which runs on 39th Street)
- 31 (which runs on 31st Street)
- 24 (which runs on Independence Avenue)

(Source: MARC Smart Moves 3.0 Plan)

Two new extensions of the KC Streetcar to be completed in 2025 and 2026 will run from the downtown north to the Missouri River area where the new KC Current Soccer stadium opened along with major new development and south from Union Station to the Country Club Plaza and UMKC. Additional routes are being planned for an east-west corridor in Kansas City, Missouri, and a route north across the Missouri River. A recent federal transportation grant is allowing MARC to work with the Unified Government of Wyandotte County, Kansas, Kansas City, Missouri and Independence, Missouri, to plan for a connected high speed transit corridor from western Wyandotte County through Kansas City's downtown to the center of Independence.

2.7.7 Other Critical Infrastructure

Table 2.15: Critical Facility Types							
Asset (critical facility)	Cass	Clay	Jackson	Platte	Ray	Planning Area	Kansas City
Child Care	49	92	331	29	6	507	231
Nursing Home	10	21	85	12	0	128	72
Public Housing	0	145	574	31	84	834	587
School	47	84	276	37	12	456	193
College & University	1	6	53	7	0	67	48
Hospital	2	6	17	1	1	27	15
Other Health Facility	23	41	153	14	7	238	98
Police	15	16	25	17	9	82	13
Fire	17	26	67	17	7	134	37
PSAP	5	6	15	2	1	29	5
Local (city, county, other) Government	13	12	13	13	6	57	1
Shopping Center	38	117	303	36	8	502	186
Grocery (large, small, farmers)	13	42	142	12	1	210	110
Airport	13	8	10	10	4	45	3
Amtrak	0	0	2	0	0	2	1
Heliport	1	3	15	2	0	21	14
Hotels	8	40	133	39	0	220	136
Apartments	51	192	1727	101	9	2080	1524
Trailer Parks	5	6	10	2	0	23	8
Major League Sports Stadiums	0	0	3	0	0	3	3
Arena or Convention Center	0	0	3	0	0	3	2
Tier II	110	213	584	116	41	1064	451
RMP	6	3	9	4	4	26	8
Waste Water Treatment	16	13	19	16	9	73	7
Total	443	1092	4569	518	209	6831	3753

Source: MARC from city and county governments data.

Table 2.15 demonstrates the significance of major facilities by category and county in the planning area that could be impacted by natural hazards.



Source: MARC compiled from local governments and agencies

Figure 2.59: Public Safety and Administrative Facilities

The planning area has an extensive network of public safety and governmental facilities.



Sources: MO DPS/SEMA, EPA Region VII, MARC

Figure 2.60: Tier II and RMP Facilities



Source: MARC, FEMA, MO DPS/SEMA

Figure 2.61: Chemical and Hazardous Materials



Figure 2.62: Hospitals, Trauma Centers, and Other Health Facilities



Figure 2.63: Child Care Centers



Figure 2.64: Schools and Colleges/Universities



Source: Co-Star, local governments

Figure 2.65: Apartments, Hotels, and Mobile Homes



Source: City and county governments

Figure 2.66: Event Spaces and Historic Sites



Source: City and county governments

Figure 2.67: Agricultural and Food Facilities

Vulnerable Populations



Figure 2.68: Vulnerable Populations in Planning Area by Census Tract Prepared by MARC

Vulnerable populations are those at-risk due to low income, lack of health insurance, minority status, social determinants of health such as housing instability and food insecurity, and those very young children and older adults.



Source: US Census Bureau, ACS 2022 5-year data



The Census Bureau's 2017-2021 American Community Survey found 150,000 disabled residents in the 5county planning area, representing about 12 percent of all persons. Disabled persons have sight, hearing, physical mobility or cognitive challenge abilities. Jackson County had the largest disabled population at over 90,000 persons representing 12.7 percent of that county's population. Cass and Ray counties had the largest proportion of disabled population at 13.7 and 13 percent, respectively.

Source: Kansas City Regional Digital Equity Plan, May 2023 https://www.marc.org/document/kansas-city-regional-digital-equity-plan Adults with less than a high school education are often unemployed or hold a low-paying job. Of those adults 25 years and older in the 5-county planning area, 59,202 did not have a high school education. This ranged from 9.8 percent of the Ray County adult population to a low of 3.3 percent in Platte County.







Figure 2.71: Persons without Health Insurance (Percentage of those in Census Tracts)

There were 116,230 persons in the 5-county planning area without health insurance in 2023. Jackson County had both the largest number and greatest proportion of its population without coverage, 80,615 people and 11.3 percent of all persons.