

Comprehensive Economic Development Strategy Plan

for Metropolitan Kansas City



**Mid-America Regional Council
Community Services Corporation**

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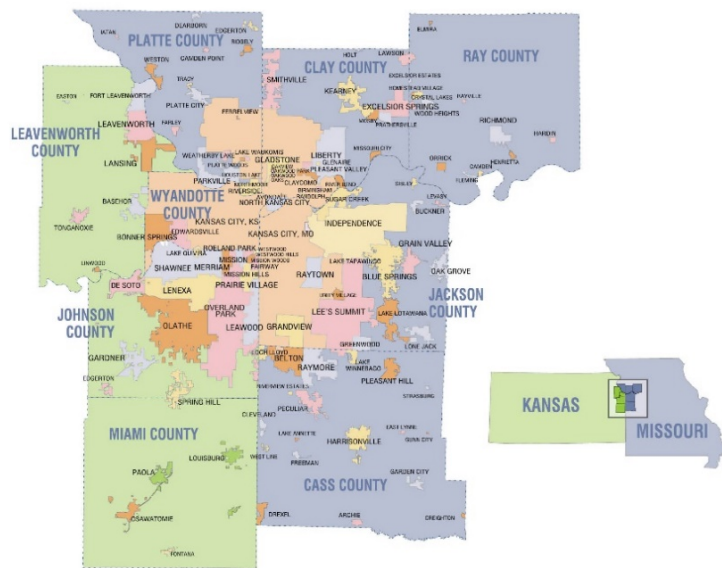
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EXECUTIVE SUMMARY

COMPREHENSIVE ECONOMIC DEVELOPMENT STRATEGY PLAN FOR METROPOLITAN KANSAS CITY

The Comprehensive Economic Development Strategy Plan (CEDS) for Metropolitan Kansas City provides an economic roadmap to help diversify and strengthen the regional economy. This plan provides an analysis of the current regional economy, integrates human and physical capital into economic planning, and offers metrics for evaluating progress.

The Kansas City metropolitan region, as defined for this Comprehensive Economic Development Strategy, is composed of 119 municipalities in nine counties spanning 4,400 square miles in two states. The nine counties — Johnson, Leavenworth, Miami and Wyandotte in Kansas, and Cass, Clay, Jackson, Platte and Ray in Missouri — comprise roughly 94 percent of the population of the 14-county Kansas City Metropolitan Statistical Area (MSA) as defined by the Office of Management and Budget. The Kansas City MSA is the 30th largest metropolitan area in the U.S., with over 2 million people, 1.2 million jobs and 850,000 households.



POLICY FRAMEWORK

REGIONAL VISION

Greater Kansas City is a region of opportunity. Its robust economy, healthy environment and social capacity support the creativity, diversity and resilience of its people, places and communities.

—Adopted by MARC Board 2018

GOALS AND OBJECTIVES

In 2014, the Brookings Institution partnered with the Mid-America Regional Council, the Civic Council of Greater Kansas City, the Kansas City Area Development Council and the Greater Kansas City Chamber to produce *Prosperity at a Crossroads: Targeting Drivers of Economic Growth in Greater Kansas City*. Globally relevant traded clusters, innovation capacity and human capital are the primary drivers of a strong regional economy, generating overall productivity, job growth and income growth. Economic drivers are supported by strong infrastructure systems, sound governance policies and equitable social systems that undergird and enable robust economies. Together, these six highly interrelated drivers and enablers produce inclusive prosperity. Each goal is supported by one or more objectives.

INCREASED CAPACITY FOR INNOVATION AND ENTREPRENEURSHIP

There is the need to support the region's innovation and entrepreneurship ecosystem to accelerate research, innovation, commercial applications, and entrepreneurship in both the start-up and corporate environments. This is consistent with findings from KC Rising.

Innovation is at the heart of improving productivity and competitiveness. Improving the region's innovation and entrepreneurship capacity will enable businesses to move up the value chain and better compete on quality and cost. The support of early stage business requires capital and services to recognize the risk and potential failure that is possible. It is important for business support organizations to provide assistance to these young companies to enable them to succeed and grow in the KC region.

GOAL 1

Build on Greater Kansas City's concentration of high-tech startups across multiple industries, which has increased faster than the national average since 1990, so that by 2020 the KC region will rank in the top third of its 15 peer metros.

- **Increase networked capital** for start-up and early stage business growth.

GOAL 2

Create a **strong pipeline of innovation** by developing flow between research institutions, entrepreneurs and corporations to connect ideas and move them toward commercialization.

- Grow **technology commercialization** efforts.
- **Expand research and development** capabilities.
- Increase **high-tech industry employment and firm innovation**.

GOAL 3

Improve greater Kansas City's performance rate in **overall business creation**. Create a culture that supports risk and offers intensive support to enable early stage companies to persist in their efforts.

- Coordinate efforts that maximize the availability, visibility use and effectiveness of **entrepreneurial support resources**

GOAL 4

Increase awareness of the Kansas City region as a **hub for entrepreneurship**

- Position Kansas City as a **hub for entrepreneurial finance** in a broad region from Dallas to Minneapolis and from Chicago to Denver

GOAL 5

Build entrepreneurial talent and increase jobs in entrepreneurial firms

- **Increase high-tech industry firm formation and employment.**

GOAL 6

Encourage corporate engagement in small business development

- **Increase corporate involvement** in the entrepreneurial ecosystem.

STRENGTHEN REGIONAL ECONOMY BY GROWING TRADED SECTORS, ATTRACT NEW BUSINESSES AND HELP EXISTING BUSINESSES THRIVE

Regional and local economic development organizations and KC Rising have identified the need to grow the Kansas City region's export capacity and increase companies' global competitiveness for products and services. Increased domestic and global trade impacts how KC performs against peer cities on growth in jobs, productivity and wages. Most crucial is a regional business plan that factors in future changes in the global economic landscape and disruptive technologies.

GOAL 1

Increase domestic and global exports as a share of Greater Kansas City's total economy.

- Strengthen **export and international trade activity** within the region through **Go Global** and Enterprise KC, and increase exports as a percentage of GDP.

GOAL 2

Influence growth of Greater Kansas City's diverse set of existing traded sectors by developing more robust industry clusters, or concentration of assets.

- Through **KC Global Design**, position the KC region to be a global center of excellence for top talent in engineering, architecture, and technology.
- Through **Bio-Nexus KC** (the KC Life Sciences Institute), position the region to capitalize on economic growth opportunities for life sciences research, animal health, data analytics and Collaborate2Cure.
- Through KC Smart Port, continue to support growth in the **logistics** industry.
- Through the KC Animal Health Corridor, continue to support growth in the **animal health** industry.
- Continue to support growth in the **manufacturing sector**, particularly in those areas where the region has a competitive advantage (vehicle and food manufacturing) and areas where technology offers opportunities to attract companies to locate and grow in the region.
- Increase workforce **competencies** in STEM occupations.

GOAL 3

Identify **industry clusters** with the greatest opportunities for future growth.

- Maintain the **Regional Workforce Investment Network** to conduct economic research in support of economic development.
- Prepare **Talent-to-Industry Exchange** processes on growing traded sectors, engaging private employers and education.

CREATE AN EFFECTIVE WORKFORCE TO MEET THE NEEDS OF BUSINESS AND CREATE ECONOMIC OPPORTUNITY FOR RESIDENTS

Ensure that Greater Kansas City can develop, attract and retain the talent needed to increase the region's pace of innovation and sustain inclusive growth. The increasing diversity of Greater Kansas City's workforce poses opportunities to inform and create non-traditional approaches to developing the human capital necessary to meet global demands.

GOAL 1

Create a region that **develops an educated and skilled workforce**.

- Develop **effective training programs for high growth occupation areas**: information technology, healthcare, manufacturing careers, distribution and engineering.
- Expand **experiential learning** opportunities.
- Increase the **percentage of students with market-value assets, including college credit, work-based and entrepreneurial experiences, postsecondary credentials and degrees** in the metro area achieved by KC area youth and adults.

GOAL 2

Create a region that **attracts highly qualified individuals**.

- Promote Kansas City as a **vibrant place** to live with high quality careers.

GOAL 3

Create a region that is able to **retain highly qualified individuals**.

Objective:

- **Integrate new residents into the workforce** and ensure that employers and communities are welcoming and culturally competent.

INVEST IN INFRASTRUCTURE TO SUPPORT ECONOMIC GROWTH, CREATE VIBRANT PLACES AND INCREASE ACCESS TO OPPORTUNITY

GOAL 1

Create a region that increases economic opportunity by improving access to jobs.

- Improve **public transportation** for residents to **access jobs** in employment hubs.

GOAL 2

Create a region that supports a **quality infrastructure**.

- Create and maintain a robust **multimodal transportation system** to serve the region's economy and make Kansas City more attractive to potential talent.
- Support **investments in quality infrastructure** for business development and expansion.
- **Invest in technology** to support economic activity at key sites and buildings to increase attractiveness to companies.
- **Use technology to foster innovative education** and workforce development.
- Integrate **advanced technologies** into the region's transportation system.

- Invest in water and wastewater systems to support reinvestment in urban core areas as well as new suburban areas.
- Conserve, protect and restore **green infrastructure** throughout the region to protect air and water quality, protect wildlife habitat, reduce flooding, protect public health, and facilitate active transportation.

GOAL 3

Create a region that supports **greater housing choices** throughout the region and focuses **development along key corridors and older built-up neighborhoods**.

- Protect **the natural environment** and utilize **existing infrastructure**.
- Support the development of a **variety of housing options**, both owner and renter, to meet the needs of a diverse population.
- Promote **development along key transportation corridors and at key activity centers**.
- Support **targeted investment** in disadvantaged areas that offer the opportunity for business development and an increase in household wealth.

STRENGTHS, WEAKNESSES, OPPORTUNITIES AND BARRIERS

Strengths

- Diverse economy.
- Strong regional and local economic development organizations, including the coordinated regional marketing led by the Kansas City Area Development Council
- Adequate water, wastewater, broadband, natural gas and other resources to support development and business operations.
- Good network of roads and highways to support freight and commuter transportation.
- Number of public and non-profit higher education institutions in and around the metro area.
- Strong set of programs supporting entrepreneurship (KCSourceLink, Kauffman Foundation, Bioscience Kansas).
- Modest, yet consistent population growth.
- Relatively low cost of housing (although costs are increasing). Diversity of housing choices across the region (although limited in some communities).

Opportunities

- Business sector involvement through KC Rising.

- Strong industry clusters around life sciences, engineering and architecture, animal health, motor vehicle and food production manufacturing, and other fields.
- With the growth of new pools of capital for entrepreneurs, KC could be positioned as a hub for entrepreneurial financing in the region between Minneapolis and Dallas, Denver and Chicago.
- Kansas City has a number of large corporations from a variety of industries. If an infrastructure for engagement between mid-large size corporations and entrepreneurial firms were created, forward thinking industry knowledge that exists within those corporations could be shared with entrepreneurs and new innovations could be developed.
- KC Scholars and KC Degrees programs provide information and financial resources to assist youth and adults complete post-secondary attainment.
- School districts and intermediaries establishing career centers for high school students (PREP-KC, KC STEM Alliance, Blue Valley CAPS, Northland CAPS, KC Tech Academy, Northland Innovation Center, Olathe 21st Century Academies, Independence Wall-to-Wall Academies, KC Kansas Diploma+, Excelsior Springs Reimagine High School, Summit Tech Academy, Missouri Innovation Campus and Liberty School District Innovation).
- Over 50 census tracts in the KC region are designated as Qualified Opportunity Zones.

Weaknesses

- The region has few industry clusters, particularly those in traded sectors, with a high location quotient, and a competitive advantage over peer metros.
- Low state support for education — pre-K, K-12 and higher education.
- Limited federal funds to support education, particularly for disadvantaged students.
- Limited tourism to support economic activity.
- Inadequate capital for business start-up and small business growth.
- Racial and ethnic disparities, economic and racial segregation.
- Growing divide among income groups, and growth in suburban poverty.
- Large number of adults without necessary skills to fill in-demand available jobs.
- Middle age workers with at least a bachelor's degree and skills are leaving the region.
- Losing or downsizing of large companies (Sprint, State Street, Harley-Davidson, Proctor and Gamble).
- Low density dispersed development patterns make economic development and access to jobs difficult, while degrading the region's natural resources.
- Racial disparities exist in education, income, housing and health.
- Business engagement inefficient in career technical education.
- Lack of low cost housing and affordable housing near suburban job centers.
- Foreign students graduating from area postsecondary education institutions and available to work tend to leave the region for the coasts to secure employment.

- Vehicle miles traveled are increasing, leading to increased emissions that harm air quality.

Barriers

- Numerous political boundaries, including a state line, often complicate efforts at growing the regional economy and creating a skilled workforce.
- Limitations on use of Pell grants and availability of other resources to support training for disadvantaged youth and adults.
- Difficulty attracting immigrants who may be able to study in area higher education institutions and remain in the region filling technical jobs.

PLANNING PROCESS

The Mid-America Regional Council relied on the Regional Workforce Intelligence Network (RWIN) to serve as the CEDS Advisory Committee. RWIN is composed of representatives from local and regional economic development and business organizations, workforce development agencies, and local governments. RWIN formed a small working group to review the 2015 plan and recommend updates to the region's economic and labor market analysis that would be important to preparing the CEDS. The RWIN work group also assisted in the SWOT analysis and in drafting the policy framework of goals, objectives, strategies and metrics. The draft report was presented to the full RWIN at their October 2018 meeting. In addition, the draft report was shared in November 2018 with the Sustainable Places Policy Committee, a policy-level committee composed of diverse community interests advising the MARC Board on land use, housing, economic development and other sustainability plans and policies. A draft plan was disseminated to a broad group of stakeholders in December 2018 and posted on the MARC website with a story on the front page. Feedback was incorporated into the final draft plan. The MARC Board reviewed the final draft and adopted the CEDS plan in January 2019.

STRATEGIC PROJECTS, PROGRAMS AND ACTIVITIES

The metro area's numerous regional and local economic development and workforce development organizations have created strategic partnerships to increase the region's global economic competitiveness, attract and develop the human capital to enable business growth and economic prosperity. Local communities are supporting investments in the infrastructure needed to support economic growth. These projects, programs and activities align with the goals and objectives outlined in the plan. The plan provides metrics to measure the region's progress over the next five years. Creating a region with a diversified economy tied to industry sectors that create wealth through exports and innovation, and an educated and talented workforce will ensure the region's economic resiliency over time.

POLICY FRAMEWORK

REGIONAL VISION

Greater Kansas City is a region of opportunity. Its robust economy, healthy environment and social capacity support the creativity, diversity and resilience of its people, places and communities.

Formed at the confluence of rivers, trails and trains on the border of two states, Greater Kansas City is a place of interconnection, where people of all backgrounds are welcome and where commerce and ideas flow as freely as the rivers and streams that run through and define it. Our people thrive here, in safe, walkable and well-maintained neighborhoods. We have abundant opportunities for education, and work in fulfilling jobs at businesses that can compete with any in the world. We enjoy, protect and preserve our region’s natural beauty. We care for our neighbors and our communities. We lead by example. Our region has the strength to not only bounce back from adversity, but bounce forward, confidently, into the future.

—Adopted by MARC Board 2018

GOALS, OBJECTIVES AND STRATEGIES

In 2014, the Brookings Institution partnered with the Mid-America Regional Council, the Civic Council of Greater Kansas City, the Kansas City Area Development Council and the Greater Kansas City Chamber to produce *Prosperity at a Crossroads: Targeting Drivers of Economic Growth in Greater Kansas City*. Globally relevant traded clusters, innovation capacity and human capital are the primary drivers of a strong regional economy, generating overall productivity, job growth and income growth. Economic drivers are supported by strong infrastructure systems, sound governance policies and equitable social systems that undergird and enable robust economies. Together, these six highly interrelated drivers and enablers produce inclusive prosperity.

INCREASED CAPACITY FOR INNOVATION AND ENTREPRENEURSHIP

There is the need to support the region’s innovation and entrepreneurship ecosystem to accelerate research, innovation, commercial applications, and entrepreneurship in both the start-up and corporate environments. This is consistent with findings from KC Rising.

Innovation is at the heart of improving productivity and competitiveness. Improving the region’s innovation and entrepreneurship capacity will enable businesses to move up the value

chain and better compete on quality and cost. The support of early stage business requires capital and services to recognize the risk and potential failure that is possible. It is important for business support organizations to provide assistance to these young companies to enable them to succeed and grow in the KC region.

GOAL 1

Build on Greater Kansas City’s concentration of high-tech startups across multiple industries, which has increased faster than the national average since 1990, so that by 2020 the KC region will rank in the top third of its 15 peer metros.

Objective	2019-2022 Strategies
<p>Increase networked capital for start-up and early stage business growth</p>	<p>Continue to support the full spectrum of funding needed for early-stage company development and growth</p> <ul style="list-style-type: none"> • Fund Digital Sandbox KC • Fully fund the Fountain Innovation Fund at the Enterprise Center in Johnson County to fill a critical gap in the capital continuum • Continue to grow the number and value of funds in the region (i.e. KCRise Fund, Flyover, etc.) to provide capital for early stage companies. • Support KCIinvestED to educate investors and raise visibility to early stage companies needing capital and build a program that educates potential early-stage board members
<p>Metrics</p>	<p>Increase in the amount of capital available for start-up and early stage business growth</p> <p>Value of investment in regional companies is increasing</p>

GOAL 2

Create a **strong pipeline of innovation** by developing flow between research institutions, entrepreneurs and corporations to connect ideas and move them toward commercialization.

Objective	2019-2022 Strategies
<p>Grow technology commercialization efforts</p>	<ul style="list-style-type: none"> • Support commercialization efforts at local universities and research centers. • Promote the Whiteboard 2 Boardroom program, Mid-America Manufacturing Technology Center and other

	<p>KC-area initiatives to connect entrepreneurs to early stage business opportunities.</p> <ul style="list-style-type: none"> • Support small and emerging private companies in targeted industries to move concepts to commercial application
Expand research and development capabilities.	<ul style="list-style-type: none"> • Connect companies to R&D assistance at local universities and colleges. • Attract R&D investment to the region. • Support the KC Innovation District.
Increase high-tech industry employment and firm innovation	<ul style="list-style-type: none"> • Support technology accelerator programs. • Support and expand Launch KC to become regional in its investment of promising start-up companies. • Support Digital Sandbox and other initiatives to enable high-tech start-ups to become established and grow in the region. • Support career engagement programs such as apprenticeships and internships.
Metrics	<p>Change in number of patents issued to area companies</p> <p>Increase in the number of small business start-ups</p>

GOAL 3

Improve greater Kansas City’s performance rate in overall business creation. Create a culture that supports risk and offers intensive support to enable early stage companies to persist in their efforts.

Objective	2019-2022 Strategies
<p>Coordinate efforts that maximize the availability, visibility use and effectiveness of entrepreneurial support resources</p>	<ul style="list-style-type: none"> • Continue the existing triage center through KCSOURCELINK that catalogues resources and serves as a central hub and entry point for the regional entrepreneurial ecosystem • Connect entrepreneurs to existing resources in the community, such as the UMKC Innovation Center, UMKC Small Business & Technology Development Center and Johnson County Community College • Encourage inclusive entrepreneurship with continued investment in women and minority owned businesses.
Metrics	<ul style="list-style-type: none"> • Increase in number of new business start-ups • Increase in women and minority-owned businesses • Ewing Marion Kauffman Foundation Entrepreneur Index

GOAL 4

Increase awareness of the Kansas City region as a hub for entrepreneurship

<i>Objective</i>	<i>2019-2022 Strategies</i>
Position Kansas City as a hub for entrepreneurial finance in a broad region from Dallas to Minneapolis and from Chicago to Denver	<ul style="list-style-type: none">• Support InvestMidwest, Animal Health Forum and other events that bring investors to Kansas City
Metrics	<ul style="list-style-type: none">• Increase in the number of outside investors

GOAL 5

Build entrepreneurial talent and increase jobs in entrepreneurial firms

<i>Objective</i>	<i>2019-2022 Strategies</i>
Increase high-tech industry firm formation and employment	<ul style="list-style-type: none">• Support Digital Sandbox and other initiatives to enable high-tech start-ups to become established and grow in the region.• Support technology accelerator programs.• Support and expand Launch KC to become regional in its investment of promising start-up companies.• Support career engagement programs such as apprenticeships and internships.• Support educational programs that provide entrepreneurship training at local elementary, secondary and higher education institutions
Metrics	<ul style="list-style-type: none">• Change in high tech industry employment

GOAL 6

Encourage corporate engagement in small business development

<i>Objective</i>	<i>2019-2022 Strategies</i>
Increase corporate involvement in the entrepreneurial ecosystem	<ul style="list-style-type: none">• Improve buy local commitment at government and corporate levels as demonstrated by direct contracting with small companies• Increase corporate involvement in the entrepreneurial ecosystem as demonstrated by joint product development, \$5-10 million in investment, \$2 million increased revenue of entrepreneurial firms from corporate customers and active C-level mentors.

Metrics	<ul style="list-style-type: none"> • Level of corporate investment • Number of corporate mentors
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STRENGTHEN THE REGIONAL ECONOMY BY GROWING TRADED SECTORS, ATTRACTING NEW BUSINESSES AND HELPING EXISTING BUSINESSES THRIVE

Regional and local economic development organizations and KC Rising have identified the need to grow the Kansas City region’s export capacity and increase companies’ global competitiveness for products and services. Increased domestic and global trade impacts how KC performs against peer cities on growth in jobs, productivity and wages. Most crucial is a regional business plan that factors in future changes in the global economic landscape and disruptive technologies.

GOAL 1

Increase domestic and global exports as a share of Greater Kansas City’s total economy.

Objective	2019-2022 Strategies
Strengthen export and international trade activity within the region through Go Global and Enterprise KC, and increase exports as a percentage of GDP.	<ul style="list-style-type: none"> • Continue to strengthen the Foreign Trade Zone Program and programs at KC SmartPort and the World Trade Center. • Provide technical assistance to help companies enter foreign markets (concierge service). • Support Enterprise KC efforts to help firms with strong potential to grow and to reposition companies such as Sprint to increase exports and number of patents advanced to commercialization.
Metrics	Increase in employment of major exporting industries Increase in total GDP of exporting industries Increase in average value per job in major exporting industries

GOAL 2

Influence growth of Greater Kansas City’s diverse set of existing traded sectors by developing more robust industry clusters, or concentration of assets.

Objective	2019-2022 Strategies
Through KC Global Design , position the KC region to be a	AWARENESS

<p>global center of excellence for top talent in engineering, architecture, and technology.</p>	<ul style="list-style-type: none"> ● Leverage the marketing and communications teams within the KC Global Design companies as advocates, ambassadors and agents for dissemination of the brand through controlled, earned and shared media. <ul style="list-style-type: none"> ○ Campaign featuring regional expertise and innovation to disseminate stories to media both regionally and nationally. ○ Raise regional awareness, build support and make connections within the industry. <p>TALENT</p> <ul style="list-style-type: none"> ● Encourage area high school students to enroll in and complete programs at area universities to support meeting the future workforce needs in these industry sectors. ● Market the Kansas City area and its employers to regional university students, targeted national universities and experienced professionals (5-10 years of experience). ● Strengthen efforts to attract and retain a diverse workforce. ● Encourage young people to consider professions in the KC Global Design industry. <p>INNOVATION</p> <ul style="list-style-type: none"> ● Support strategies to position the KC region as an innovation center with a focus on engineering, architecture and design technology. ● Create model plan for cities to adapt to climate change.
<p>Through Bio-Nexus KC (the KC Life Sciences Institute), position the region to capitalize on economic growth opportunities for life sciences research, animal health, data analytics and Collaborate2Cure.</p>	<p>TALENT</p> <ul style="list-style-type: none"> ● Define the job spectrum, skill sets and education needs for jobs in bioinformatics and other high-demand jobs in the life sciences sectors. ● Expand educators’ understanding of the role of and opportunities to be engaged in interdisciplinary education and engage teachers from Kindergarten through postsecondary education to map career pathways.

	<ul style="list-style-type: none"> • Create industry-specific, stackable career credentials for strong career pathways, continuous learning opportunities and flexible, rapid response to employer needs. • Expand experiential learning opportunities and teacher externships. <p>INNOVATION</p> <ul style="list-style-type: none"> • Expand public-private partnerships between companies and universities to promote innovation and commercialization of research.
<p>Through KC Smart Port, continue to support growth in the logistics industry.</p>	<ul style="list-style-type: none"> • Promote the Foreign Trade Zone Program and the region’s four Intermodal Centers as opportunities for increased economic activity. • Promote the workforce development opportunities at the high school, community college and university levels to create the talent to fill growing jobs in the logistics industry.
<p>Through the KC Animal Health Corridor, continue to support growth in the animal health industry.</p>	<ul style="list-style-type: none"> • Advance innovation within the animal health industry by providing coaching and industry market information to companies to support them in connecting with investors and other companies • In coordination with industry partners, host targeted venture capital groups in Kansas City for educational discussions about opportunities in the animal health sector • Host small roundtable events and discussions with tech transfer offices in the Midwest to provide guidance on what technologies are of interest to industry partners
<p>Continue to support growth in the manufacturing sector, particularly in those areas where the region has a competitive advantage (vehicle and food manufacturing) and areas where technology offers opportunities to attract companies to locate and grow in the region.</p>	<ul style="list-style-type: none"> • Support skilled trades training to ensure that the region’s workforce has qualified graduates to meet the needs of existing and potential manufacturing employers. • Promote the region’s competitive advantage for vehicle and food manufacturing and other manufacturing fields to attract new businesses to the region. • Educate students and their families about job opportunities in manufacturing, including high tech skilled positions and career pathways

<p>Increase workforce competencies in STEM occupations.</p>	<ul style="list-style-type: none"> • Integrate common sector competencies into the K-12 classroom through simulation, collaboration, exhibition and reflection. • Integrate environmental education within STEM curriculum to enhance educational attainment, community building and environmental quality. • Integrate early workforce learning through career centers, community college partnerships, externships, internships and registered apprenticeships. • KC STEM Alliance — Support a strong STEM ecosystem. • Connect students to learning across all parts of the community: <ul style="list-style-type: none"> ○ Align in-school and out-of-school experiences. ○ Nurture STEM Identity. ○ Address barriers to improve access for all. ○ Engage young people in real world problem solving and introduce them to STEM mentors and careers. ○ Help parents support student success. ○ Match STEM learning pathways with STEM workforce needs
<p>Metrics</p>	<p>Increase in the number of engineering and architecture jobs</p> <p>Increase in the number of life sciences and animal health jobs</p> <p>Increase in the number of manufacturing jobs, particularly those requiring technology skills</p> <p>Increase in STEM occupations location quotients</p>

GOAL 3

Identify industry clusters with the greatest opportunities for future growth.

Objective	2019-2022 Strategies
<p>Maintain the Regional Workforce Investment Network to conduct economic research in support of economic development.</p>	<ul style="list-style-type: none"> • Convene the RWIN on a quarterly basis to review information pertinent to the identification of promising industry clusters. • Maintain the www.kcworkforce.com and www.kceconomy.com websites to share information.

Prepare Talent-to-Industry Exchange processes on growing traded sectors, engaging private employers and education.	<ul style="list-style-type: none"> • Conduct a Talent-to-Industry Exchange on the construction and skilled trades in 2018-2019. • Conduct a Talent-to-Industry Exchange on advanced manufacturing and information technology in 2019. • Identify future TIE sectors for industry and educator engagement, including a look at industries such as the arts (including performing and digital), supply chain management and health care.
Metrics	Increase participation in RWIN Talent-to-Industry Exchanges completed with Action Plan implementation

CREATE AN EFFECTIVE WORKFORCE TO MEET THE NEEDS OF BUSINESS AND CREATE ECONOMIC OPPORTUNITY FOR RESIDENTS

Ensure that Greater Kansas City can develop, attract and retain the talent needed to increase the region’s pace of innovation and sustain inclusive growth. The increasing diversity of Greater Kansas City’s workforce poses opportunities to inform and create non-traditional approaches to developing the human capital necessary to meet global demands.

GOAL 1

Create a region that develops an educated and skilled workforce.

Objective	2019-2022 Strategies
Develop effective training programs for high growth occupation areas: information technology, healthcare, manufacturing careers, distribution and engineering.	<ul style="list-style-type: none"> • Continue to support GradForce KC and the annual postsecondary education asset inventory to identify available programs and gaps to be addressed in postsecondary offerings. • Conduct Talent-to-Industry Exchanges to identify what skills area employers need in targeted sectors. Bring employers and educators together to work on changes to educational offerings to address skill gaps. • Develop Registered Department of Labor Apprenticeship programs to enable students to learn required skills while on the job and being paid. • Support local workforce development efforts, such as those in Wyandotte County and Independence (Independence Works 2025) to connect residents to training and employment opportunities.

<p>Expand experiential learning opportunities.</p>	<ul style="list-style-type: none"> • Establish and support a regional broker to identify and offer experiential learning opportunities listed by area businesses, including tours, externships, internships and registered apprenticeships. • Expand opportunities for experience-based internships with employers through HIRE KC and other programs. Through the HIRE KC Social Innovation Center, use a common database to connect students to industry and internships. • Increase opportunities for educators to work inside business through externships that increase their knowledge that can be brought back to the classroom. • Expand peer and mentor professional networks.
<p>Increase the percentage of students with market-value assets, including college credit, work-based and entrepreneurial experiences, postsecondary credentials and degrees in the metro area achieved by KC area youth and adults.</p>	<ul style="list-style-type: none"> • Expand KC Degrees to serve more adults who aspire to complete a college degree or certification. • Provide scholarships and college completion support to traditional students and adult learners and encourage families to start college savings plans through KC Scholars. • Design and implement a scholarship clearinghouse to help students identify and secure financial support to enroll and complete a postsecondary experience. • Support the Learn Forward initiative to work with area school districts to adopt innovative approaches to better align high school course sequences with workforce development and to enable students to earn market-value assets prior to graduation. • Work with the community to address transportation, child care, work schedule and other challenges that prevent students from accessing experiential learning and college course opportunities. • Create stronger entry points for students to gain experience and begin their career pathway steps.
<p>Metrics</p>	<p>Increase the number of experiential learning opportunities through Activate KC</p> <p>Increase the Percent of BA degrees earned in STEM fields</p> <p>Increase in Talent availability of STEM talent – hiring trends</p> <p>Ratio of black to white non-Hispanic median earnings (inclusive prosperity)</p>

	Ratio of black to white non-Hispanic adults with BA degree
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GOAL 2

Create a region that attracts highly qualified individuals.

Objective	2019-2022 Strategies
Promote Kansas City as a vibrant place to live with high quality careers.	<ul style="list-style-type: none"> • Encourage use of KCADC’s Talent Toolkit. • TEAM KC/MY KC – Use common branding and a digital platform to sell KC to both those within the region to stay and to attract young professionals to KC. • Broaden the program’s reach to include more employers that offer career planning as a strategy to keep highly qualified workers in the metro area. • Promote the Back to KC initiative to encourage workers who left the region in the past 10 years to return. • Support local workforce efforts to train disadvantaged residents and provide jobs that offer career pathways.
Metrics	Increase in number of participants in TEAM KC/MY KC programs Increase use of the KCADC Talent Toolkit to attract talent to the region

GOAL 3

Create a region that is able to retain highly qualified individuals.

Objective	2019-2022 Strategies
Integrate new residents into the workforce and ensure that employers and communities are welcoming and culturally competent.	<ul style="list-style-type: none">• Promote Gateways KC to assist local communities, higher education institutions and employers to better assist new residents to enroll and complete postsecondary degrees or certifications and remain in the region to fill in-demand jobs.• Expand efforts in the region through engagement and support, including but not limited to the young professionals of color initiative, justice involved individuals and veterans.• Work with employers to consider hiring local talent that may not be in the top third of their graduating class. Many employers limit their review to graduates in the top third, eliminating many qualified and promising individuals from becoming employed in hard-to-fill jobs.• Encourage greater collaboration among organizations that serve nontraditional workforce clients, including immigrants and ex-offenders to help them enter the workforce and contribute to the area economy.
Metrics	Increase in number of foreign-born adults in the workforce Increase in number of foreign-born adults with post-secondary degrees or certificates Positive net migration of young adults with Bachelors degree Positive net migration of non-white young adults

INVEST IN INFRASTRUCTURE TO SUPPORT ECONOMIC GROWTH, CREATE VIBRANT PLACES AND INCREASE ACCESS TO OPPORTUNITY

GOAL 1

Create a region that increases economic opportunity by improving access to jobs.

Objective	2019-2022 Strategies
<p>Improve public transportation for residents to access jobs in employment hubs.</p>	<ul style="list-style-type: none"> • Invest in public transportation to increase access to jobs, including traditional transit services, the development of mobility hubs, and mobility services between hubs. • Offer more specialized transit services to connect people to job centers, including Transportation Management Associations (TMAs), • Support public-private partnerships between transit operators and employers to offer transportation in areas not well-served by fixed route transit.
<p>Metrics</p>	<p>Increase in trips by public transit to employment centers</p> <p>Increase in level of private sector investment along key transit corridors and around mobility hubs</p>

GOAL 2

Create a region that supports a quality infrastructure.

Objectives	2019 - 2022 Strategies
<p>Create and maintain a robust multimodal transportation system to serve the region’s economy and make Kansas City more attractive to potential talent.</p>	<ul style="list-style-type: none"> • Support expansion of the KC Streetcar system, Bus Rapid Transit and other transit services. • Support investments in active transportation, including on-road and multiuse trails and complete streets. Address transportation and environmental goals at the same time. • Support investments to preserve and maintain the function of existing bridges, streets and highways; public transportation systems; active transportation; airports; and freight systems. • Align the land use and transportation goals and use of federal transportation funds with regional economic development strategies.

<p>Support investments in quality infrastructure for business development and expansion.</p>	<ul style="list-style-type: none"> • Plan a transportation system for the region that meets the needs for efficient freight movement, connects workers to jobs and plans for future technologies. • Assist local governments to secure grants and other resources to update their water, sewer, transportation and other infrastructure to support the sustainability of their community.
<p>Invest in technology to support economic activity at key sites and buildings to increase attractiveness to companies.</p>	<ul style="list-style-type: none"> • Identify industries in need of high-speed internet connectivity in next five years to plan infrastructure development. • Support high speed broadband investments in residential areas to enable residents to connect to education and work remotely
<p>Use technology to foster innovative education and workforce development.</p>	<ul style="list-style-type: none"> • Identify ways educators and the public workforce system can connect job seekers to jobs and learning opportunities.
<p>Integrate advanced technologies into the region's transportation system.</p>	<ul style="list-style-type: none"> • Support the region's implementation of and investment in Smart Technologies to increase mobility and create economic opportunities. • Implement innovative solutions to address regional transportation challenges through management of big data.
<p>Invest in water and wastewater systems to support reinvestment in urban core areas as well as new suburban areas.</p>	<ul style="list-style-type: none"> • Encourage Kansas City, Missouri and Unified Government of Wyandotte County/KCK to identify green infrastructure and other strategies to address the combined sewer system problem while keeping water and sewer rates affordable for residents. • Encourage newer suburban development an orderly pattern that maximizes investments in water and sewer system improvements.
<p>Conserve, protect and restore green infrastructure throughout the region to protect air and water quality, protect wildlife habitat, reduce flooding, protect public health, and facilitate active transportation.</p>	<ul style="list-style-type: none"> • Support work around new stormwater standards, urban forestry, stream setback and other strategies that support green infrastructure.
<p>Metrics</p>	<p>Increase in investment in public infrastructure to support economic growth</p>

	Increase in investment in green infrastructure to support reinvestment
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GOAL 3

Create a region that supports greater housing choices throughout the region and focuses development along key corridors and older built-up neighborhoods.

Objectives	2019 - 2022 Strategies
Protect the natural environment and utilize existing infrastructure .	<ul style="list-style-type: none"> • Foster mixed-use and high-density development. • Repurpose the abundant number of vacant, blighted and brownfield properties in the region’s urban core neighborhoods. • Plan for a changing climate and ensure the resiliency of existing built environments and new development that is designed to reduce greenhouse gas emissions, minimize risk and bounce forward from disaster events. • Implement a regional climate resiliency strategy.
Support the development of a variety of housing options , both owner and renter, to meet the needs of a diverse population.	<ul style="list-style-type: none"> • Encourage the development of mixed income housing in and around employment centers to increase access to jobs. • Support programs that increase homeownership, particularly for first time homebuyers, to stabilize neighborhoods and help families locate close to employment and education opportunities for their children. • Support investments to enable greater energy efficiency, conservation, and use of renewables in housing development.
Promote development along key transportation corridors and at key activity centers .	<ul style="list-style-type: none"> • Reinvest in public infrastructure in older communities to retain and attract businesses in those areas. • Encourage local communities to enact ordinances and target use of incentives to focus private investment in priority locations. Encourage incentive policies that are both comprehensive and transparent. • Support development in areas where existing transportation assets can connect residents to jobs and other services.
Support targeted investment in disadvantaged areas that offer the opportunity for business development and an increase in household wealth.	<ul style="list-style-type: none"> • Support investment in the region’s Qualified Opportunity Zones, as designated by the U.S. Department of Commerce.

Metrics	Increase in supply of affordable housing Increase in mix of housing by type and price around employment centers New investment in Qualified Opportunity Zones
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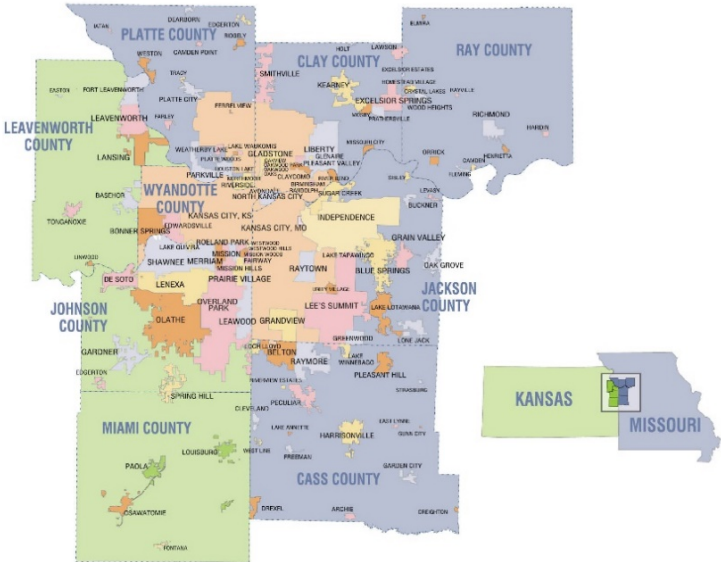
ECONOMIC ANALYSIS

INTRODUCTION

The Comprehensive Economic Development Strategy Plan (CEDS) for Metropolitan Kansas City provides an economic roadmap to help diversify and strengthen the regional economy. This plan provides an analysis of the current regional economy, integrates human and physical capital into economic planning, and offers useful benchmarks for evaluating progress.

The Mid-America Regional Council Community Services Corporation, a 501(c)3 subsidiary of the Mid-America Regional Council, prepared this CEDS plan on behalf of the 119 cities and nine counties in the bistate Kansas City region. MARC serves as the association of city and county governments and the metropolitan planning organization for the Kansas City area. MARC provides a forum for local jurisdictions and diverse community interests to work together to address the region’s problems and identify opportunities for cooperative solutions.

The Kansas City metropolitan region, as defined for this Comprehensive Economic Development Strategy, is composed of 119 municipalities in nine counties spanning 4,400 square miles in two states. The nine counties — Johnson, Leavenworth, Miami and Wyandotte in Kansas, and Cass, Clay, Jackson, Platte and Ray in Missouri — comprise roughly 94 percent of the population of the 14-county Kansas City Metropolitan Statistical Area (MSA) as defined by the Office of Management and Budget. The Kansas City MSA is the 30th largest metropolitan area in the U.S., with over 2 million people, 1.2 million jobs and 850,000 households.



POPULATION AND INCOME TRENDS

The region continues to experience moderate growth in all but one rural county.

The population of the nine-county Kansas City region grew by almost 18 percent from 2000 to 2017 — from 1,730,628 to 2,040,557. Growth is expected to continue, reaching 2.5 million by 2040.

Population growth rates vary widely by county. Jackson County is the region’s largest county in terms of population, followed by Johnson, Clay and Wyandotte counties. Johnson County has grown the most in recent years, though Platte and Clay counties’ growth matches it in percentage terms, and Cass County is growing almost as fast.

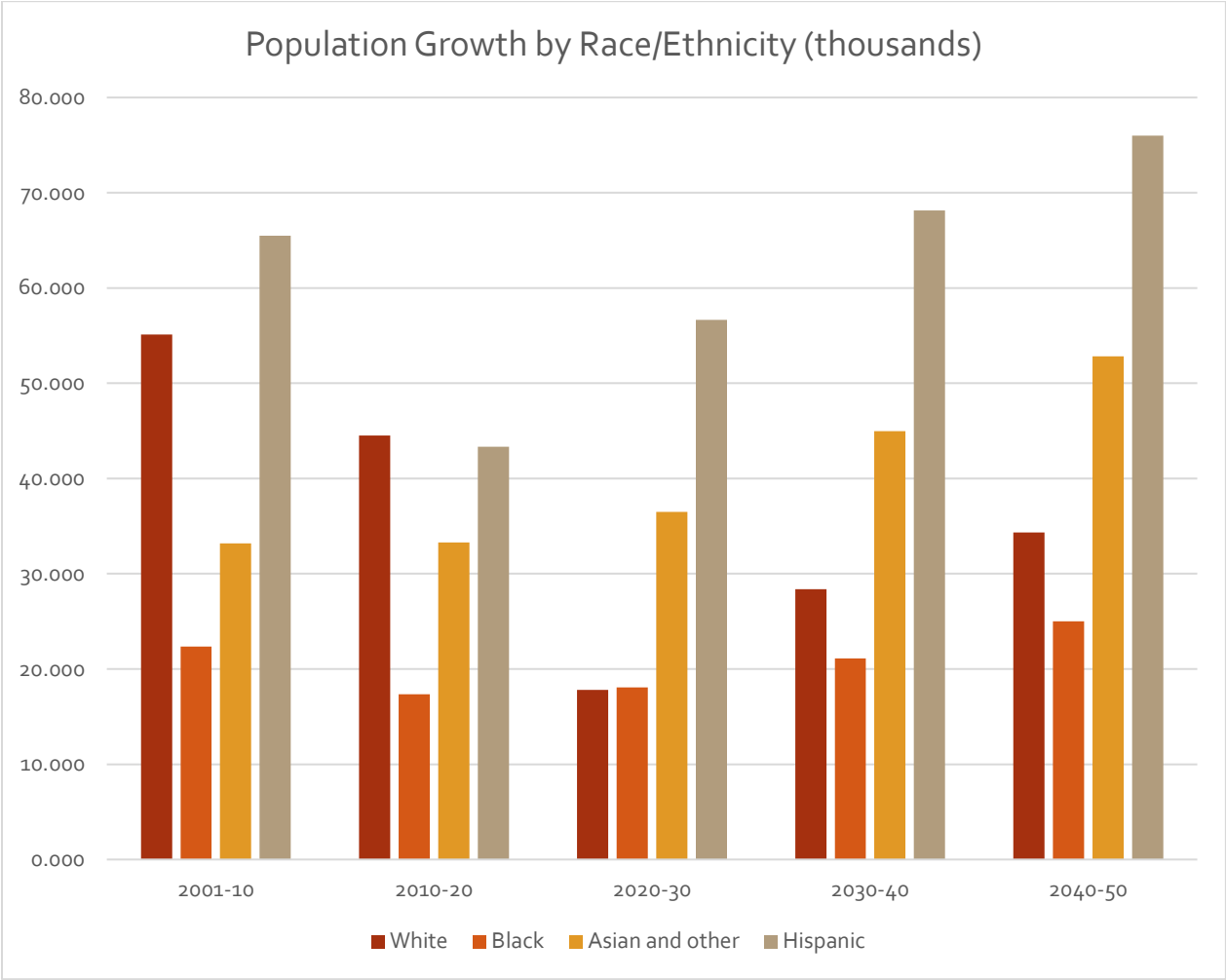
Wyandotte and Jackson counties, which contain the region’s oldest housing and industrial areas, grew steadily until 1970, and then experienced a period of decline. Jackson County’s population began growing again in the 1980s. Recent census estimates indicate that Wyandotte County’s population is beginning to grow again, with a steady 4.7 percent increase since 2000.

County	2000 Population	2013 Population	2017 Population	Change 2000-2017	Percent Change
Cass	82,592	100,641	103,724	21,132	25.6%
Clay	184,703	230,473	242,874	58,171	31.5%
Jackson	655,709	679,996	698,895	43,186	6.6%
Platte	74,316	93,310	101,187	26,871	36.2%
Ray	23,393	23,039	22,855	-538	-2.3%
Johnson	454,539	566,933	591,178	136,639	30.1%
Leavenworth	68,957	78,185	81,095	12,138	17.6%
Miami	28,536	32,835	33,461	4,925	17.3%
Wyandotte	157,883	160,384	165,288	7,405	4.7%
Total	1,730,628	1,965,796	2,040,557	309,929	17.9%

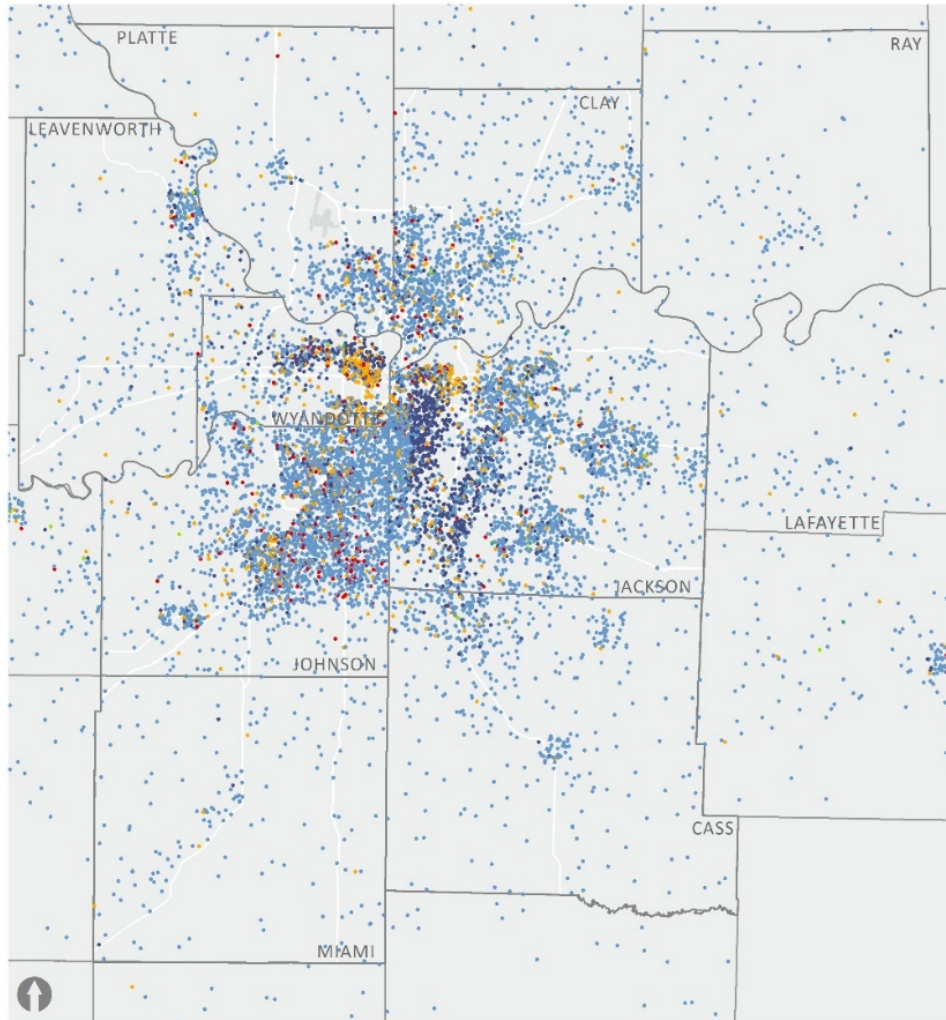
The region is becoming more diverse, with the greatest growth among Hispanic people.

As the region grows, it has also become more diverse. The region’s population is predominantly white, but it has seen increased diversity since 1990. In 1990, the white population accounted for nearly 83 percent of the total, with 13 percent black and 3 percent Hispanic.

By 2010, the percent of white population had fallen to 74 percent, while the black population fell just slightly, to 12 percent. The Hispanic population grew considerably, to 8 percent. Two-thirds of the region’s population growth over the past decade has been among people of color. Long-range forecasts by race predict that the region’s white population will further decline to 62 percent of the total by 2050, while non-white population will grow to represent 38 percent. The Hispanic population is expected to grow the fastest.



The Kansas City region remains segregated, although persons of color are moving to suburban areas in increasing numbers. Hispanic and Asian households tend to be less segregated than Black households.



Population by Race/Ethnicity

1 Dot = 200 People

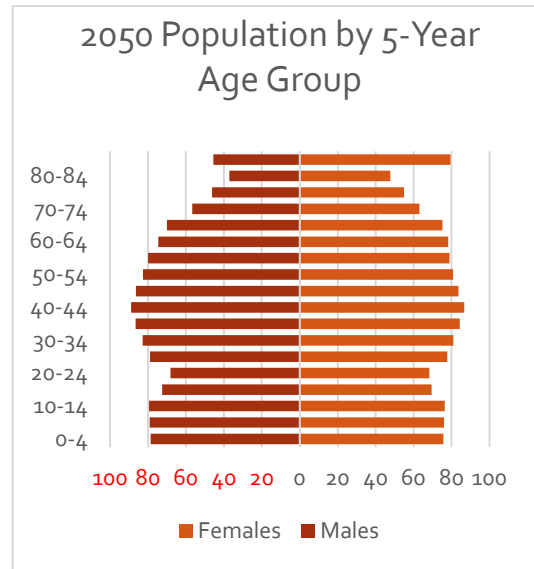
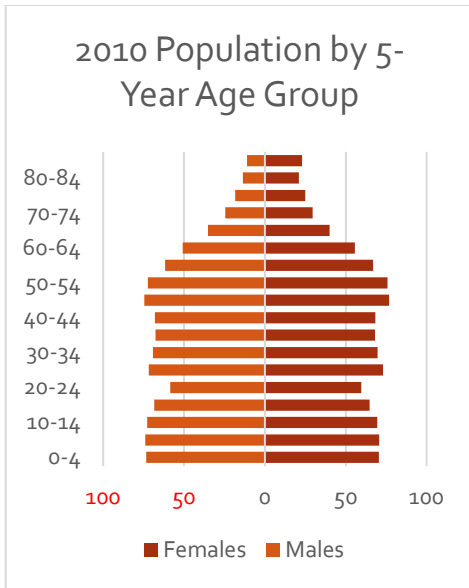
- White
- Black
- American Indian
- Asian
- Pacific Islander
- Other
- Hispanic

MARC
Missouri Regional Council

Census ACS 5-year 2016
Tract data

The region's older adult population is growing, and expected to represent a larger share of the total in the future.

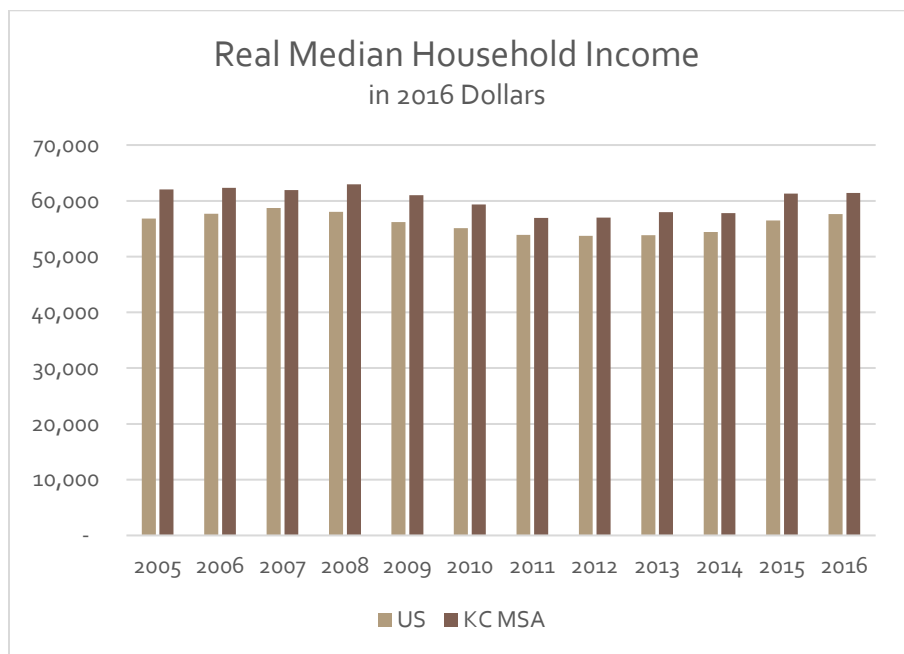
The region's population is also aging. Between 2000 and 2010, the Kansas City Metropolitan Statistical Area's population over age 65 grew from 212,002 to 243,624. The number of adults age 18-64 grew by 12 percent, from 1,136,912 to 1,269,850. Children under 18 grew by 7 percent, from 487,124 to 521,860. As the Baby Boomer generation ages, the number of people age 65 and over is expected to more than double in the coming decades, growing from 11 percent of total population in 2010 to 22 percent in 2050.



INCOME

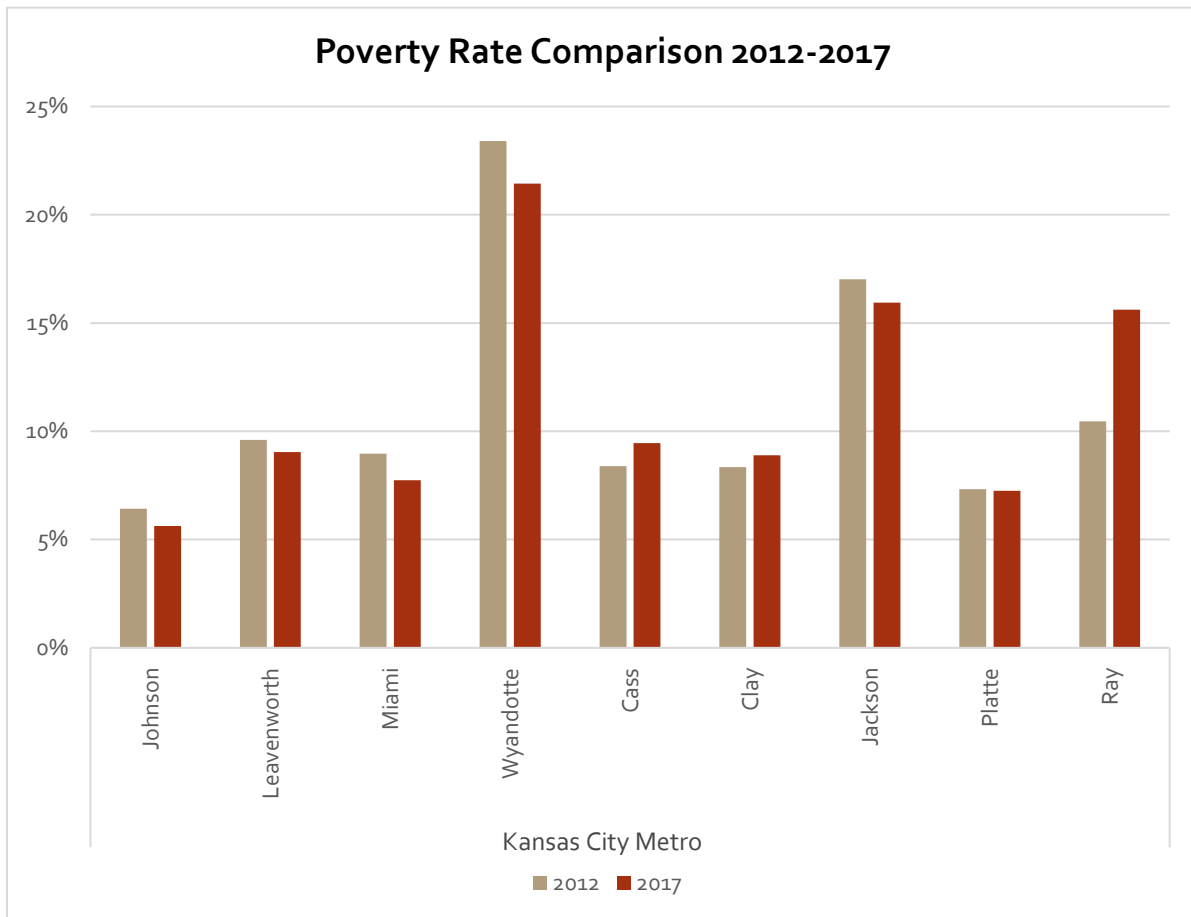
The Kansas City region’s median household income has rebounded from the recession, but has not made real gains over the past year and has not bounced back to its 2008 pre-recession high.

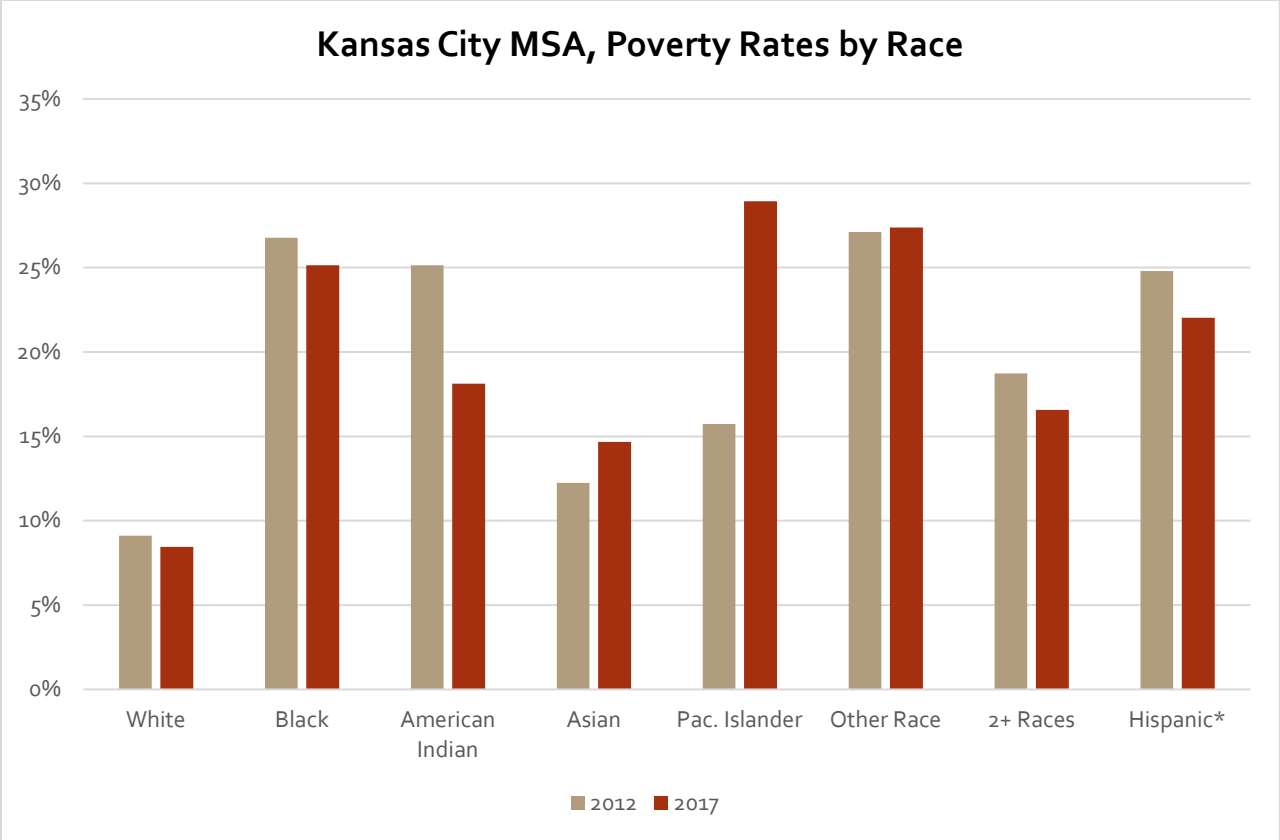
The region’s median household income was \$62,000 in 2016, about the same as 2015 and slightly less than a pre-recession high in 2008. The region’s position relative to its 30 peer metro areas has dropped from 12th to 14th in income growth.



POVERTY

The Kansas City Metro's poverty rate is well below the national rate (11.5 percent to 14.6 percent). There has been a decline in the region's poverty rate over the last 5 years (12.1 percent to 11.5 percent between 2012 and 2017). However, poverty varies widely throughout the metro. Wyandotte County, Kansas and Jackson County, Missouri contain the largest areas of concentrated poverty. While both of these counties are diverse in their socio-economic characteristics, these high-poverty areas have led to the counties having higher overall poverty rates.



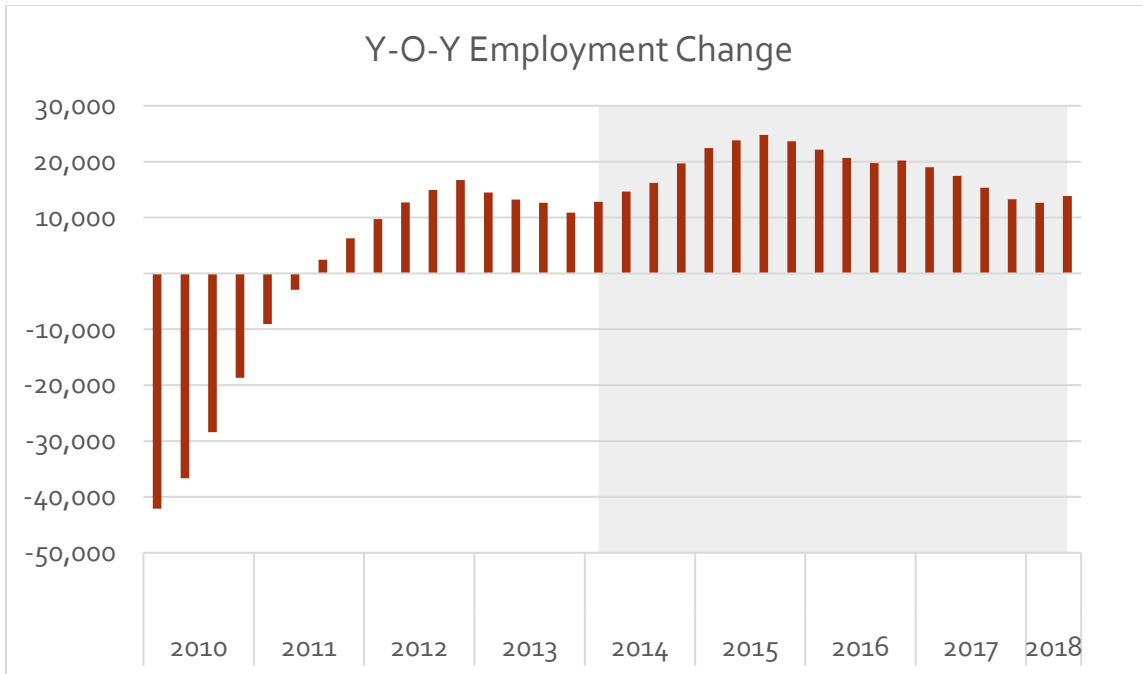


Poverty is also unequal when it comes to race and ethnicity. The 2017 poverty rate for whites is 8.4 percent, while poverty rates for the two largest minority groups (blacks and Hispanics) tops 20 percent. With the exception of Asian, Pacific Islander and Other Race, poverty rates for all races and ethnicities declined between 2012 and 2017.

EMPLOYMENT

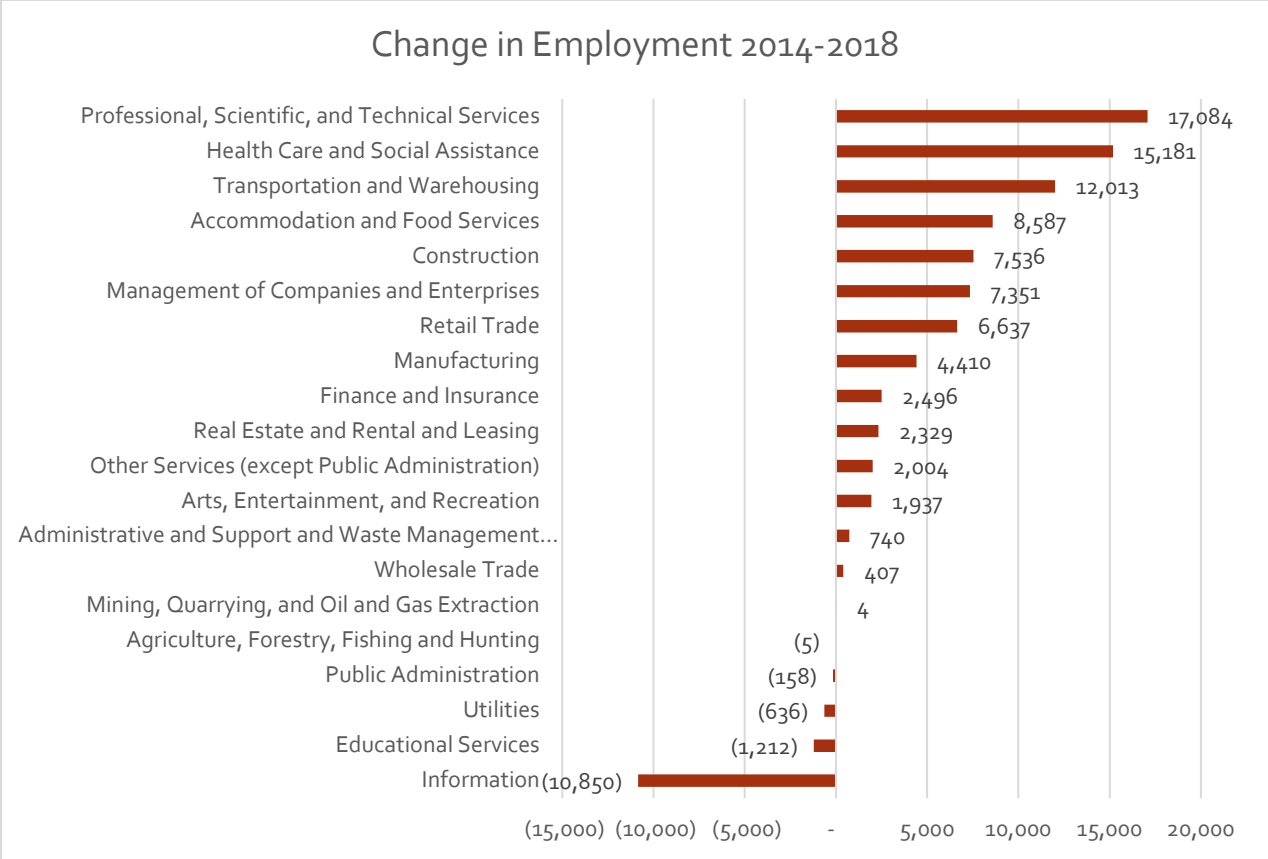
The region continues to add jobs, and benefits from a diverse industrial mix. Leading industries are health care, professional services and back office support services. Like the nation, unemployment remains low, which could limit the region’s economic growth.

After struggling to gain traction since the recession, Kansas City’s employment has continued to show steady growth, reaching 1,101,100 in July 2018. The region has added 76,000 jobs over the past four years, although the growth rate has slowed. Employment change over the past 12 months was 16,700, an annual growth rate of 1.5 percent. This growth rate places Kansas City in the bottom half of its peer cities for job growth.



The professional, scientific and technical services sector has grown the most over the past four years due in large part to Cerner’s expansion. The health care sector continues to be one of the largest in terms of both jobs and job growth. Since 2001, both Kansas City and the nation lost manufacturing employment. However, the manufacturing sector has grown slightly over the past four years by 4,410 jobs due in part to reinvestment from Ford and General Motors into local assembly facilities.

Much of this good employment news has been balanced out by severe declines in Kansas City’s information sector. This industry, which includes telecommunications and media, has gone from nearly 60,000 jobs in 2001 to under 20,000 in 2017. Much of this decline is centered on Sprint, which is located in Overland Park, Kansas. With Sprint’s merger with T-Mobile, it is possible these declines could continue.



Source: Jobs EQ

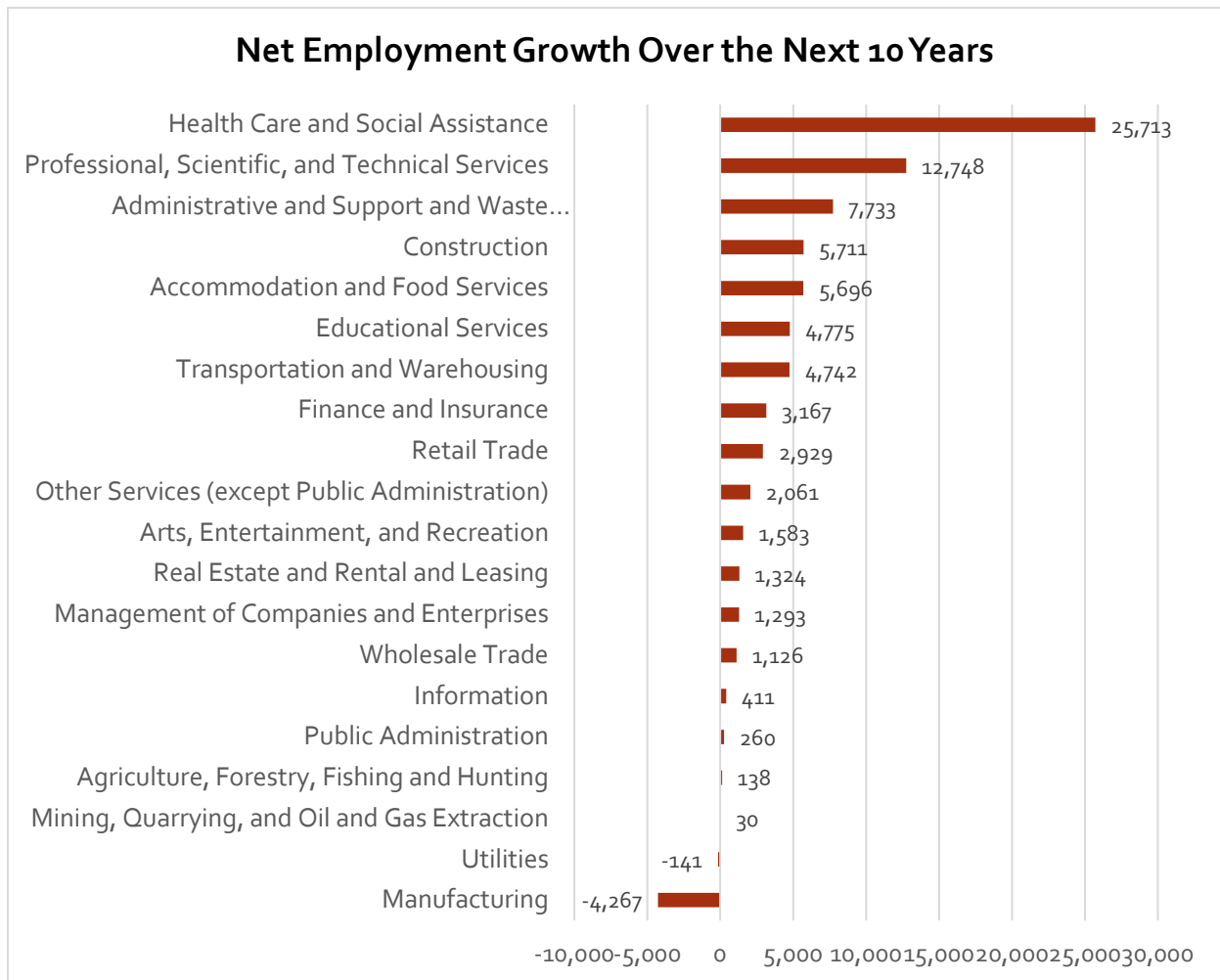
Losing manufacturing, gaining customer service

The metro has had its share of business gains and losses in recent years. Noteworthy on the loss side of the ledger are manufacturers Harley Davidson and Procter and Gamble. These two businesses announced closings that will result in more than 1,000 lost jobs. Financial and IT services firm DST employs about 4,000, mostly in downtown Kansas City, Missouri; their recent purchase by SS&C puts many of those jobs in jeopardy, but the exact number is unknown. Add to this list an uncertain future for Sprint who, as of this writing, is planning to merge with T-Mobile. It is unknown how this will affect Kansas City employment, but it was not long ago when Sprint was the region’s largest private employer. On the other hand, Cerner has dramatically increased employment in the Kansas City area at multiple campuses to almost 14,000 employees, including 3,000 in customer service positions. The metro has had several recent successes in growing new companies (DEG) and in enticing new companies to the metro. Some of the largest wins (Turn-5, Geico, Trial Card, and EXL) will be in the customer service space.

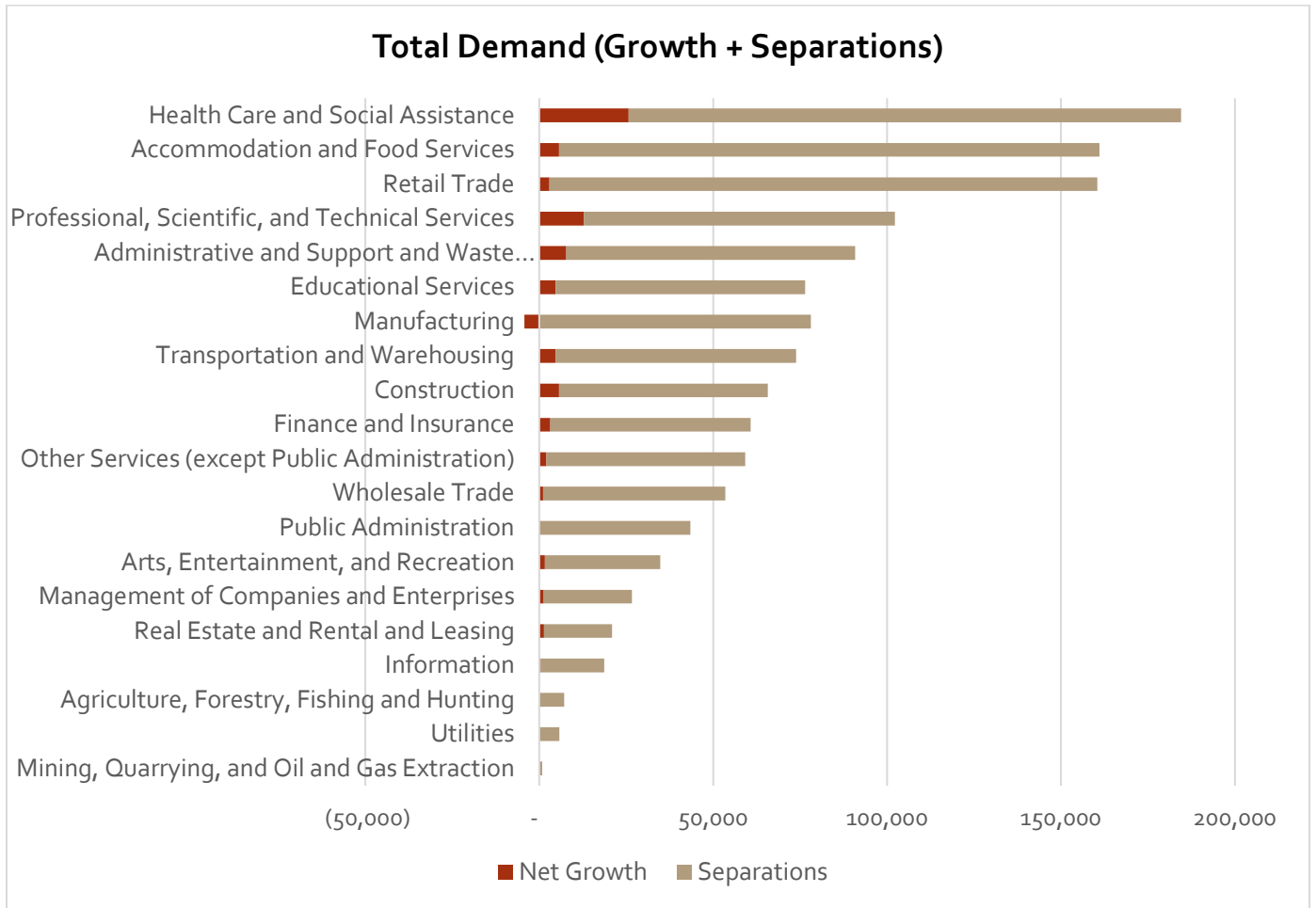
Industry specialization

The Kansas City's economy has weathered economic downturns because it is not dependent on one industry, but is diverse. Yet, the region's growth has been constrained because it lacks strength in certain high growth clusters.

The chart below provides a snapshot of expected employment growth by industry for the next 10 years for the 15-county Kansas City Metropolitan Statistical Area (MSA). Jobs are grouped by industry using NAICS classifications — a categorization system used by business and government to classify establishments by type of economic activity. Health care and social assistance is the largest employment industry in the region, with about 14 percent of all jobs, and is expected to grow the most. The professional, scientific and technical services industry is expected to grow by almost 13,000 jobs.



Over the next decade, health care, professional, scientific and technical services and back office jobs are expected to lead job growth in the metro area.



The following chart depicts several areas of economic specialization where Kansas City has a location quotient greater than one, which indicates strength compared to the national average. Among the highest location quotients are monetary authorities including the Federal Reserve Bank (10.81); transportation equipment manufacturing due to GM and Ford plants (6.17); rail transportation; pesticides and fertilizer manufacturing; and diagnostic laboratories. Other areas of information technology, architecture and engineering, finance and insurance, logistics, and life sciences (except hospital) have a quotient greater than one. Those just under one include administrative and support services, manufacturing and information.

What does Kansas City Do?



However, even in the areas where Kansas City has a strong specialization, many are losing in employment. Some of these losses are well known, such as employment reductions at Sprint in the communications industry, and the Kansas City Star and Hallmark in the printing and publishing and advertising industries.

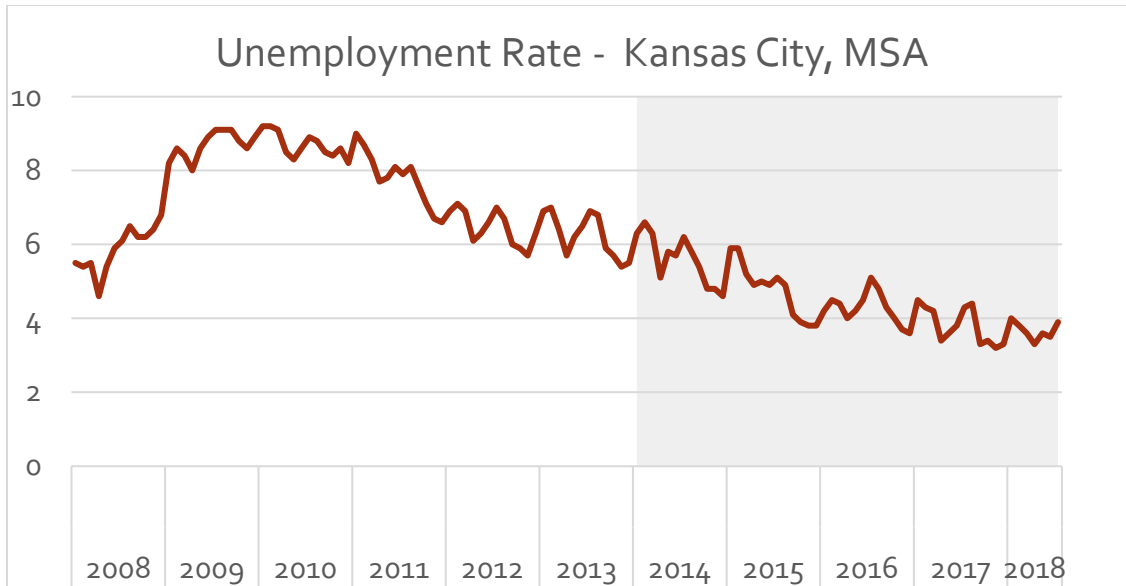
Among our peer metro areas, the Kansas City area has improved in information technology (from 3rd to 2nd), life sciences (from 8th to 5th), and architecture and engineering (from 3rd to 2nd). However, we have lost ground in finance and insurance, communications, administrative/support services, logistics and manufacturing.

Finance and Insurance (52)		IT Industry		Information (51)	
Omaha	1.68	Austin	2.87	Denver	1.68
Charlotte	1.50	Kansas City	1.84	Austin	1.51
Dallas	1.45	Denver	1.64	Charlotte	1.22
Minneapolis	1.39	Dallas	1.35	Omaha	1.16
Kansas City	1.34	Minneapolis	1.15	Dallas	1.13
Denver	1.29	Omaha	1.04	Nashville	1.11
Cincinnati	1.28	Indianapolis	0.98	St. Louis	1.06
St. Louis	1.19	Sacramento	0.92	Minneapolis	1.00
Milwaukee	1.18	Charlotte	0.87	Kansas City	0.84
Indianapolis	1.13	Milwaukee	0.80	Milwaukee	0.81
Nashville	1.12	St. Louis	0.78	Indianapolis	0.80
Austin	0.99	Cincinnati	0.78	Cincinnati	0.69
Oklahoma City	0.93	Nashville	0.66	Sacramento	0.67
Sacramento	0.93	Oklahoma City	0.56	Oklahoma City	0.63

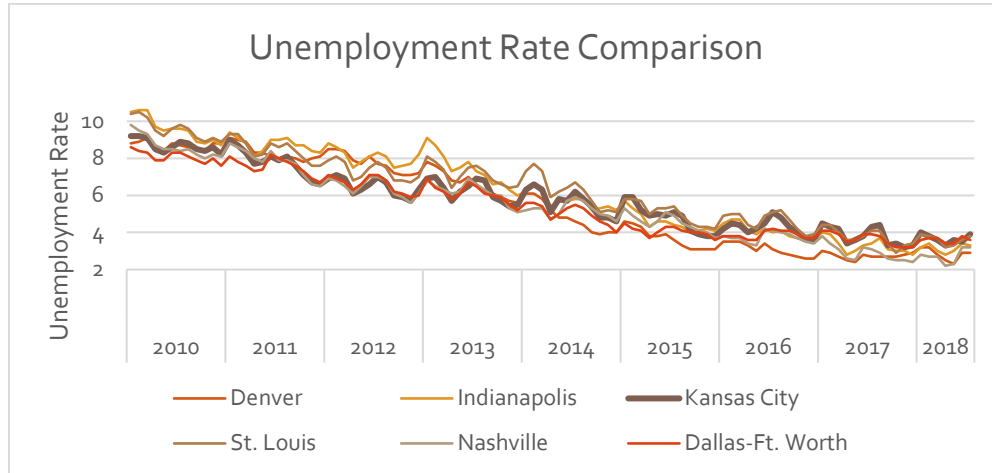
Life Science Industry KCRising Less Hospital		Administrative and Support Services (561)		Transportation and Warehousing (48)		Architectural, Engineering, and Related Services (5413)		Manufacturing (31)	
Indianapolis	2.25	Indianapolis	1.30	Indianapolis	1.52	Denver	1.97	Milwaukee	1.68
Minneapolis	1.99	Dallas	1.23	Dallas	1.40	Kansas City	1.57	Cincinnati	1.30
Milwaukee	1.27	Nashville	1.21	Omaha	1.35	Austin	1.48	Minneapolis	1.20
St. Louis	1.05	Charlotte	1.19	Kansas City	1.28	Sacramento	1.12	Indianapolis	1.06
Kansas City	1.02	Oklahoma City	1.07	Charlotte	1.13	Omaha	0.99	Charlotte	1.04
Cincinnati	0.96	Denver	1.06	Nashville	1.13	Cincinnati	0.97	Nashville	1.01
Denver	0.95	Austin	1.06	Cincinnati	1.11	Dallas	0.95	St. Louis	1.00
Austin	0.89	Milwaukee	1.05	St. Louis	1.03	Minneapolis	0.95	Dallas	0.90
Dallas	0.83	Sacramento	0.98	Denver	1.00	Charlotte	0.93	Kansas City	0.85
Nashville	0.81	Omaha	0.98	Minneapolis	0.98	St. Louis	0.90	Omaha	0.83
Omaha	0.78	Kansas City	0.96	Oklahoma City	0.84	Oklahoma City	0.85	Austin	0.67
Sacramento	0.78	Cincinnati	0.93	Milwaukee	0.79	Nashville	0.81	Oklahoma City	0.65
Charlotte	0.77	St. Louis	0.91	Sacramento	0.73	Indianapolis	0.80	Denver	0.56
Oklahoma City	0.71	Minneapolis	0.81	Austin	0.53	Milwaukee	0.75	Sacramento	0.43

UNEMPLOYMENT

At the end of 2017, the Kansas City metro's seasonally adjusted unemployment rate was 4.0 percent. The July 2018 (non-adjusted) rate was 3.9 percent, lower than 4.3 percent at this time last year. While the unemployment rate continued to decline, it has begun to level off. Employers still appear confident as job postings remained strong with almost 70,000 job postings in July.



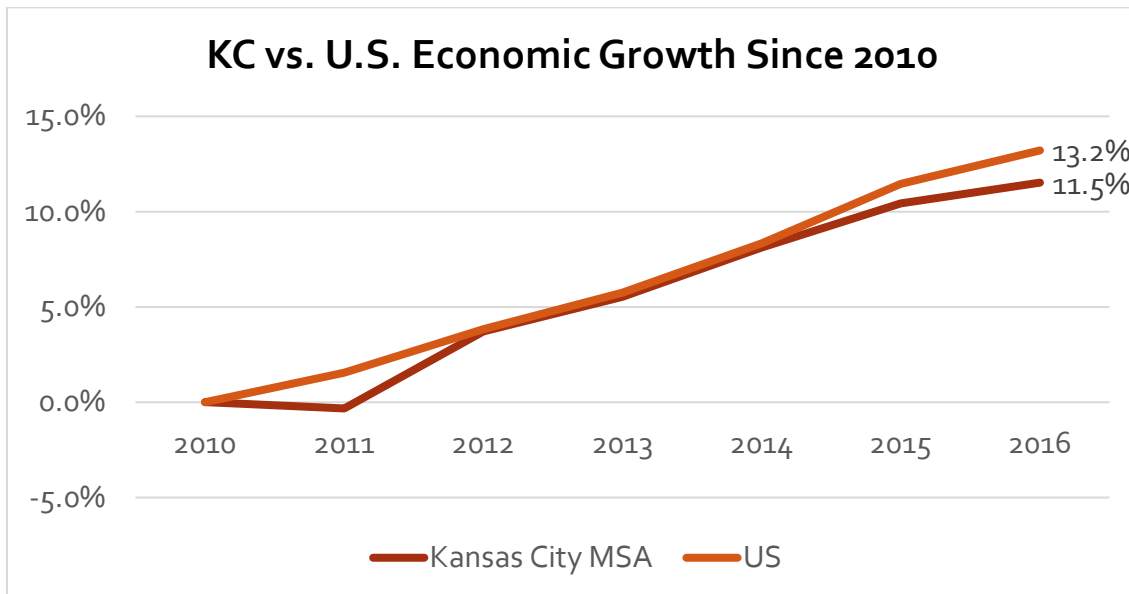
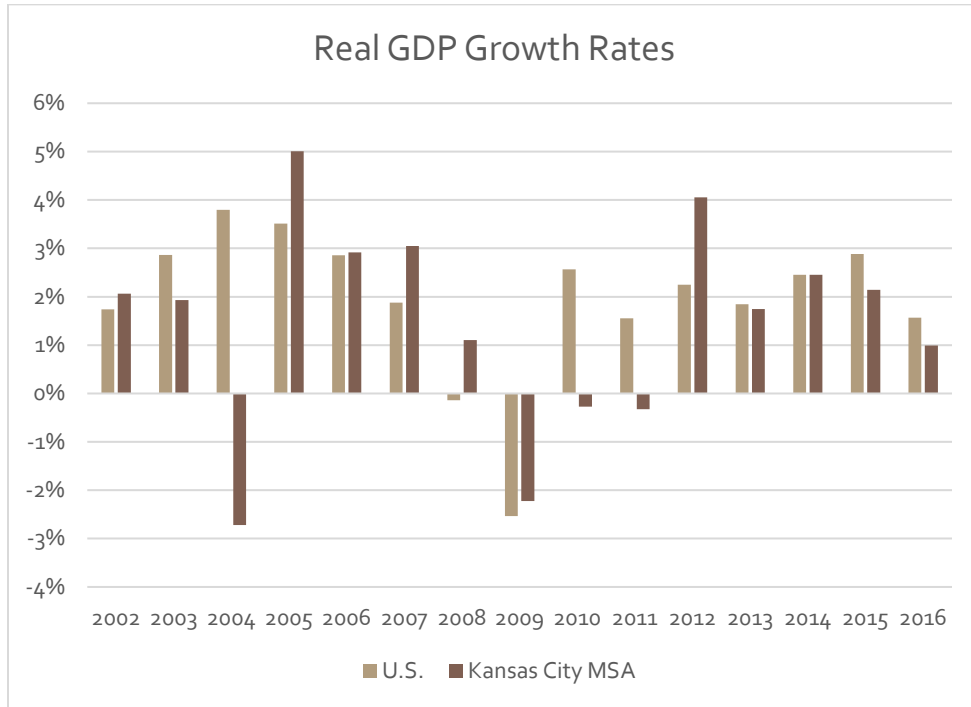
With unemployment rate at such low levels and the number of jobs increasing, at what point will the region’s economic growth be constrained due to insufficient labor supply? The demand for workers includes both new jobs and filling vacancies due to retirements or workers leaving the employer or the region. It appears that other peer metro areas have similar challenges with low unemployment rates.



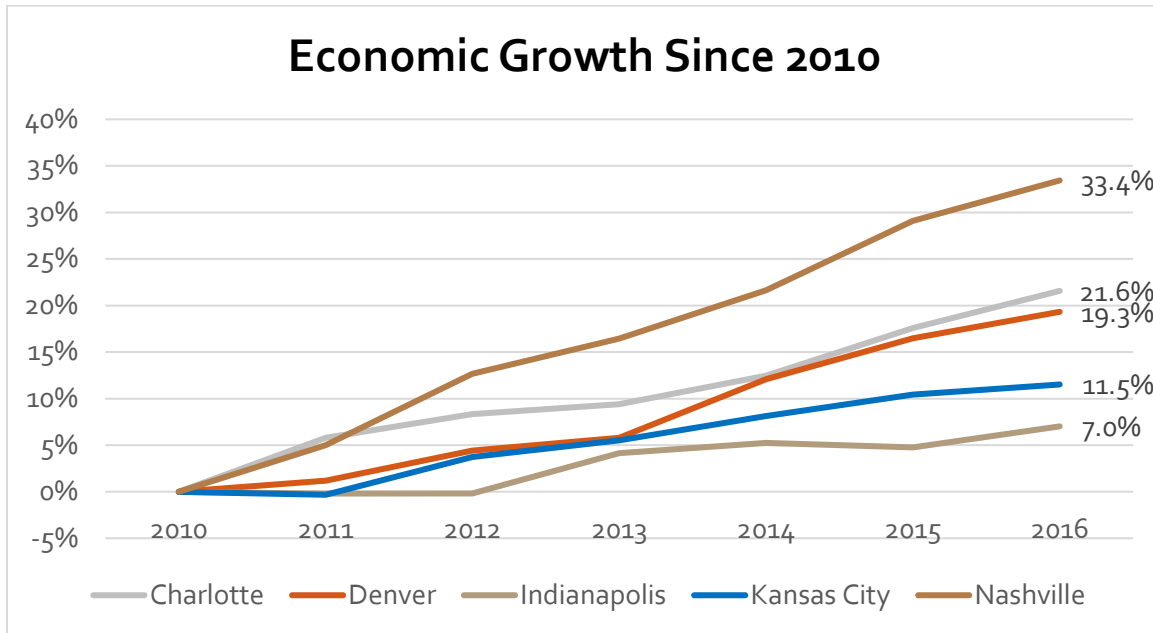
GDP

It used to be that the Kansas City area’s economy could run at roughly the same pace as the national economy. That seems to have changed. Dating back to the recession in the early 2000s, Kansas City was impacted more than the nation as a whole (slower growth in 2003, and sharp decline in 2004 relative to a strong year nationally). Kansas City seemed to gain momentum in 2005-2007 before the great recession brought the global economy to a halt. The recovery has been mostly modest for Kansas City. With the exception of 2012, Kansas City’s

economy has struggled to keep pace with the national economy. Kansas City’s performance might be tied to an uneven performance in some key industries. While most key industries’ employment growth in metro Kansas City matches national growth, there are three notable exceptions: manufacturing, information and professional scientific and technical services.

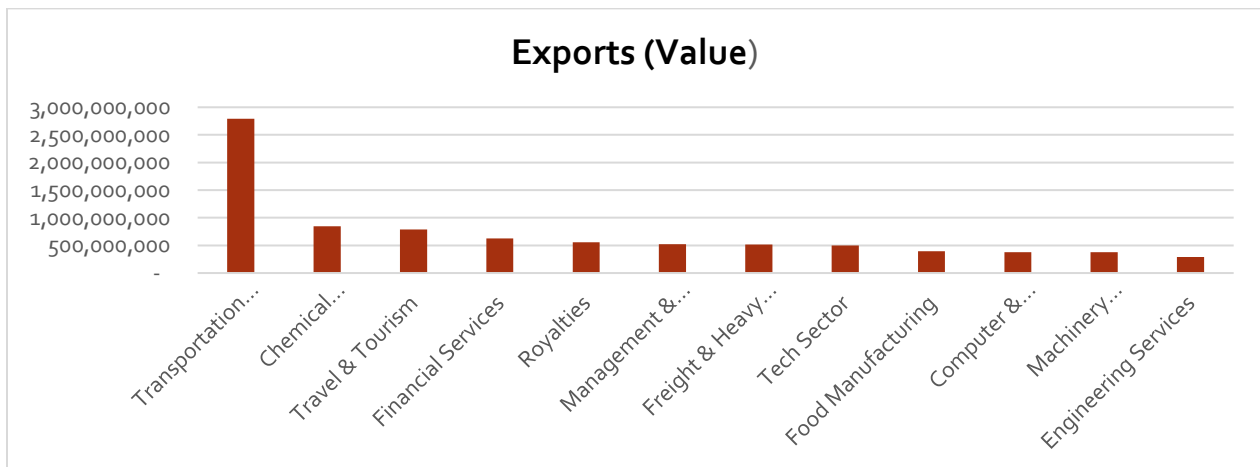


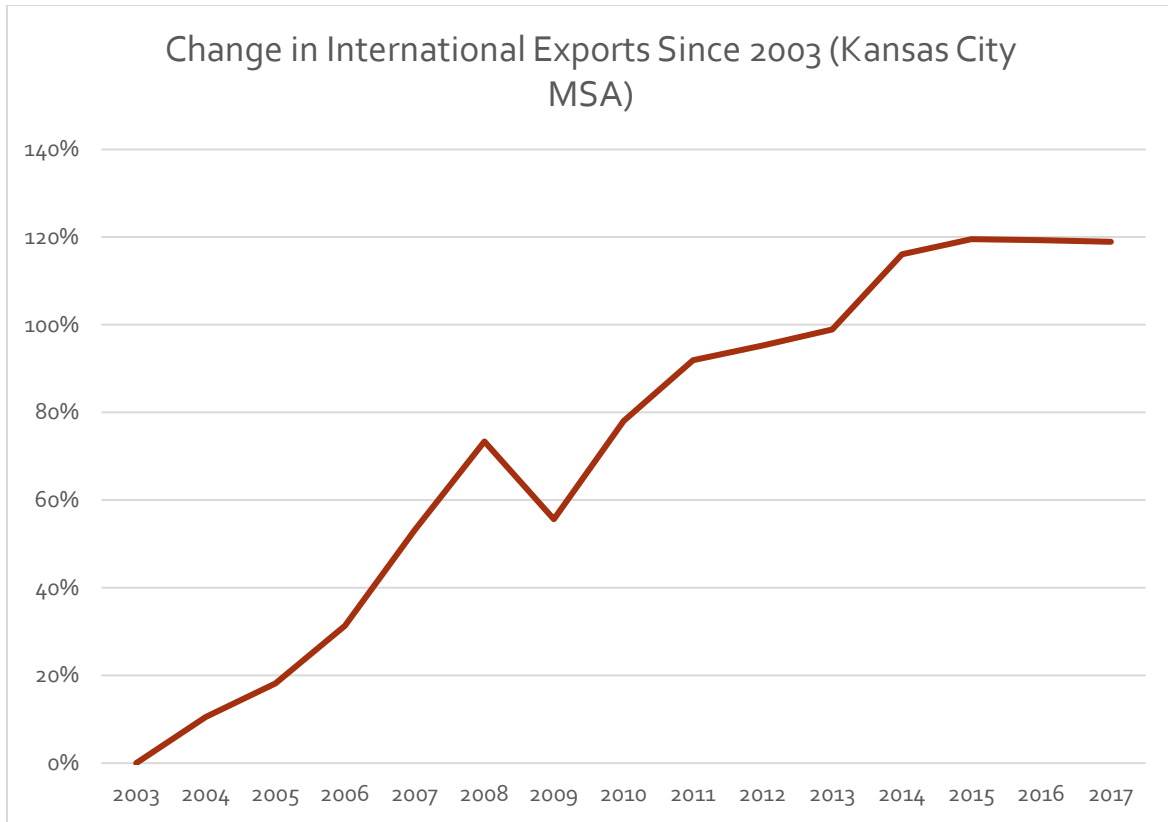
The US is now growing faster than the region in GDP. In addition, the region is not keeping pace with its peer metro areas.



EXPORTS

Kansas City lags the nation in terms of overall export level in proportion to output, and exports are down at both the US and regional level. The following chart shows the value of exports, with transportation equipment exceeding all other categories. The other top industries in real exports are freight and port services, communications equipment, miscellaneous fabricated metal products and information technology royalties.

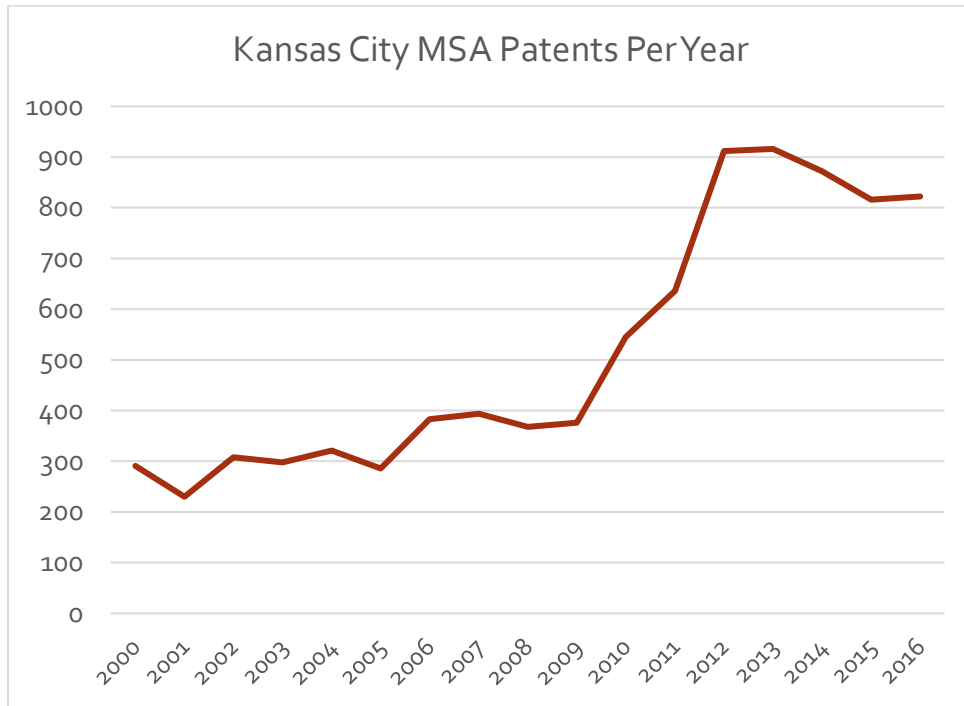




The 2015 Brookings and JPMorgan Chase Global Cities Initiative report on exporting for the top 100 metros found that Kansas City had increased real exports from 2003 to 2014 by 67 percent, and retained its rank at 34th among major metros in real exports. Kansas City improved in its export share of GDP, at 9.6 percent and its rank rose from 65th to 55th. The region’s direct export-supported jobs grew from 21,980 to 30,640 between 2003 and 2014 and retained the rank of 36th. Total export-supported jobs rose to 64,590.

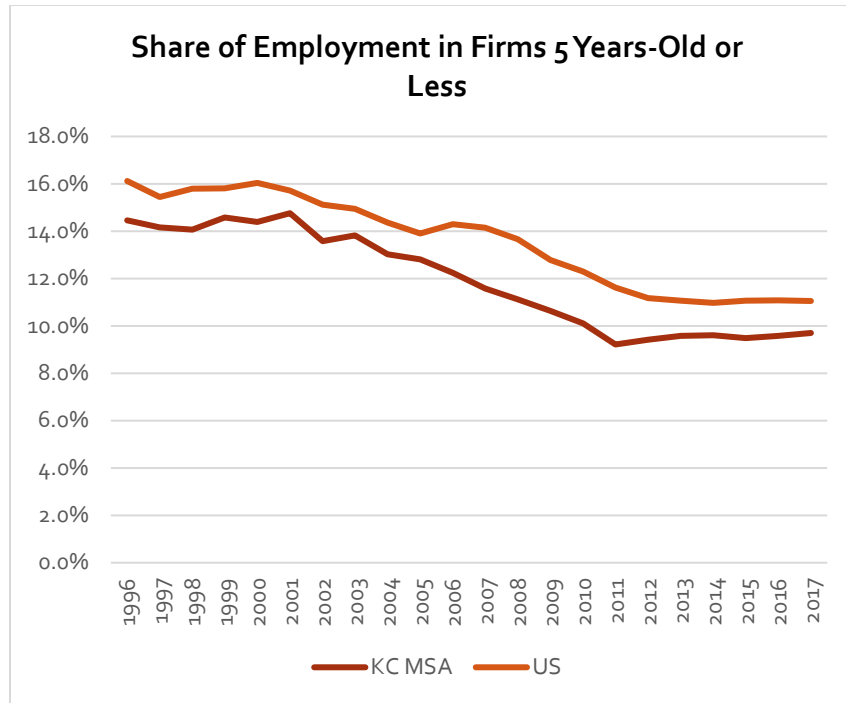
INNOVATION & ENTREPRENEURSHIP

The Kansas City region is home to a growing number of entrepreneurial programs, and the region moved up 14 slots on the Kauffman Index of Startup Activity between 2015-2017. The region continues to lag in startup jobs and access to capital. Patents grew during the 2000-2012 timeframe, but has leveled off and declined modestly to under 900 patents per year. Sprint leads all businesses in the number of patents filed.



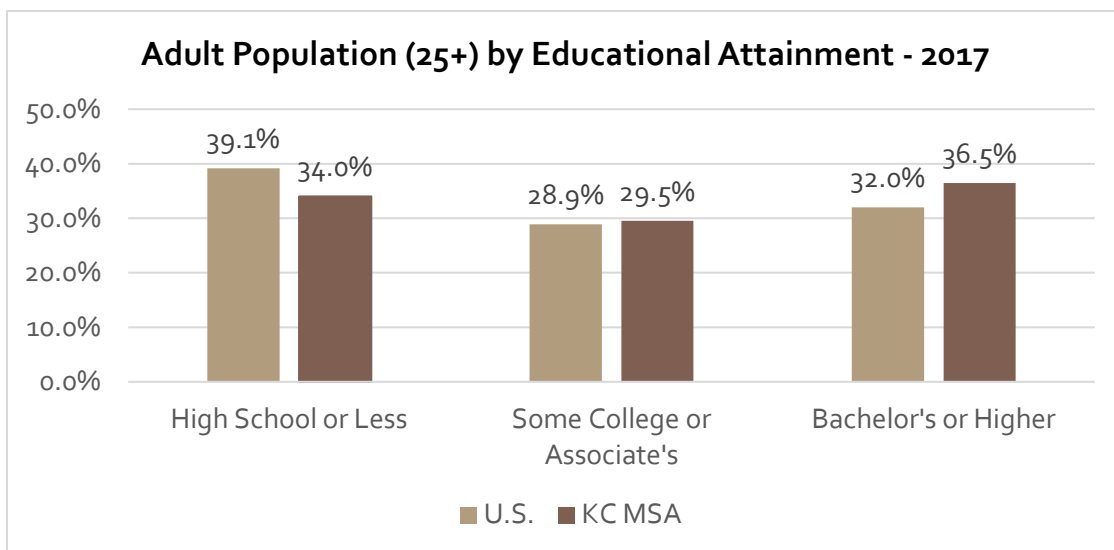
Kansas City jumped 14 spots on the Kauffman Index of Startup Activity from 29 to 15 between 2015 and 2017. (Note: The Startup Activity Index integrates several high-quality sources of timely entrepreneurship information into one composite indicator, relying on three components to measure startup activity: Rate of New Entrepreneurs, Share of New Entrepreneurs, and Startup Density.

While the region has several innovation centers, the ability to start and grow companies in Kansas City is difficult to measure. When considering the number of firms created, Kansas City performed roughly equal to the top 50 and better than its peers in the first part of the 2000s. However, Kansas City's establishment birth rate for new businesses was weaker than U.S. metros and 15 peers during the recession, and remains weaker during the recovery thus far.



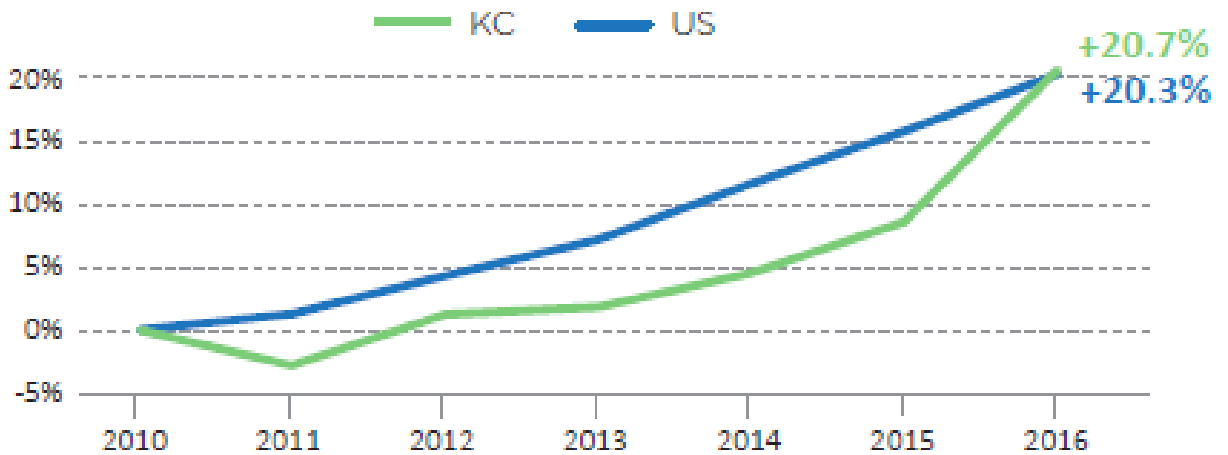
EDUCATION & WORKFORCE

The Kansas City region has a strong workforce delivery system that works closely with industry partners to prepare individuals for in-demand careers. While Kansas City has a higher percentage of residents with at least a bachelor’s degree than the U.S. as a whole, it is average when compared with the top 100 metro areas. Kansas City also lags in science- and engineering-related bachelor’s degrees with only 38.6 percent of bachelor’s degrees in science and engineering, compared to 44.4 percent for the top 100 metros.



Percent Change in STEM Bachelor's Degrees

KC vs US, 2010–2016, young adults ages 25–39

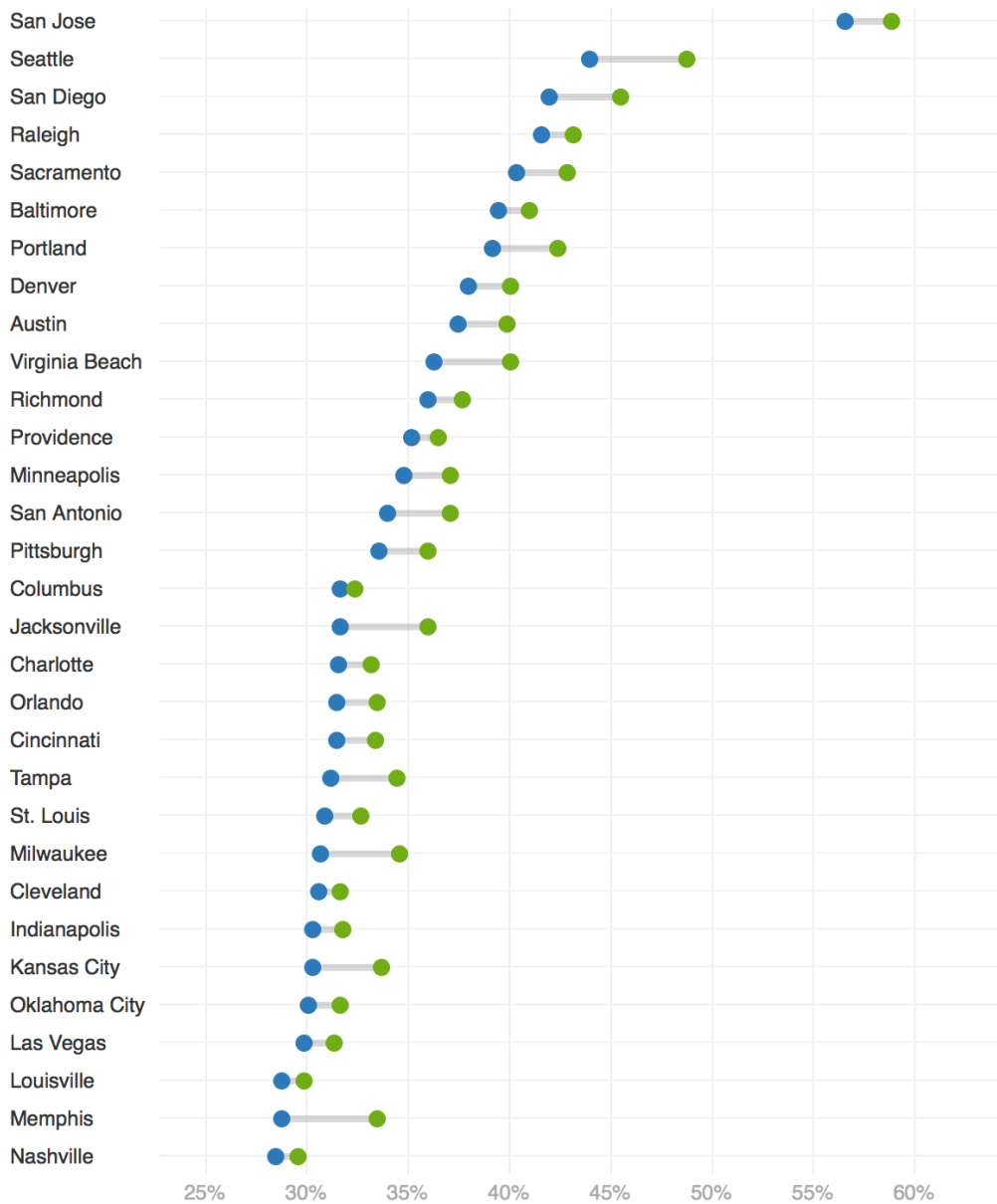


Source: Census Bureau ACS

The region's recent change has brought the percent of adults with a bachelor's degree in a STEM field to just above the U.S. average. Yet, at this rate, the region is not at a sufficient rate to meet the current and future demands of area employers for skilled workers.

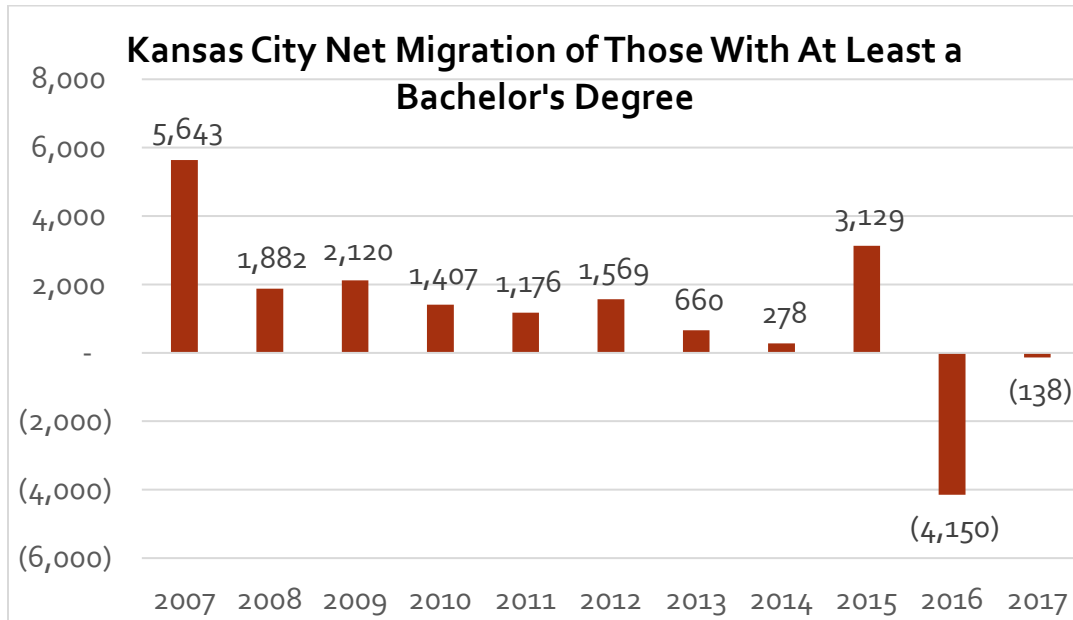
Percent of First Bachelor's Degrees in STEM - 2016

● Overall ● 25-39

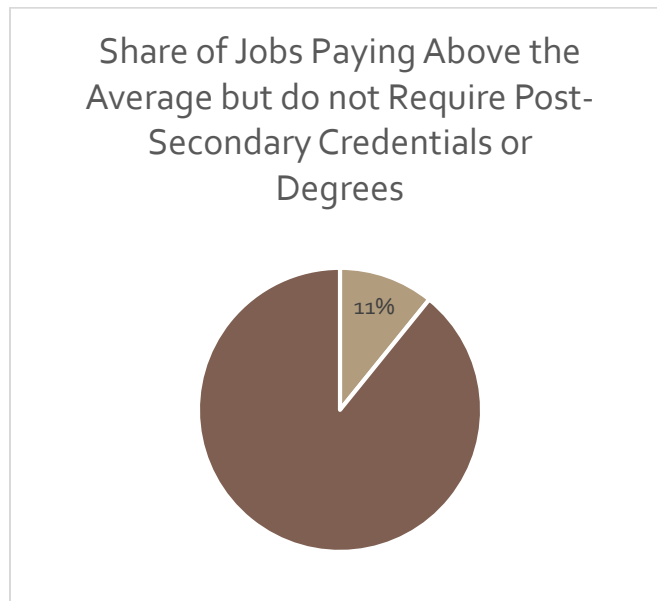


With the substantial interest in engineering and health care IT, the region is lagging in the percent of graduates with STEM degrees.

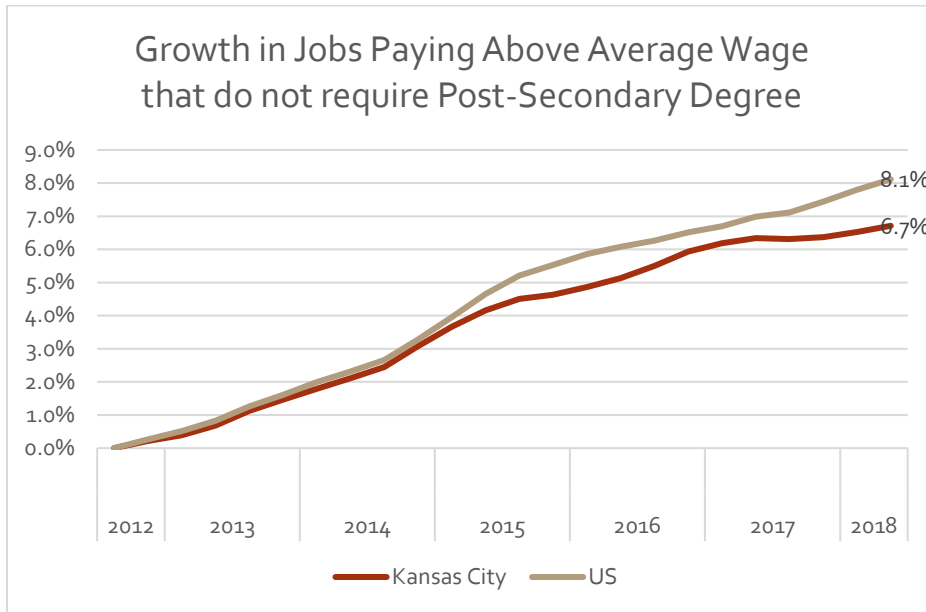
What is more troubling is the region is losing its talent. While the new data for 2017 shows a much more modest decline, the trend is of concern as the region is losing mid-career workers.



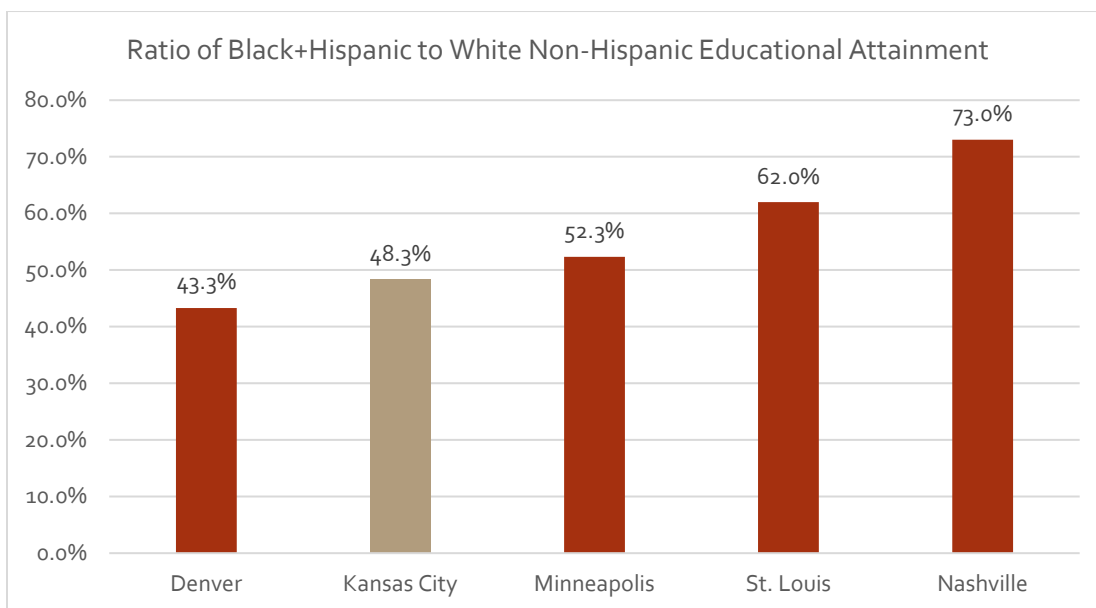
A balanced economy is adding jobs at all levels along the education spectrum. While much attention is being paid to high paying jobs that often require college degrees, it is also important to consider good paying jobs that do not require an education beyond high school or could be secured with a training certificate. In the Kansas City area, 11 percent of all jobs meet these criteria. Such jobs include sales representatives, executive administrative assistants, electricians, police officers and plumbers.



The jobs in the Kansas City region that pay above average and do not require a postsecondary degree have grown 6.7 percent since 2012, a slower pace than the national average.



While Kansas City has a larger share of its adult population with a bachelor’s degree or above, it has a sizable education gap between whites and people of color, with 48.5 percent of white non-Hispanic adults with at least a bachelor’s degree while only 23.4 percent of black and Hispanic adults combined have that level of education. While this trend exists among our peer metros, some of our region’s peers seem to be doing a better job. Nashville, in particular, reports 73 percent of black and Hispanic adults with at least a bachelor’s degree.



TRANSPORTATION ACCESS

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, numerous interstate beltways, and U.S. and state highways serve the region.

Major trucking companies, including YRC, 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, and a number of smaller airports. Kansas City is the second busiest railroad center in the nation, with major rail yards for Union Pacific, Burlington Northern and Canadian Pacific. Barge transportation, with about a dozen regulated barge lines transporting goods through the metropolitan area on the Missouri River, also serves the region.

ROADWAY SYSTEM INFRASTRUCTURE

Kansas City's system of roadways is among the most extensive in the nation. According to Federal Highway Administration statistics, the Kansas City region has the most freeway miles per person of all urbanized areas with populations greater than 500,000. The Kansas City metro area also has the second highest total roadway miles per person and the eighth highest daily vehicle miles traveled (DMVT) per person. 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. In the eight county area (not including Ray County), there are 655 miles of interstates and 493 miles of freeways/expressways.

ROADWAY SYSTEM CONDITION

According to data collected from The Road Information Program (TRIP), Kansas City's average pavement conditions have improved significantly compared to national and peer city averages. In TRIP's 2013 Bumpy Roads Ahead research report, Kansas City's "poor" pavement conditions significantly exceeded both the national and peer city averages. In TRIP's 2013 report, only 15 percent of Kansas City's roads were classified as "poor" pavement conditions. Of 75 metros with populations over 500,000, only 13 had fewer "poor" roads than Kansas City. The report found 29 percent of the Kansas City region's roads to be in mediocre condition; 18 percent fair; and 38 percent good. TRIP's report uses 2011 FHWA data for its analysis.

BICYCLE/PEDESTRIAN FACILITIES

Bicycle and pedestrian facilities in the Kansas City metropolitan region are being developed at an increasing rate as many communities recognize the importance of offering residents and visitors greater mobility choices. Many communities in the region have adopted local plans for

both on-road and off-road facilities, and many have adopted Complete Streets policies to include bicycle and pedestrian accommodations as roadways are constructed or improved. In 2017, a bicycle facility inventory compiled by MARC identified 1,928 miles, including walking and hiking trails representing about half of the total. On-road bike lanes and share the road routes account for another 43 percent.

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

Freight Movement in the Kansas City MSA, 2015

Type	Tons	Value (Millions)
Truck	283,323,452	\$204,884
Rail	73,586,451	\$14,791
Water	188,464	\$50.7
Air (includes truck/air)	163,472	\$6,707.5
Pipeline	10,700,304	\$37,283.5
Total	367,962,143	\$263,717.9

Source: Import/Export Freight Analysis Framework (FAF4)

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. In addition to intermodal activity, numerous switching yards, classification yards, trans-load facilities and other rail operations operate in the region. Kansas City Southern 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 has moved its intermodal operations to

Logistics Park KC in southern Johnson County, Kansas, where significant warehouse space is under development.

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 with historic trends indicating a high rate of growth, which is likely to continue.

AVIATION

Kansas City International Airport (KCI) is home to the region's air cargo terminal, one of the highest-volume 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. A 800-acre master planned site, the KCI Intermodal Business Centre, began operation in 2015 and could include more than 5 million square feet of distribution, air cargo and on-ramp airport-related logistics buildings.

The voters in Kansas City, Missouri, approved a measure to allow for the financing of a new single terminal at KCI, which is expected to open by 2022. Businesses, airlines and travelers have all expressed support for a new modern terminal to enable expansion of air passenger travel at KCI. Total passengers at KCI were 11.5 million in 2017, a 4 percent increase from the previous year. More than 116 million pounds of air freight moved in and out of KCI in 2017, a 5 percent increase from the previous year.

The region has an adopted Aviation Systems Plan, which identifies 13 general aviation airports in the nine county region. These airports house over 1,100 aircraft and recorded 344,467 takeoffs and landings in 2015. Several of the airports, including Lee's Summit Municipal Airport, have made significant investments in recent years. Lee's Summit's airport recently extended its runway, increased its weight bearing capacity, and constructed new hangars to accommodate additional aircraft.

TRANSIT SERVICE AND RIDERSHIP

Transit service in the region is provided by the Kansas City Area Transportation Authority (KCATA); Johnson County Transit (JCT); Unified Government Transit (UGT); the city of Independence, Missouri; and the Kansas City Streetcar Authority. For more than 15 years, MARC and area transit providers have worked cooperatively to develop and implement the Smart Moves Regional Transit and Mobility Plan, a regional transportation plan for expanded transit and mobility services throughout a seven-county area.

For the past several years, the Kansas City area has seen an overall decrease in total bus transit ridership, on par with national transit ridership trends. This decrease was largely due to an improving economy, low gas prices, increased car ownership and the introduction of transportation network companies as a mobility option. Despite the overall decrease in bus-based ridership, local agencies continue to improve and expand the transit system with focus on connecting more people to jobs. Average weekly transit trips fell from 53,550 in 2010 to 50,388 in 2016.

Efforts are underway to upgrade transit services in key urban corridors. In 2011, a MAX bus rapid transit line was added along the Troost Avenue corridor in Kansas City, Missouri. The Prospect Avenue MAX corridor is currently under construction and will open in 2019. KCATA is studying two additional corridors, Independence Avenue and North Oak, for potential application of MAX bus rapid transit service. With funding from a Transportation Investments Generating Economic Recovery (TIGER) grant from the U.S. Department of Transportation, significant improvements were made to transit facilities across the region, including the Metcalf/Shawnee Mission corridor in Johnson County, Kansas; the State Avenue corridor in Wyandotte County, Kansas; the North Oak corridor in Clay County, Missouri; and several locations in Jackson County, Missouri.

In May of 2016, the Kansas City Streetcar Authority began operations of Kansas City's first modern streetcar line in downtown Kansas City. The streetcar operates on a two-mile section of Main Street. It connects the River Market to the Crown Center/Union Station area and serves the Central Business District (the "working home" to some 90,000 employees), the Crossroads Arts District, and the Power and Light District. Despite decreases in bus-based ridership, streetcar ridership has surpassed initial projections. The Kansas City Streetcar Authority, in partnership with Kansas City Area Transportation Authority, and the city of Kansas City, Missouri, is pursuing extensions to the streetcar line north along the Riverfront and south to the University of Kansas City-Missouri. The first phase of the system resulted in \$18 million in private investment along the corridor.

MODES OF TRAVEL

The Kansas City metropolitan area is heavily dependent on the automobile as the dominant mode of transportation. According to 2011-2016 American Community Survey (ACS) 5-Year Estimates, 92 percent of all commute trips made in the region are by automobile (83.5 percent drive alone; 8.4 percent carpool). Public transportation accounts for only 1.1 percent of all commute trips in the region, and another 1.3 percent walk to work.

Commute trips in the Kansas City region are generally characterized by very low vehicle occupancy rates. U.S. Census data on commuting found an average worker vehicle occupancy rate of 1.06 for the Kansas City metropolitan area in 2016.

Roadway users in the Kansas City urban area travel more vehicle miles on average than roadway users in other urban areas of similar population size (1 to 3 million). The region experienced a sizeable increase in daily vehicle miles traveled (VMT) between 2010 and 2016, rising from 24.7 miles to 29.3 miles per capita. Total regional VMT increased from 46,813,223 miles to 58,332,878 miles over this same period.

CONGESTION

Traffic congestion has increased in metropolitan Kansas City, but it still ranks among the least congested metro areas. The Texas Transportation Institute (TTI) measures congestion in 439 urban areas each year. According to TTI's 2011 Urban Mobility Report, the percent of congested travel during peak vehicle miles held steady at 23 percent — comparing very favorably to the 55 percent average for all large urban areas.

TTI also evaluates the annual cost of congestion per auto commuter. After years of steady increases, peaking at nearly \$800 per year per commuter in 2005, the cost of congestion in the Kansas City region declined to just over \$400 in 2008 before rising sharply; in 2011, the cost of congestion is \$584 per year per auto commuter.

TRAVEL TIME

Because of its relatively low congestion levels, metropolitan Kansas City generally experiences shorter travel times than many other metropolitan areas. Travel time is a function of both the distance traveled and the degree of traffic congestion. While travel distances can be relatively long in Greater Kansas City because of the low-density urban form, limited congestion keeps travel times low. In MARC's latest Travel Time Study, published in 2013, regional travel speeds increased for all functional classifications of roads from 2010 to 2012. The [study](#) includes a full description of methodology.

Commuters into the Central Business District continue to experience a decrease in travel time. The 20-minute travel time distances from downtown increased slightly in every direction. Congestion in peak travel times was heaviest on the I-35 corridor from downtown south to Olathe, Kansas; the I-70 corridor from downtown east to Blue Springs, Missouri; U.S. 69 from I-35 to 151st Street; and U.S.71/I-49 from downtown to Belton, Missouri.

NEW TRANSPORTATION TECHNOLOGIES

Automated vehicle technologies are rapidly advancing and present significant opportunities — as well as challenges — to personal, commercial and public transportation networks. This new technology will impact the region’s built environment, jobs in freight and other industries, and provide opportunities for economic development. MARC convened a stakeholder group in 2017-2018 to begin regional discussions on how state and local public policy could support local innovation, improvements to safety in the transportation system, and economic development as it pertains to autonomous and connected vehicles. Among the findings of initial conversations were the ongoing need for regional stakeholder education; land use policies in areas of parking, curb-sharing (pick-up/drop-offs) and density of development; pricing strategies for autonomous vehicles in operation, parking, registration, and vehicle use; regional and multi-jurisdictional data sharing; and equitable access to services and the transportation system.

MARC, the Civic Council of Greater Kansas City and other organizations have been hosting a series of events designed around innovative transportation technologies to support economic development. KINETIC supports the broader KC Rising vision to build capacity, bring existing businesses to scale and fully realize the region’s potential through strategies to advance globally competitive sectors, human capital and innovation. The KINETIC strategy is built on the premise that regional economic prosperity will be integrally related to the region’s capacity to embrace and successfully deploy new transportation technologies and support the competitiveness of key regional economic clusters. The region would benefit from an increased capacity to store, manage and share large data sets; to explore innovative finance options; and to implement alternative service solutions to meet mobility needs. Technology-driven business development could attract new companies and create new business opportunities.

GEOGRAPHY AND ENVIRONMENT

The nine Missouri and Kansas counties that make up the Kansas City metropolitan area — Cass, Clay, Jackson, Platte and Ray in Missouri and Johnson, Leavenworth, Miami and Wyandotte in Kansas — have a combined area of nearly 4,000 square miles. The region is located in the west-central and northwest parts of Missouri and northeast parts of Kansas. 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 359 feet above sea level in Platte County to a high of 1,150 feet above sea level in Miami 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.

The Missouri and Kansas rivers and their tributaries heavily influence topography in the region. 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.

BROWNFIELDS

The Kansas City region has a number of properties that are contaminated due to historic industrial uses or improper management of certain chemicals. Most of the brownfield sites are located in older industrial properties of Kansas City, Missouri, and Kansas City, Kansas. The city of Kansas City, Missouri, has an established brownfields initiative, bringing diverse stakeholders together to use EPA and other resources to evaluate conditions of certain properties, plan for their reuse and support their cleanup.

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.

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 is conducting a multiyear study to assess riverbed degradation between Rulo, Nebraska, and St. Louis, Missouri, focusing on the stretch of river in the Kansas City area where degradation is the

most severe. The study assessed the causes of degradation, and explored how future degradation can be prevented to best protect public and private infrastructure.

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.

Water quality remains a persistent issue for many of the region's 7,200 miles of streams and rivers. The Blue River, for example, has over 20 identified impairments by the Missouri Department of Natural Resources and the Kansas Department of Health and Environment. Similarly, aged infrastructure in Kansas City, Missouri, and Kansas City, Kansas, requires significant investment to remediate combined sewers in each of these communities.

AIR QUALITY

The Kansas City metropolitan area typically experiences 10 to 15 days each year when air quality does not meet federal standards, primarily due to high concentrations of ground-level ozone, commonly known as smog. While the U.S. Environmental Protection Agency currently classifies the region as in attainment with air quality standards, the region has inched closer to violating the air quality standard for ozone since EPA set a new lower standard in 2015.

Ozone is formed when emissions (nitrogen oxide, or NO_x, and volatile organic compounds) from sources such as cars, lawn mowers and industry react with heat and sunlight. Ozone levels are determined by measuring ozone concentrations in parts per billion (ppb) in air samples taken at monitoring stations around the region. Monitor readings are averaged over an eight-hour period. Violations of the ozone standard — currently 70 ppb — vary with the weather. A hot, dry summer in the Kansas City region in 2018 led to 12 violations of the ozone standard, while the wetter, cooler summer of 2016 led to only two. Overall compliance with the eight-hour ozone standard is based on the three-year average of the fourth-highest ozone reading from each monitor.

HISTORIC ASSETS

Kansas City has a rich heritage dating from the nation's westward migration, and four of the nation's National Historic Trails (Lewis and Clark, Santa Fe, Oregon and California) cross the metro area. Local officials and historians worked hard over the years to protect, preserve and restore many historic assets, and a number are listed on the National and State Historic

Registers. These historic properties and sites add economic value to the surrounding area and encourage tourism to the region. A prime example is the historic assets associated with former President Harry S. Truman, with the Truman Home and Library in Independence, Missouri.

DISASTER PREPAREDNESS AND RESILIENCE

The Kansas City region's local officials have dedicated time and resources to ensure that risks to lives and property from natural and man-made disaster events are mitigated through sound planning, resource allocation and coordination, proper policy adoption and public education.

The region's homeland security and emergency services program has established a vision for a region prepared to prevent, protect, respond to and recover from a broad range of threats and hazards, including terrorism. They envision doing this through strong relationships, protocols for regional action, strong regional and local plans, sharing and coordination of resources, investment in equipment, coordinated training and exercise, improved surveillance capabilities, and early detection and mitigation of hazards and threats. To achieve that vision, local communities have worked together through MARC's Regional Homeland Security Coordinating Committee since 2003 to invest federal resources, and develop and strengthen regional capabilities.

HAZARD MITIGATION

Local cities and counties have adopted a Regional Hazard Mitigation Plan, developed by MARC for the five Missouri counties in the region, and individual county plans on the Kansas side of the state line. The nine area counties have recently initiated an update of their Hazard Mitigation Plans. The current Regional Hazard Mitigation Plan outlines actions that communities may take to reduce risks from both natural and man-made disasters. The plan supports the region's goal of a disaster-resilient community. With Community Development Block Grant (CDBG) Disaster Planning funds, MARC helped three counties that were impacted by 2010 floods develop plans to reduce risks from future flooding. MARC also prepared a model ordinance regarding requirements for basements and safe rooms as part of new housing construction.

MARC's [Climate Resiliency Strategy](#) is based upon a set of climate projections for the Kansas City region. Changes in the frequency, intensity and duration of extreme weather events, notably related to flooding and heat, create a variety of risks and vulnerabilities. Effects may impact public and private infrastructure, public health, ecosystem health, energy demand, air and water quality, and public safety. The strategy highlights the need to conduct sector-specific analyses to quantify potential risks and vulnerabilities, and to identify cross-sector mitigation

opportunities. The report also emphasizes the equity dimensions of climate resilience, given that potential impacts are likely to disproportionately affect vulnerable persons.

MARC's Green Infrastructure Planning offers one highly significant set of crosscutting benefits. A regional atlas of data layers identifies important natural resources throughout the region, and an integrated, multi-benefit planning framework outlines steps communities can take to utilize green infrastructure to mitigate impacts from wet weather and extreme heat events. Finally, a [playbook](#) shows how various applications can generate successful outcomes.

Proper planning, land management, resource allocation and policy adoption could reduce risks, lower insurance premiums, and address stress on vulnerable populations living in areas of greater vulnerability.

RECOVERY

The Kansas City region's Homeland Security Strategy Plan outlines specific goals to ensure that the region can prevent, deter, respond to and recover from disaster events. MARC provides support to local communities affected by disasters, particularly small communities. MARC offers assistance in preparing applications for federal disaster funds and in administering grants as awarded to help the communities restore basic infrastructure and services and recover from the disaster.

The strong working relationships developed throughout the region as a result of the region's homeland security work have enabled communities to respond to neighboring jurisdictions when disasters have created the need for support. Events such as tornados, floods, ice storms and heat-related power outages have affected many local communities. For many of those events, both during and following the event, communities have provided critical mutual aid.

Recent efforts underway seek to expand private sector involvement in emergency preparedness and in particular, with recovery. Many businesses lack plans to support their efforts to operate during and after a disaster event. Many businesses have resources that could support other companies and the broader community. Work is underway with the Regional Homeland Security Coordinating Committee, FEMA and others to establish stronger public-private partnerships to aid recovery capabilities in the Kansas City area. These recovery capabilities could improve the region's economic resilience following disaster events.

STRENGTHS, WEAKNESSES, OPPORTUNITIES AND BARRIERS

STRENGTHS

- Diverse economy.
- Strong regional and local economic development organizations, including the coordinated regional marketing led by the Kansas City Area Development Council
- Adequate water, wastewater, broadband, natural gas and other resources to support development and business operations.
- Good network of roads and highways to support freight and commuter transportation.
- Number of public and non-profit higher education institutions in and around the metro area.
- Strong set of programs supporting entrepreneurship (KCSourceLink, Kauffman Foundation, Bioscience Kansas).
- Modest, yet consistent population growth.
- Relatively low cost of housing (although costs are increasing). Diversity of housing choices across the region (although limited in some communities).

OPPORTUNITIES

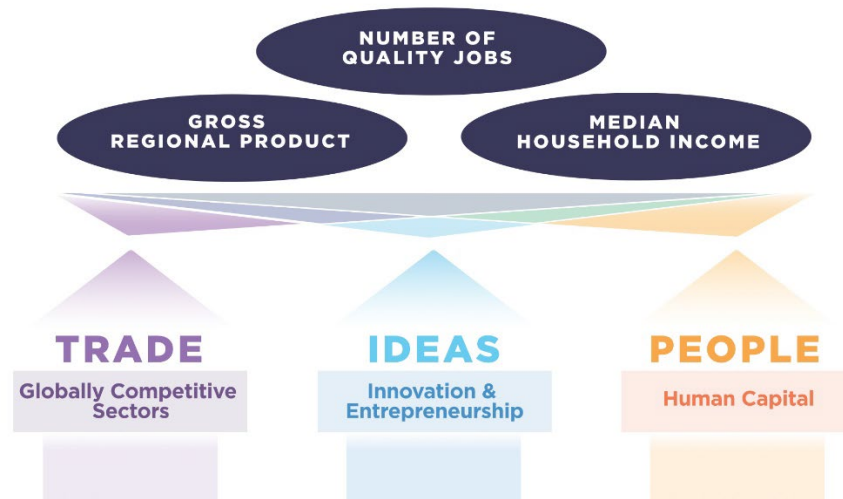
- Business sector involvement through KC Rising.
- Strong industry clusters around life sciences, engineering and architecture, animal health, motor vehicle and food production manufacturing, and other fields.
- With the growth of new pools of capital for entrepreneurs, KC could be positioned as a hub for entrepreneurial financing in the region between Minneapolis and Dallas, Denver and Chicago.
- Kansas City has a number of large corporations from a variety of industries. If an infrastructure for engagement between mid-large size corporations and entrepreneurial firms were created, forward thinking industry knowledge that exists within those corporations could be shared with entrepreneurs and new innovations could be developed.
- KC Scholars and KC Degrees programs provide information and financial resources to assist youth and adults complete post-secondary attainment.
- School districts and intermediaries establishing career centers for high school students (PREP-KC, KC STEM Alliance, Blue Valley CAPS, Northland CAPS, KC Tech Academy, Northland Innovation Center, Olathe 21st Century Academies, Independence Wall-to-Wall Academies, KC Kansas Diploma+, Excelsior Springs Reimagine High School, Summit Tech Academy, Missouri Innovation Campus and Liberty School District Innovation).
- Over 50 census tracts in the KC region have been designated as Qualified Opportunity Zones.

WEAKNESSES

- The region has few industry clusters, particularly those in traded sectors, with a high location quotient, and a competitive advantage over peer metros.
- Low state support for education — pre-K, K-12 and higher education.
- Limited federal funds to support education, particularly for disadvantaged students.
- Limited tourism to support economic activity.
- Inadequate capital for business start-up and small business growth.
- Racial and ethnic disparities, economic and racial segregation.
- Growing divide among income groups, and growth in suburban poverty.
- Large number of adults without necessary skills to fill in-demand available jobs.
- Middle age workers with at least a bachelor's degree and skills are leaving the region.
- Losing or downsizing of large companies (Sprint, State Street, Harley-Davidson, Proctor and Gamble).
- Low density dispersed development patterns make economic development and access to jobs difficult, while degrading the region's natural resources.
- Racial disparities exist in education, income, housing and health.
- Business engagement inefficient in career technical education.
- Lack of low cost housing and affordable housing near suburban job centers.
- Foreign students graduating from area postsecondary education institutions and available to work tend to leave the region for the coasts to secure employment.
- Vehicle miles traveled are increasing, leading to increased emissions that harm air quality.

BARRIERS

- Numerous political boundaries, including a state line, often complicate efforts at growing the regional economy and creating a skilled workforce.
- Limitations on use of Pell grants and availability of other resources to support training for disadvantaged youth and adults.
- Difficulty attracting immigrants who may be able to study in area higher education institutions and remain in the region filling technical jobs.



In 2014, the Mid-America Regional Council (MARC), the Civic Council of Greater Kansas City, the Kansas City Area Development Council and the Greater Kansas City Chamber of Commerce launched KC Rising, a civic partnership to strengthen the regional economy by focusing civic energy around trade, ideas and people. KC Rising focuses on increasing the region's economic competitiveness around globally competitive trade sectors, spurring innovation and entrepreneurship and addressing human capital. KC Rising's vision for a globally competitive economy aims to:

- Ensure the KC region's job and economic output growth keep pace with peer cities.
- Improve median household income to overcome two decades of sluggish growth.
- Meet local demand for educated workers, especially in STEM-related fields.
- Increase net exports as a share of the region's economy, especially through improved commercialization and firm growth in innovation sectors and industries.

KC Rising identified three key metrics to measure the region's progress, including Gross Domestic Product, Number of Quality Jobs and Median Household Income. These metrics are evaluated based on the performance of the Kansas City region compared to 30 peer metros.

The region's goal is to become a top 10-metro among its peers.

GROSS DOMESTIC PRODUCT

The region's position dropped from 15th to 17th between 2012 and 2016. The region's position in its traded sector GDP (those with export opportunities) fared better, ranking 12th among peer metros. The region's position in international exports as a percent of GDP improved from 21st to 18th.

NUMBER OF QUALITY JOBS

The region's position at 12th did not change; however, the growth in quality jobs was sluggish and the growth rate dropped from 18th to 20th fastest. High-tech industry employment showed a rank of 10th. The region's STEM occupations location quotient improved from 12th to 11th.

MEDIAN HOUSEHOLD INCOME

The region's median household income position was down to 14th from 12th. Household income is tied to educational attainment, and the Kansas City region is improving in the percent of young adults with bachelor's degrees in STEM fields (up from 28th to 19th) and the ratio of earnings between Black and white non-Hispanic workers to 5th up from 10th place.

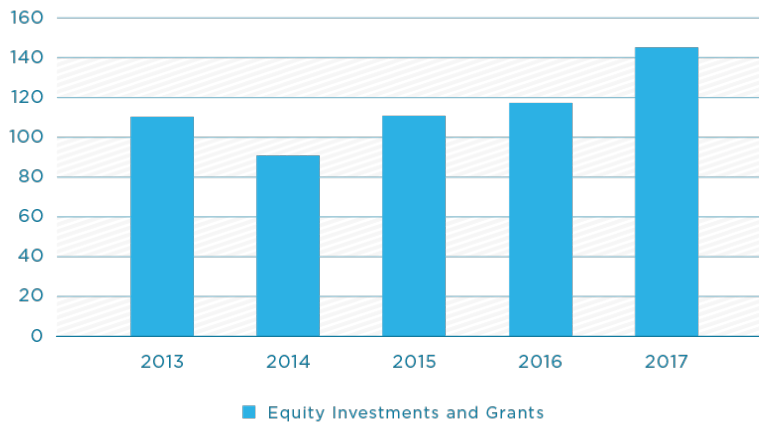
CAPITAL ACCESS AND BUSINESS SUPPORT

The cost of doing business is lower in Kansas City than in other metro areas, but access to capital continues to be a challenge according to many businesses. Kansas City has very little venture capital and does not rank among the top 20 metros in terms of venture capital investments. As compared to the Kansas City region's peer metros, it ranks 23rd in Series "A" and Angel investment and 24th in total equity capital.

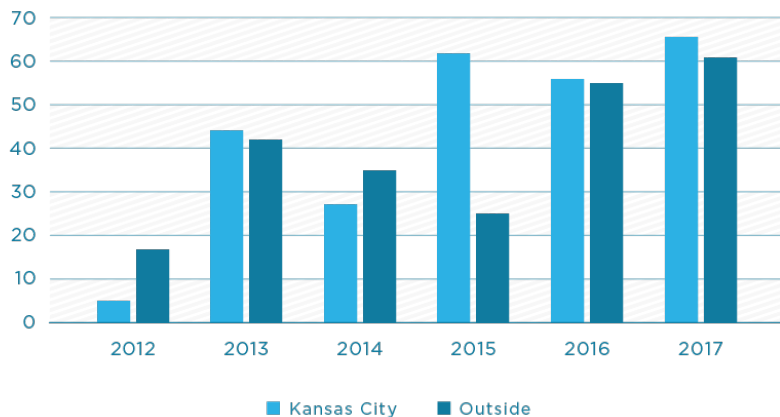
In recent years, access to capital has improved thanks to such programs as the KC Rise Fund, Invest ED and the KC Innovation Hub. The KC Rise Fund was established as a result of KC Rising's work to identify the need for investment capital for start-up businesses. The KC Rise Fund provides access to capital to early stage companies looking for \$1 million or more. KC Invest ED connects investors in the Kansas City area with resources, events and tools to learn more about investing in early stage companies

Other resources to support business growth include Network Kansas, SparkLab KC and Digital Sandbox KC. Both Kansas and Missouri have economic development departments that support recruitment and retention programs to help attract and grow businesses, although state resources have been reduced due to budget constraints. Small Business Development Centers are also a resource for business creation and growth.

Number of KC deals are at their highest in five years



KC investors outpace non-local investors



The region has more than 240 programs that support entrepreneurs ranging from pools of capital, counseling and training, mentoring, co-working, incubation space and other resources. Small Business Development Centers, Procurement Technical Assistance Centers, SCORE and a Women’s Business Center are active federal programs in the region and a variety of nonprofits, such as the Enterprise Center in Johnson County service particular niche needs in the community.

Both Kansas and Missouri have economic development departments that support recruitment and retention programs to help attract and grow businesses, although state resources for

business creation have been reduced due to budget constraints. MOSourceLink and NetWork Kansas operate as connections to resources across the respective states.

In addition to these resources, entrepreneurs list talent, a pipeline of innovative opportunities and corporate engagement as needs. Research completed in 2016 shows that Kansas City has made measurable progress in finding capital for early-stage companies and raising the awareness of the KC entrepreneurial ecosystem, but corporate engagement remains weak.

MARC supports the Regional Workforce Intelligence Network, a regional forum for workforce and economic development professionals to share real time information on the Kansas City region's economic clusters and identify steps to strengthen programs and services supporting business growth. MARC's economic development planning helps local and regional partners with critical labor market and other data in support of business development and expansion.

EDUCATION AND WORKFORCE

KC Rising has brought regional attention to the issue of increasing educational attainment and aligning education to meet the needs of the business community and preparing students for successful careers. The Mid-America Regional Council launched GradForce KC in 2014 to support post-secondary education initiatives and increase post-secondary attainment. Initially, GradForce KC was supported by a Community Partnership grant from the Lumina Foundation, which aims to have 60 percent of the US population hold an associate degree or higher by 2025.

Though the Kansas City region is holding its own in terms of college attainment compared to the nation, education is not keeping pace with job market needs. About 40 percent of current job openings require bachelor's degrees — and that percentage is expected to grow steadily — while only about 37 percent of the region's population currently has a bachelor's degree.

GradForce KC is focused on two population segments, first generation college students and adults who are returning to college to earn a high quality certificate or degree. Four initiatives designed to improve post-secondary attainment and develop a talented workforce were launched as part of KC Rising.

KC Degrees supports adults to return and finish college. In Kansas City, approximately 300,000 adults between the ages of 25 and 64 have started but not yet finished a postsecondary degree. Launched in September 2016, KC Degrees provides in-person, phone and online advisement to adults to help them navigate the process to return to college and offers continuing support as they work toward degree completion. At the same time as the KC Degrees' launch, the Ewing Marion Kauffman Foundation launched a regional scholarship program — KC Scholars. Now its own nonprofit, KC Scholars offers scholarships to both traditional high school students and to

adults returning to college. KC Scholars also offers a matching education savings plan for freshman high school students to encourage them to complete college-ready milestones.

Talent-to-Industry Exchanges (TIE) provide a comprehensive regional approach to talent development. This business-led, sector-based system is designed to improve the labor supply in key industry sectors, growing the human capital necessary to attract and retain companies in the Kansas City region. Two TIEs have been completed – one on Life Sciences and one on the Global Design sector (Engineering and Architecture). Work is getting underway on a TIE focused on Construction and Industrial Skills Trades in 2018.

Two other efforts, the Education Asset Inventory and Common Core Competencies, are helping educators and employers ensure that K-12 and post-secondary education is designed to address the demands of the workplace. The Education Asset Inventory is a tool designed to help identify gaps in postsecondary course offerings in higher education institutions across the region. The report is updated annually.

The second effort, Common Sector Competencies, is designed to clarify the skills that are valued by employers and help teachers, schools, and school districts align teaching and learning to the demands of the workplace. The intent is to create a common framework and language to advance application of the common sector competencies concept.

Two local nonprofit organizations, PREP-KC and the KC STEM Alliance, work with area high schools to develop career pathways. The Blue Valley School District's Center for Advanced Professional Studies (CAPS) sponsored by area school districts, including the Blue Valley School District and North Kansas City School District, and the Missouri Innovation Campus in Lee's Summit offer support to students to prepare them to enter the workforce or post-secondary training. Three school districts have imbedded career training into their high school curriculum – Olathe School District, Independence School District and the Kansas City, Kansas School District.

The region's three community colleges — Kansas City Kansas Community College (KCKCC) and Johnson County Community College (JCCC) in Kansas, and Metropolitan Community College (MCC) — also work closely with area employers to develop training and curriculum to better meet industry needs.

The KCADC launched ExploreKCareers.com to help residents and those interested in moving to the region to assess their skills and interest, explore fields of study and occupations and determine career pathways and possible employment opportunities. KCADC also worked to introduce the MT1 certification in 2015, a manufacturing technician certification offered

through the Lee's Summit R-7 School District at the Summit Technology Academy, Missouri Western State University, Metropolitan Community College and Kansas City Public Schools.

The Kansas City Area Life Sciences Institute worked with the state of Kansas to form BioKansas in 2004 to connect university laboratories with companies. They are working to promote workforce development among bioscience firms.

INNOVATION AND ENTREPRENEURSHIP

In one measure of innovation that has typically lagged — new patents — the Kansas City region is seeing some improvement. Patent activity has grown steadily since 2005. In 2012, the Kansas City metro generated 636 patents, up from 545 in 2010. However, there are not very many contributors to the region's patent pool. The bulk of patents are held by a small group of companies. Sprint and Sprint Spectrum accounted for nearly 300 of the region's patents in 2011. Other local companies with the most patent activity include Garmin, Cerner, HNTB and Honeywell.

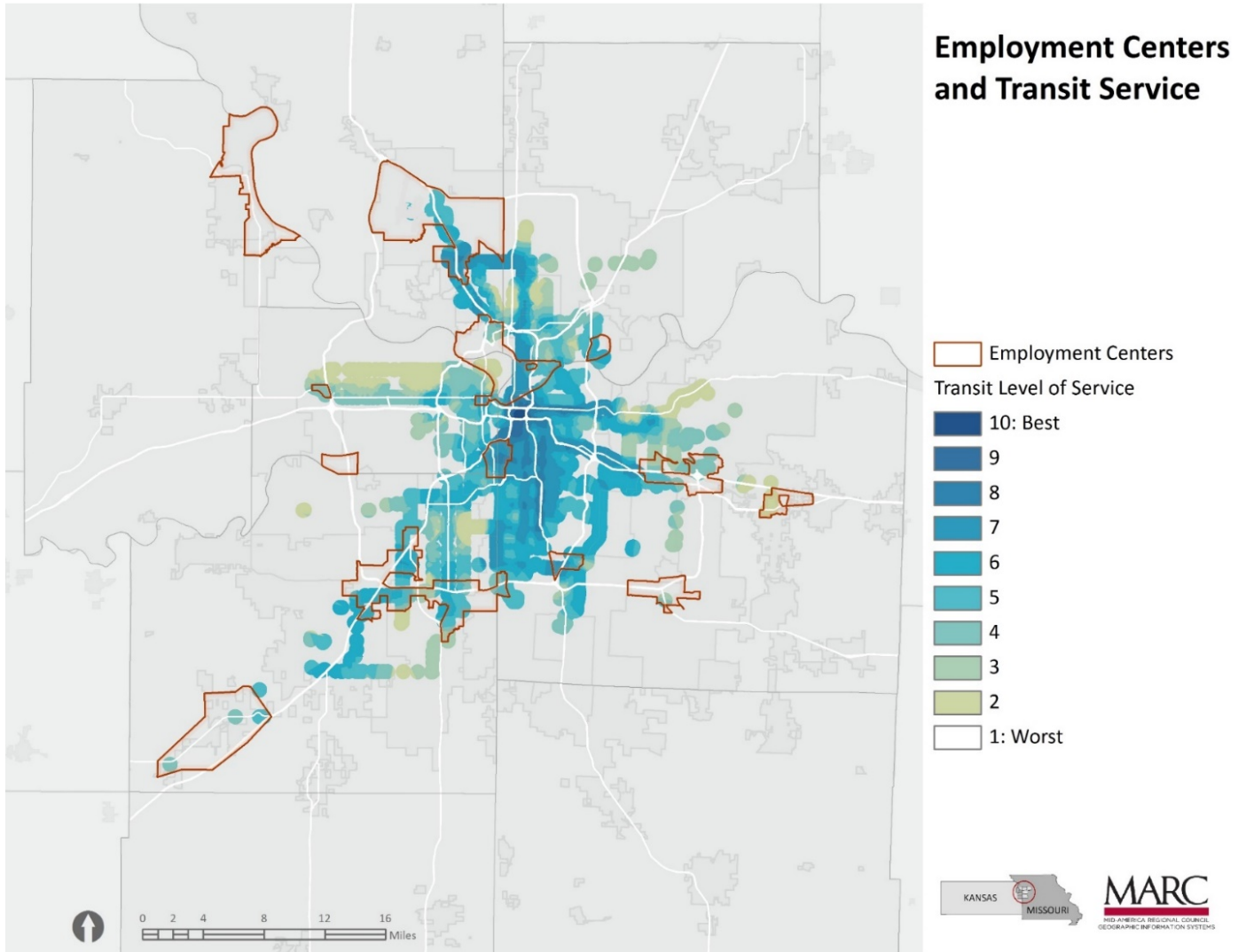
After Google Fiber selected Kansas City for its first ultra-high-speed fiber network in 2011, the entrepreneurship community has grown and is coordinating to advance technology capabilities. Since then, in addition to new capital support, new programs have entered the market to support early-stage tech ventures including accelerators such as TechStars, Sprint Accelerator and Fountain City FinTech accelerator hosted at NBKC. UMKC's Small Business and Technology Development Center, KCSourcelink, the Enterprise Center in Johnson County, Launch KC, KC Digital Drive and the Kauffman Foundation all support tech initiatives.

JOB ACCESS

The Kansas City metro area is a low-density, auto-oriented community. The core of the city has been losing population for a number of years and a significant share of the region's employment has moved to the suburbs. The metro area has one of the most extensive systems of Interstate highways in the country, which greatly facilitates the dispersal of jobs and housing.

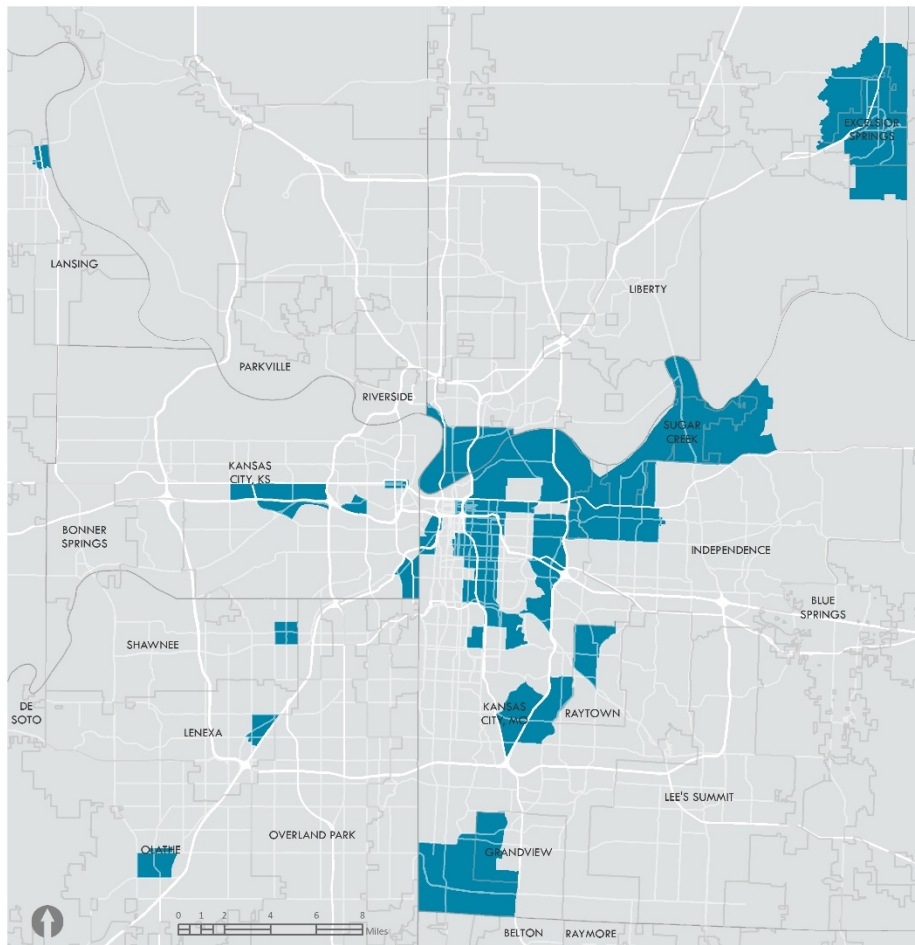
The metropolitan area has a modest public transportation system that has suffered from a lack of funding and the dispersed nature of population and jobs. According to a recent Brookings Institution analysis, only 13.3 percent of the region's jobs are accessible by a 90-minute-or-less transit trip, ranking the Kansas City region 94th out of 100 metros. Transit service levels are highest in low-income neighborhoods, where 89 percent of residents have access to public transportation; however, public transportation only serves 26 percent of places that employ low-skilled workers. Efforts to increase transportation services that connect workers to jobs will address the transportation barrier.

The following map illustrates the challenge of serving the region's job centers with public transit.



OPPORTUNITY ZONES

Under the Tax Cuts and Job Act of 2017, the federal government created an Opportunity Zone tax credit program. An Opportunity Zone is an economically-distressed area where new investments, under certain conditions, may be eligible for preferential tax treatment. Localities qualify as Opportunity Zones if they have been nominated for that designation by the state and that nomination has been certified by the Secretary of the U.S. Treasury via his delegation authority to the Internal Revenue Service. There are 55 census tract areas within the Kansas City region that have been designated by the governors of Missouri and Kansas. These areas are in Kansas City, Excelsior Springs, North Kansas City, Independence, Raytown, Sugar Creek, and Grandview in Missouri; and Leavenworth, Kansas City, Shawnee, Lenexa, Olathe and Miami County in Kansas. Investments in these zones could increase economic opportunity for residents, remove blighting conditions and create new jobs.



Opportunity Zones



New Markets Tax Credit Program Zones
www.cdfifund.gov



PERFORMANCE METRICS

INCREASED CAPACITY FOR INNOVATION AND ENTREPRENEURSHIP

GOAL 1

Objective	Metrics
Increase networked capital for start-up and early stage business growth	Increase in the amount of capital available for start-up and early stage business growth Value of investment in regional companies is increasing

GOAL 2

Objectives	Metrics
Grow technology commercialization efforts Expand research and development capabilities. Increase high-tech industry employment and firm innovation	Change in number of patents issued to area companies Increase in the number of small business start-ups

GOAL 3

Objective	Metrics
Coordinate efforts that maximize the availability, visibility use and effectiveness of entrepreneurial support resources	Increase in number of new business start-ups Increase in women and minority-owned businesses Ewing Marion Kauffman Foundation Entrepreneur Index

GOAL 4

Objective	Metrics
Position Kansas City as a hub for entrepreneurial finance in a broad region from Dallas to Minneapolis and from Chicago to Denver	Increase in the number of outside investors

GOAL 5

Objective	Metric
Increase high-tech industry firm formation and employment	Change in high tech industry employment

GOAL 6

Objective	Metrics
Increase corporate involvement in the entrepreneurial ecosystem	Level of corporate investment Number of corporate mentors

STRENGTHEN THE REGIONAL ECONOMY BY GROWING TRADED SECTORS, ATTRACTING NEW BUSINESSES AND HELPING EXISTING BUSINESSES THRIVE

GOAL 1

Objective	Metrics
Strengthen export and international trade activity within the region through Go Global and Enterprise KC, and increase exports as a percentage of GDP.	Increase in employment of major exporting industries Increase in total GDP of exporting industries Increase in average value per job in major exporting industries

GOAL 2

Objective	Metrics
Through KC Global Design, position the KC region to be a global center of excellence for top talent in engineering, architecture, and technology. Through Bio-Nexus KC (the KC Life Sciences Institute), position the region to capitalize on economic growth opportunities for life sciences research, animal health, data analytics and Collaborate2Cure.	Increase in the number of engineering and architecture jobs Increase in the number of life sciences and animal health jobs Increase in the number of manufacturing jobs, particularly those requiring technology skills Increase in STEM occupations location quotients

<p>Through KC Smart Port, continue to support growth in the logistics industry.</p> <p>Through the KC Animal Health Corridor, continue to support growth in the animal health industry.</p> <p>Continue to support growth in the manufacturing sector, particularly in those areas where the region has a competitive advantage (vehicle and food manufacturing) and areas where technology offers opportunities to attract companies to locate and grow in the region.</p> <p>Increase workforce competencies in STEM occupations.</p>	
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GOAL 3

Objective	Metrics
<p>Maintain the Regional Workforce Investment Network to conduct economic research in support of economic development.</p> <p>Prepare Talent-to-Industry Exchange processes on growing traded sectors, engaging private employers and education.</p>	<p>Increase participation in RWIN</p> <p>Talent-to-Industry Exchanges completed with Action Plan implementation</p>

CREATE AN EFFECTIVE WORKFORCE TO MEET THE NEEDS OF BUSINESS AND CREATE ECONOMIC OPPORTUNITY FOR RESIDENTS

GOAL 1

Objective	Metrics
<p>Develop effective training programs for high growth occupation areas: information technology, healthcare, manufacturing careers, distribution and engineering.</p> <p>Expand experiential learning opportunities.</p> <p>Increase the percentage of students with market-value assets, including college credit, work-based and entrepreneurial experiences, postsecondary credentials and degrees in the metro area achieved by KC area youth and adults.</p>	<p>Increase the number of experiential learning opportunities through Activate KC</p> <p>Increase the Percent of BA degrees earned in STEM fields</p> <p>Increase in Talent availability of STEM talent – hiring trends</p> <p>Ratio of black to white non-Hispanic median earnings (inclusive prosperity)</p> <p>Ratio of black to white non-Hispanic adults with BA degree</p>

GOAL 2

Objective	Metrics
<p>Promote Kansas City as a vibrant place to live with high quality careers.</p>	<p>Increase in number of participants in TEAM KC/MY KC programs</p> <p>Increase use of the KCADC Talent Toolkit to attract talent to the region</p>

GOAL 3

Create a region that is able to retain highly qualified individuals.

Objective	Metrics
Integrate new residents into the workforce and ensure that employers and communities are welcoming and culturally competent.	Increase in number of foreign-born adults in the workforce Increase in number of foreign-born adults with post-secondary degrees or certificates Positive net migration of young adults with Bachelor's degree Positive net migration of non-white young adults

INVEST IN INFRASTRUCTURE TO SUPPORT ECONOMIC GROWTH, CREATE VIBRANT PLACES AND INCREASE ACCESS TO OPPORTUNITY

GOAL 1

Objective	Metrics
Improve public transportation for residents to access jobs in employment hubs.	Increase in trips by public transit to employment centers Increase in level of private sector investment along key transit corridors and around mobility hubs

GOAL 2

Objectives	Metrics
Create and maintain a robust multimodal transportation system to serve the region's economy and make Kansas City more attractive to potential talent. Support investments in quality infrastructure for business development and expansion. Invest in technology to support economic activity at key sites and buildings to increase attractiveness to companies.	Increase in investment in public infrastructure to support economic growth Increase in investment in green infrastructure to support reinvestment

<p>Use technology to foster innovative education and workforce development</p> <p>Integrate advanced technologies into the region’s transportation system.</p> <p>Invest in water and wastewater systems to support reinvestment in urban core areas as well as new suburban areas.</p> <p>Conserve, protect and restore green infrastructure throughout the region to protect air and water quality, protect wildlife habitat, reduce flooding, protect public health, and facilitate active transportation.</p>	
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GOAL 3

Objectives	Metrics
<p>Protect the natural environment and utilize existing infrastructure.</p> <p>Support the development of a variety of housing options, both owner and renter, to meet the needs of a diverse population.</p> <p>Promote development along key transportation corridors and at key activity centers.</p> <p>Support targeted investment in disadvantaged areas that offer the opportunity for business development and an increase in household wealth.</p>	<p>Increase in supply of affordable housing</p> <p>Increase in mix of housing by type and price around employment centers</p> <p>New investment in Qualified Opportunity Zones</p>

COMMUNITY AND PRIVATE SECTOR PARTICIPATION

A number of organizations and initiatives support economic progress in the greater Kansas City area. This listing is not intended to be comprehensive, but illustrative of the breadth of regional and local efforts underway to support the goals, objectives and strategies outlined in the CEDS plan.

REGIONAL ECONOMIC DEVELOPMENT ATTRACTION AND RETENTION

Kansas City Area Development Council (KCADC) represents the economic development interest of the greater Kansas City region (18 counties in Missouri and Kansas). KCADC brands the region as one location to stimulate economic growth and enhance awareness of the metro area's assets. KCADC promotes the region as the business location of choice and as one that offers a high quality of life for talent to move to the Kansas City area.

- **KC SmartPort** is a nonprofit economic development organization and the region's authority on logistics, promoting the region as a leading North American logistics hub. KC SmartPort's mission is to grow the Kansas City area's transportation industry by attracting businesses and make the industry and the region more competitive in the movement of goods in and out of the region.
- **KC Next** – the Technology Council of Greater Kansas City – promotes the region's tech sector and recruits firms to the region by building connections and industry advocacy.
- **Animal Health Corridor/Forum** is an initiative to support animal health companies in and around the Kansas City region from Manhattan, Kansas, to Columbia, Missouri. The initiative supports programs to bring companies together to strengthen the industry sector and advocate for state and federal legislation to advance the corridor's assets.
- **Team KC** is an initiative to attract and retain top talent by offering resources (Talent Toolkit) to area companies. A Network of top recruiters in the region work to build a career network, promote diversity and inclusion and support a summer youth program.

Greater Kansas City Chamber of Commerce

- **Foreign Trade Center** participates in the Brookings Institution Global Cities Initiative. The FTC has a regional export market plan, has an inventory of companies exporting from the region, offers custom reports and has a concierge service to support export promotion for area businesses.
- **Business Development** – Hosts an annual Small Business Celebration; supports a Diversity Equity and Inclusion Task Force, and is working with national groups to create a more welcoming environment for immigrants.
- **Big 5 Initiatives** – Chamber has identified major initiatives, including kindergarten readiness, urban neighborhood revitalization, transportation, entrepreneurship and the arts.

Bionexis KC, formerly known as the Kansas City Area Life Sciences Institute, brings companies and business support organizations together to advance the animal and human health research, manufacturing and related sectors in the metro area. The regional concentration of animal and human health research and manufacturing companies uniquely positions the area to capitalize on economic growth opportunities where these industries

intersect. The latest effort to emerge is a new series of events, called **Collaborate2Cure**, designed to bridge the research and expertise between human and animal health.

LOCAL ECONOMIC DEVELOPMENT AGENCIES

There are multiple local economic development agencies in the region that promote economic activity and work to attract new companies or help existing companies expand or address challenges to support retention. A number of economic development offices are part of city and county government. The following are separate organizations, working in close collaboration with local governments.

Missouri side

Cass County Corp. of Economic Development

Clay County EDC

Black Economic Union

EDC of Kansas City, MO

Hispanic Economic Development Corp.

Independence Council for Eco. Dev.

Lee's Summit EDC

Port KC

Platte County EDC

Kansas Side

DeSoto EDC

Johnson County Airport Commission

Lenexa EDC

Olathe EDC

Overland Park EDC

Shawnee EDC

Southwest Johnson Co EDC

Leavenworth Co Dev. Corp.

Miami County EDC

Wyandotte EDC

Launch KC is sponsored by the Kansas City EDC, and is designed to provide policy and marketing guidance for a sector specific recruitment and expansion initiative that will qualitatively change the perception of Kansas City's capabilities for emerging innovation technology companies, and for public sector incentives. The function of Launch KC is to focus the attention of new and emerging firms to Kansas City on the Crossroads area (and the greater downtown) as a specific area that currently provides exceptional data transmission capabilities, a youth-oriented quality of life, and a reputation for creativity.

Ennovation Center - The Independence Regional Ennovation Center is a mixed use business incubator which focuses on three core areas for the development of new businesses -bio-tech, kitchen/culinary, and business & technology. Located in Independence, Missouri, the Ennovation Center has transformed the former Independence Regional Medical Center into a launching pad for entrepreneurs with the necessary facilities and support services to assist successful start-up businesses in an innovative environment which fosters collaboration.

INNOVATION AND ENTREPRENEURSHIP/BUSINESS START-UP

UMKC Innovation Center offers a number of programs to help businesses become established and grow, with a specialization in technology commercialization. The Innovation Center delivers just-in-time education, counseling and access to resources to aspiring and existing business owners resulting in increased jobs for the communities it serves.

- **KC SourceLink** helps small businesses in the 18-county Kansas City region grow and succeed by providing them with easy access to assistance through a network of 170+ nonprofit and public organizations that provide business-building services for small businesses. KC SourceLink facilitates the linking of these resource organizations to one another and to established, emerging and start-up small businesses throughout the region.
- **Digital Sandbox KC** provides information technology innovators with proof-of-concept resources to support early-stage commercialization processes. The Sandbox may cover expenses for project consultants, market research, legal support, equipment and other market validation, prototyping and beta testing needs.
- **Whiteboards 2 Boardrooms** is a team effort that includes research partners that provide the new technologies, a technology transfer office that collects technologies from research partners and helps with initial assessment and IP issues, entrepreneurs with a depth of expertise and experience in different technical domains that utilize a variety of business models, W2B staff members that serve as "match-makers", and service providers that assist with business connections to facilitate startup development.
- **KC Rise Fund** is a co-investment fund which invests institutional Venture Capital investors in early stage companies based in KC. KC Rise Fund portfolio companies benefit from the diligence and industry talents of investment professionals all over the US, including the KC area.
- **KC InvestEd**, in partnership with KC SourceLink and an advisory board of KC area civic leaders, is dedicated to supporting the development of local investments, connecting investors to improve deal visibility, connecting deals to investors and bringing visibility to KC-based deal flow ready for institutional investment from outside the KC region.

Entrepreneurship Center of Johnson County - Selected as one of five organizations to form the Entrepreneurs' Policy Network, the ECJC aims to reduce barriers to new business creation and entrepreneurship in Kansas. To do this, the ECJC is building a statewide coalition of policy partners, engaging and educating lawmakers, and interfacing entrepreneurs with lawmakers to build positive working relationships. The goal of this advocacy initiative is to support entrepreneurship as a statewide economic development priority in Kansas.

Manufacturing Extension Partnerships - Mid-America Manufacturing Technology Center (MAMTC) and Missouri Enterprise are the region's National Institute of Standards and Technology Manufacturing Extension Partnership (NIST MEP) organizations. MAMTC serves Kansas and Missouri Enterprise serves that state of Missouri. Both MEP's deliver solutions for Kansas manufacturing companies by providing technical assistance to implement technology to help resolve process challenges and evaluate products or parts for potential improvements in labor costs, accuracy and materials used. The following services include: Innovation Engineering, Workforce training, supplier development, continuous improvement, ISO and AS 9100 Certification and Six Sigma training, Energy Management

KC Innovation District is a redevelopment initiative focused on creating a place where entrepreneurs, research institutions, students and corporations can collaborate to generate impact and workforce readiness. Following a market analysis supported by the Civic Council of Greater Kansas City, the Keystone Community Corporation, a 501c3 nonprofit organization, reached agreement with the Kansas City Area Transportation Authority for the redevelopment of properties around 18th and Troost in an Opportunity Zone in Kansas City.

KC Digital Drive is a 501c3 non-profit organization whose mission is to make Kansas City a digital leader to secure economic prosperity and improve the quality of life for all people in the region. KCDD accomplishes this by: Closing

the Digital Divide to connect everyone to affordable broadband Internet, and make emerging technology equitably accessible. Driving Digital Innovation to give everyone the opportunity and resources to create new technology ventures and applications that will improve lives and grow the economy. Building Kansas City's Reputation to make Kansas City a capitol of civic innovation and thoughtful adopter of technology known the world around.

WORKFORCE INVESTMENT BOARDS

Full Employment Council is a nonprofit organization that administers two workforce investment boards serving the region's five Missouri counties, including Kansas City, Missouri. Programs include Missouri WIA Economically Disadvantaged – Adult and Youth Programs, WIA Dislocated Worker/Displaced Homemaker, and Temporary Assistance to Needy Families.

Workforce Partnership is the local workforce investment board serving Johnson, Leavenworth, and Wyandotte counties in Kansas. It has a network of career centers in the three county area.

Southeast Kansas Works is the local workforce investment board serving Miami County, Kansas. The organization has a career center in Paola.

K-12 INTERMEDIARIES

PREP-KC is a 501(c)3 funded by a collaborative of corporate, private and family foundations to increase college-going and access to high-quality employment for the over 60,000 mostly low-income students served by six of bi-state Kansas City's urban school districts. PREP-KC serves the bi-state Kansas City region with a focus on urban school district partnerships. By maintaining this focus, PREP-KC has the opportunity to support improvements in student outcomes for school districts that serve mostly low-income students, many of whom are first-generation college-goers.

The **KC STEM Alliance** is a collaborative network of educators, business affiliates and organizations that inspires interest in Science, Technology, Engineering and Math careers to generate a robust force of related professionals for our community. KC STEM provides a shared services model for STEM programs, such as Project Lead the Way and FIRST, coordinating data collection and program evaluation as well as facilitating school and industry partnerships.

The **KC Social Innovation Center (KCSIC)**, in partnership with Kansas City, Missouri Mayor's Office, Kansas City Public Library, and KC STEM Alliance, launched the LRNG KC pilot in Summer 2016 with the goal of connecting 10,000 youth to engaging learning experiences that will inspire youth while providing 21st century skills and career pathways to opportunity. This means the KCSIC will manage and organize local efforts with the national LRNG movement. LRNG KC will build partnerships between existing community resources on and offline to help the city's youth learn anywhere and anytime.

HIGHER EDUCATION

There are a number of higher education institutions serving the Kansas City region, including three community college systems – Metropolitan Community College (five campuses), Johnson County, Kansas, Community College,

and Kansas City, Kansas, Community College. There are XX public and not-for-profit higher education institutions serving the metro area, including

Metropolitan Community College is a five-campus community college system serving a 50-mile radius area around Kansas City. More than 30,000 students are enrolled in credit coursework and another 12,000 in career workforce programs each year. With a 95-year tradition of providing affordable, quality education, connecting with the community, and powering workforce and economic development, MCC tuition is only one-third that of public four-year colleges. Collaborative relationships with more than 30 four-year colleges and universities provide easy credit transfer. The MCC student population is categorized as disadvantaged: within the Associate Degree program, 51 percent of students are classified as ethnic minority, socio-economically or educationally disadvantaged. Approximately 80 percent of students are in need of developmental education support. No other area college is as diverse. Students represent high school graduates, GED recipients, single parents, older returning students, and international students. Working students are the norm; 78 percent are employed. More than 27 percent are people of color; 43 percent are the first generation in their family to attend college.

Johnson County Community College has over 34,000 students enrolled in credit and continuing education classes, JCCC is located in Overland Park, Kansas is the third largest institution of higher education in the state. JCCC offers undergraduate credit courses that form the first two years of most college curricula and features more than 50 one- and two-year career degree and certificate programs which prepare students to enter the job market. Professional continuing education is offered to individuals required by state licensing boards, certifying agencies and professional associations to obtain continuing education units (CEUs).

Kansas City Kansas Community College is a public, urban, open-door, and comprehensive community college committed to excellence in higher education. Through an accessible and supportive learning environment, the college mission is to provide higher education and lifelong learning to the varied communities, primarily in its service area of Wyandotte and Leavenworth counties in Kansas. The total enrollment at the college is 7,000 students. Kansas City Kansas Community College (KCKCC) has received a TAACCCT grant from the Department of Labor to create the Training for Employment (T4E) program. T4E will focus on programs in construction (electrical, heating and refrigeration, building and property maintenance) with value added through additional green technology training (material reuse and recycling, lead, LEED, and environmental remediation); and advanced manufacturing (machine technology and welding).

The **University of Central Missouri** main campus is located in Warrensburg, Missouri and hosts more than 11,000 students each year. The Summit Center in Lee's Summit, Missouri offers workforce development programs and helps individuals obtain their bachelor's or master's degree. The state-of-the-art UCM Summit Center provides evening classes complemented with online and interactive classes.

The **University of Kansas Edwards** is located in Overland Park, KS. Courses at the Edwards Campus earn the same credit as those taught on the main campus in Lawrence, Kan. with students earning KU degrees. They have a wide variety of graduate and undergraduate degree completion programs for students to choose from and provide late afternoon and evening classes to help students balance the responsibilities of work and family.

The **University of Missouri–Kansas City** is a public research university located in Kansas City, Missouri. It is a part of the University of Missouri System. The academic divisions of UMKC are the College of Arts and Sciences, the School of Education, the School of Nursing, the School of Management, the School of Medicine (one of six in Missouri), the School of Law (also one of only four in Missouri), the School of Computing and Engineering, the

School of Biological Sciences, the Conservatory of Music and Dance, the School of Dentistry, the School of Graduate Studies, and the School of Pharmacy.

Kansas State University is a three-campus system, and **K-State Olathe**, is the newest member of the family. Complementing the main campus in Manhattan and the College of Technology and Aviation in Salina, the Olathe campus is the academic research presence within the Kansas Bioscience Park, leveraging K-State's broad capabilities and its many resources on the Manhattan campus.

Northwest Missouri University has a campus in Gladstone at the Northland CAPS building offering students the opportunity to complete degrees or advance their education.

Park University is a private non-profit university headquartered in Parkville, with over 60 online programs and 41 campus centers. Park offers degree programs in Accounting, Criminal Justice, Business, Social Work, Communication and Leadership, Psychology and Public Administration.

Avila University, a Catholic nonprofit university in south Kansas City, offers 60 undergraduate and 6 graduate programs.

Rockhurst University, a Jesuit institution established in Kansas City in 1910, offering a liberal arts curriculum. The university offers the School of Management and an Executive MBA program as well as masters and doctorate degrees in occupational and physical therapy, education and speech pathology.

Western Governor's University was established in 1997 to support affordable online learning by students in partnership with states. The WGU Missouri was established in 2013 through an agreement with the state of Missouri. The online programs provide affordable, accessible competency-based programs that address key workforce needs.

Baker University is a public nonprofit university in Baldwin City, Kansas, serving traditional and non-traditional students with degree programs in four schools – arts and sciences, nursing, education, and professional and graduate studies.

Lincoln University is a land grant public university established in 1866 to serve African-American students. Today, the university offers undergraduate and graduate programs in nursing, education business, arts and sciences and agriculture, environment and human science.

University of Missouri – Columbia is a public research university established in 1839, and offering over 300 degree programs with 90 online options through 19 colleges and universities. MU is one of only six public universities nationwide that can claim a medical school, veterinary medicine college, and a law school on the same campus.

KC Scholars offers scholarships to high school students and adult learners to support post-secondary attainment, and offers a college savings plan for middle school students. The scholarship program was launched in 2016, and to

date, has awarded scholarships and savings plan contributions to over 2, 900 first generation college goers and disadvantaged students in the greater Kansas City region. KC Scholars works with 17 public and non-profit colleges and universities in the KC metro area.

KC Degrees provides assistance to adults who started college but did not finish to be able to return and complete a degree or high quality certificate. The program, sponsored by the Mid-America Regional Council, launched in 2016 in collaboration with KC Scholars, and has served over 1,000 adults, with 432 currently enrolled in an area college.

STRATEGIC PROJECTS, PROGRAMS AND ACTIVITIES

The Kansas City region has an extensive list of projects for which funding is needed to advance the region's economy. These projects range from the new Kansas City International Airport terminal to the new Buck O'Neil Bridge over the Missouri River to a Kansas City Streetcar extension to new and expanded wastewater treatment facilities in Louisburg, Kansas City, Missouri, and the Tomahawk sewer plant in Leawood.

Infrastructure

The region maintains a long-range transportation plan, Transportation Outlook 2040, which identifies surface transportation investments needed to support a growing economy and enhance the region's quality of life. Work is underway on a new plan, **Transportation Outlook 2050**, and local governments, transit providers and state transportation departments are identifying projects needed for the next three decades. Among the investments are a new Missouri River bridge, the **Buck O'Neil Bridge** and the expansion of the **KC Streetcar system**. Work is underway to secure needed resources for both of those projects. In addition, according to Dodge Reports, there was approximately \$1 billion worth of non-building public and utility construction underway in fall 2018.

Numerous projects to expand and build new facilities and reinvest in aging water and sanitary sewer and stormwater systems are underway throughout the region. The projects range from new facilities to expand capacity to growing parts of the region to replacement of aging infrastructure to improve system performance and address problems. Kansas City, Missouri, and Unified Government of Wyandotte County, Kansas, are working to address a combined sewer system issue. A number of local governments work in cooperation with the US Army Corps of Engineers to address major stormwater and water quality projects involving major waterways.

A new regional transit plan was adopted in 2018, **Smart Moves 2.0**, that outlines improvements in the region's transit systems over the next 20 years. Fixed guideway transit is an element of the overall regional public transit plan, and expansion of the KC Streetcar is in development. A public ballot initiative has been approved by Kansas City, Missouri, voters, and the KC Streetcar Authority is seeking federal funds to support the system's expansion from Union Station sound to the University of Missouri-Kansas City and Country Club Plaza area.

As businesses and residents rely on technology for daily operations, the need for **high quality broadband services** continues to be a need in many parts of the region, particularly rural areas. This technology offers the opportunities to enable small business start-up, efficient agricultural operations, and improved access to education and health care services.

Other Public Investment – Major investments underway in the Kansas City region include the construction of a new terminal and parking for the **Kansas City International Airport** and a new **Johnson County, Kansas,**

Courthouse. The Mid-Continent Public Library has recently issued bonds for major projects to expand library facilities and services in their service area on the Missouri side of the metro area.

Private Investment - Private commercial and industrial development projects in the planning stages are monitored by MARC through a commercial database, Co-Star. As of fall 2018, there was 76 million square feet of non-residential projects proposed in the KC metro area. Of that total, 20 million square feet of space was under construction. Advent Health has a new **hospital** under construction in southern Johnson County. The University of Kansas Medical Center has a major north **hospital** facility under construction in Wyandotte County.

Opportunity Zones - A number of census tracts in the Kansas City region have been selected as Opportunity Zones. Efforts are underway to identify investment possibilities within these areas. One of the Big 5 initiatives led by the Greater Kansas City Chamber of Commerce, the Urban Neighborhood Initiative, designed to support reinvestment in central Kansas City, is working with community partners to encourage investment in new Opportunity Zones within the region.

Experiential Learning – Align KC – Efforts are underway to expand the number of and access to experiential learning opportunities for high school and college students, increasing their knowledge and skills to meet the needs of area employers for talent.

APPENDIX A: OVERVIEW OF MARC

The Mid-America Regional Council, commonly referred to as MARC, serves as the association of city and county governments and the metropolitan planning organization for the bistate Kansas City region. MARC seeks to build a stronger regional community through cooperation, leadership and planning. Through MARC's leadership, area jurisdictions and diverse community interests sit down together to address the regions problems and identify the opportunities for cooperative solutions. These efforts, in turn, enhance the effectiveness of local government.

As a voluntary association, MARC strives to foster better understanding and cooperation on issues that extend beyond the jurisdiction of a single city, county or state. These issues include transportation, early education, older adult services, emergency services and homeland security, public safety communications, environmental protection, health care, economic development, sustainable development and others.

MARC's Board of Directors consists of 33 locally elected leaders representing the nine counties and 119 cities in the bistate metropolitan Kansas City region. MARC plays an active leadership role in strengthening the metropolitan community by providing:

- A forum for addressing regional objectives and diverse community issues.
- Long-range planning and public policy coordination.
- Technical assistance and services to enhance the effectiveness of local government.

TRANSPORTATION

MARC is the metropolitan planning organization (MPO) for the bistate Kansas City region. Federal highway and transit statutes require urbanized areas greater than 50,000 in population to designate MPOs as a condition for spending federal highway or transit funds. As the MPO, MARC receives federal funds to develop regional transportation plans and programs and to coordinate technical and policy studies on a wide range of transportation issues, working in cooperation with the Kansas and Missouri Departments of Transportation, local governments and transit providers.

MARC's transportation planning activities serve Cass, Clay, Jackson, Johnson, Leavenworth, Miami, Platte and Wyandotte counties. MARC works with these communities, identified stakeholders and the public to plan for improvements to the region's surface transportation system over the next 30 years as well as recommending investments through available federal and state grant funds.

The primary products of the transportation planning process include:

- The region's long-range Metropolitan Transportation Plan.
- The Transportation Improvement Plan (TIP), a listing of projects recommended for federal and state transportation funds to support achieving the long-range plan.

- A Congestion Management System (CMS), a plan to reduce congestion on major highways and roadways.
- Regional Intelligent Transportation System (ITS) Architecture, a plan to use technology to better manage the region's transportation system, including KC Scout, a freeway management system, and Operation Green Light, a synchronized traffic signalization project on major thoroughfares.
- The Smart Moves Plan, a long-range plan for the region's public transit system.
- A Regional Transportation Safety Blueprint
- A Green Infrastructure Plan, which includes MetroGreen, a regional greenway trails system
- The Regional Bikeway Plan, a facility plan for non-motorized transportation.

Together these documents provide a blueprint for the development of the region's transportation system and direct the expenditure of federal funds for highways, transit, bikeways and other modes of transportation.

MARC's transportation department also oversees a grant program, Planning Sustainable Places, to fund local projects that support the vision of a more vibrant, connected and green region through a centers-and-corridors strategy; special transportation programs that support disadvantaged populations, including the elderly, low-income and disabled; and a RideShare program to promote commuter options as well as alternative modes of transportation.

Maintaining the region's transportation infrastructure is critical to continued economic growth and development for the Kansas City area. The region's prominence as a major transportation hub, its growing logistics industrial sector, and the need for workers to travel to and from employment centers are all factors in the region's transportation planning work.

COMMUNITY DEVELOPMENT

MARC supports a coalition of officials from inner-ring suburbs that works on housing and commercial revitalization in those portions of the Kansas City region developed just prior to or following the second World War. The First Suburbs Coalition developed a marketing strategy to encourage reinvestment, and have recently secured support from the National League of Cities to address a growing workforce housing challenge that limits businesses from finding and keeping the talent their need to locate and expand their businesses. The older suburbs continue to work on the reinvestment of older suburban strip centers.

Since 2010, MARC has worked with a consortium of more than 60 regional partners on the Creating Sustainable Places initiative, which promoted our shared vision for a sustainable region — one that balances a thriving economy, social equity and a healthy environment, meeting today's needs without compromising the needs of future generations — and a strategy for moving communities from planning to action. The centers and corridors strategy has become a center element of the region's long-range transportation plan, and is guiding investments at the local and regional level to focus development and increase densities.

MARC receives funds from the U.S. Economic Development Administration and has been designated as an Economic Development District for the Kansas City metro area. MARC provides support to local agencies and organizations seeking to plan for, design and implement investments that address economic distress within the metro area. MARC maintains this Comprehensive Economic Development Strategy Plan (CEDS) to support the region's economic development efforts.

WORKFORCE DEVELOPMENT

MARC convenes the Regional Workforce Intelligence Network of Greater Kansas City (RWIN), a regional workforce and economic data exchange system, to encourage greater collaboration among the region's workforce data and information professionals.

RWIN is a collaboration of economic development professionals, one-stop centers, workforce centers, community colleges and universities that meets on a quarterly basis to share information on current workforce development activities. The network provides input on real-time labor market reports, sector partnership development and other workforce development activities in the region.

MARC also convenes GradForce KC, focused on increasing post-secondary attainment for the region's population, particularly disadvantaged youth and adults. From this regional convening, MARC established KC Degrees to help adults who began a post-secondary experience to complete a high quality technical credential or a degree to increase their economic opportunities. KC Degrees partners with 17 public and non-profit colleges and universities and a significant scholarship program, KC Scholars, to make post-secondary attainment affordable and connected to in-demand jobs.

In 2016, MARC partnered with the Civic Council of Greater Kansas City, the Kansas City Area Development Council and the Greater Kansas City Chamber of Commerce to launch KC Rising, a business-led initiative to grow the region's economy by focusing on traded sectors, innovation and entrepreneurship and increasing a trained and prepared workforce. The KC Rising work led by MARC has focused on developing consensus among partners on metrics to measure economic progress (which have been incorporated into the new CEDS) and the human capital work.

MARC has supported three Talent-to-Industry Exchange projects focused on the Life Sciences industry, the Global Design industry (architecture and engineering), and the Skilled Trades industry (construction and other skilled trades). The TIE process engaged employers and educators focused on identifying skills needed to meet business demands, and ensuring that the region's educational system is aligned with those requirements. Three labor market analyses and action plan reports were produced for these TIEs. Additional TIE work is currently underway to address workforce challenges in information technology and the public sector. MARC has received federal and private foundation funds to support workforce development efforts and promote more effective training and education with secondary and post-secondary educators and programs that serve adult and dislocated workers.

CITIZEN ENGAGEMENT

MARC supports a citizen engagement initiative that brings citizen input into local decision-making processes and helps the Greater Kansas City region find common ground on important issues. MARC uses workshops, online communities, blogs, social media and surveys to engage the public.

LOCAL GOVERNMENT SERVICES

The Government Innovations Forum was created when an organization of city and county managers and administrators from the Greater Kansas City metropolitan area committed to support a full-time staff person at MARC to manage communications between managers and jurisdictions and follow through on Roundtable ideas and initiatives. Supported by contributions from more than 40 cities and counties, the Government Innovations Forum provides staff support to the Managers' Roundtable and its initiatives and connects members with a variety of regional research and decision-making mechanisms.

The Government Training Institute (GTI) provides targeted cost-efficient, high quality training services to local governments and nonprofit partner organizations. GTI provides training to 7,500 employees and officials on an annual basis. The training programs include leadership development, workshops for planning commissioners, technical environmental training, computer skills, certificate programs and customized training.

MARC's Small Cities Program provides administrative, planning and informational resources to smaller local governments. There are 90 cities in the region with populations under 10,000, and only 23 of these cities employ a city manager or administrator. It is increasingly difficult for smaller cities to address the problems that confront their communities due to limited resources. The Small Cities Program supplements local staff with resources, while focusing on a limited number of issues and program areas. Included in the Small Cities Program are:

- Initiatives to help communities gain access to state and federal programs through grant writing and grant management services.
- Information on planning techniques for infrastructure development, economic and community initiatives.
- Training on the use of economic development tools to take advantage of private funding opportunities.
- Assistance with best practices, policy writing and a master contract for goods and services.
- Identification of revenue sources, use of special improvement districts and budget structure.
- Mapping support services.

Other local government services include the Kansas City Regional Purchasing Cooperative and a new shared services program that allow cities to access building department services through a contract with the Institute of Building Technology and Safety and to explore and expand shared services to support efficient local government and economic progress.

RESEARCH SERVICES

MARC's Research Services Department provides various services to member cities and counties and regional initiatives. These services include data and research, Geographic Information Systems (GIS) and mapping, and information technology. Resources available to support economic development in the metro area include:

- **KC Economy** — A blog-based source for economic information for the Kansas City Metropolitan Area. MARC uses this forum to provide recent data and analysis to keep stakeholders up to date on Kansas City's economy.
- **Metro Dataline** — Data on the region's population, economy, social characteristics, and other areas, as well as maps of the region are housed on the Metro Dataline Web site. In addition, Metro Dataline provides unique reports from MARC's Research Services staff, and links to other major sources of data about the Kansas City region.
- **Geographic Information Systems (GIS)** — Local governments use GIS every day to assist regional planning efforts in the areas of transportation, environment and emergency services. MARC supports collaboration between area governments on cross-jurisdictional GIS/mapping projects and cost-sharing endeavors.
- **Publications** — The Research Services Department publishes a wide variety of reports, including the annual Greater Kansas City Economic Forecast and the Long-Range Forecast. MARC has worked with the Ewing Marion Kauffman Foundation to publish both reports and online tools to share a public survey on quality of life factors important to the region.

ENVIRONMENTAL PROTECTION

MARC's primary environmental program areas of air quality, watershed management, solid waste management, energy and green infrastructure bring community partners together to address regional environmental issues in a cooperative setting. Each program includes a strong educational component based on the concepts of smart growth and sustainability, with messages directed at a variety of groups and audiences. MARC also works with several broad-based environmental initiatives that cut across program lines to achieve multiple objectives, including:

- The Kansas City Environmental Education Network works with environmental educators and organizations to expand environmental education in the region.
- The Natural Resources Inventory (NRI) uses digital map data to study valuable natural resource assets and ecological features in the Kansas City region.
- The region's green building program encourages more environmentally-sensitive design and construction practices.
- The Regional Green Infrastructure Plan provides tools to help growing and established communities with land use practices, zoning policies and funding resources.
- Creating Sustainable Places identifies how smart growth planning concepts may be applied to the Kansas City region. The Planning Sustainable Places program integrates these concepts with transportation investments.

- The Solar Ready KC initiative helped streamline local government permitting and planning processes, explore financing options and identify best practices in implementing solar energy in order to make it easier for residents and businesses to use solar energy.

EMERGENCY SERVICES, HOMELAND SECURITY AND PUBLIC SAFETY COMMUNICATIONS

MARC has provided support to the region’s emergency services agencies for over 30 years, bringing officials together to develop plans, protocols and programs, and to manage local, state and federal resources. MARC coordinates the region’s 9-1-1 communications system, ensuring a high-quality means for the public to access emergency response.

MARC administers the region’s homeland security funding, ensuring the region is working toward enhancing capabilities to reduce risks from and respond to all hazards, including those caused by terrorist acts. MARC also supports the Mid-America Local Emergency Planning Committee, charged with bringing industry and emergency response agencies together to reduce risks from hazardous chemical releases, and coordinates pre-hospital emergency care with hospitals and ambulance services. MARC’s work with community organizations and local emergency management has expanded with support from a Margaret A. Cargill Foundation grant to increase the resiliency of organizations serving vulnerable populations and their clients through planning, communications, training and exercises.

EARLY EDUCATION

Since 1989, MARC has worked with community partners to develop a system of high-quality early education programs and services in metropolitan Kansas City. Early education is important to ensure that all young children have the skills and support necessary to enter school ready to succeed.

Since 2005, MARC has served as the grantee for Mid-America Head Start (MAHS), serving Clay, Jackson and Platte counties in Missouri. MAHS ensures quality services for about 2,400 children and their families each year.

MARC’s early education program advocates for community support and adequate funding to ensure that all families have access to quality early learning programs, particularly children from lower income working families that need support to enter or remain in the work force. As the need for early education expands, MARC’s early education program is focused on increasing the number of trained professionals entering and remaining in the profession.

HEALTH CARE ACCESS AND NUTRITION

MARC is addressing ways to provide effective health care for citizens who do are uninsured or underinsured. The initiative’s current work involves:

- Developing a new workforce, Community Health Workers, to connect patients with community-based services to improve their health outcomes.
- Increasing access to health care services for those currently uninsured.

In partnership with a number of organizations, MARC is managing a large USDA grant and private foundation resources to help SNAP recipients from Salina, Kansas, to St. Louis, Missouri, access fresh produce at grocery stores and farmers markets through an incentive program. The \$5.9 million program ends in December 2019, and work is underway to secure funds to continue and further expand the program throughout Missouri and Kansas.

AGING SERVICES

MARC's Department of Aging Services functions as the Area Agency on Aging for Cass, Clay, Jackson, Platte and Ray counties in Missouri. Area Agencies on Aging (AAAs), created through the Older Americans Act of 1965, advocate for, design and implement programs to meet the unique needs of older citizens within the counties they serve.

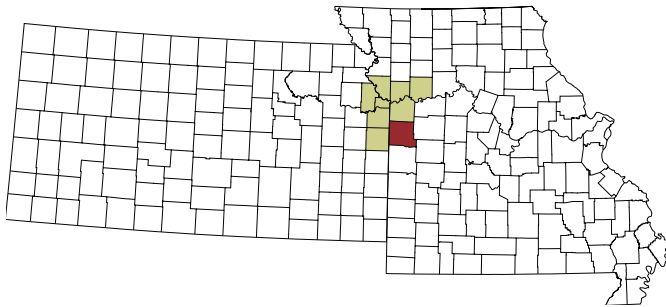
MARC coordinates a wide variety of services for older adults and their caregivers, including congregate and home-delivered meals, transportation services, case management services, an information and assistance phone line, and a volunteer ombudsman program for residents of long-term care facilities.

MARC is working with area hospitals, health insurance plans and others to launch a Managed Services Network, focused on helping patients with chronic disease receive community-based services and avoid higher cost hospitalization or other health care services.

In 2012, MARC took on leadership of KC Communities for All Ages, an initiative working to ensure that the region is prepared to meet the needs of an expanding older population. The initiative has accelerated local efforts to make area communities age-friendly places to grow up and grow old, publishing a toolkit for local governments and a recognition program for cities to earn a Communities for All Ages designation based on steps taken from policy to programs to infrastructure investment.

Appendix B: County Profiles

Cass County, Missouri



QUICK FACTS:

2017 Population: 103,724

- 10th largest county by population in Missouri
- 26% growth since 2000

Median Household Income: \$65,352

Poverty Rate: 9.5%

Unemployment Rate: 2.3%

Total Jobs: 30,418

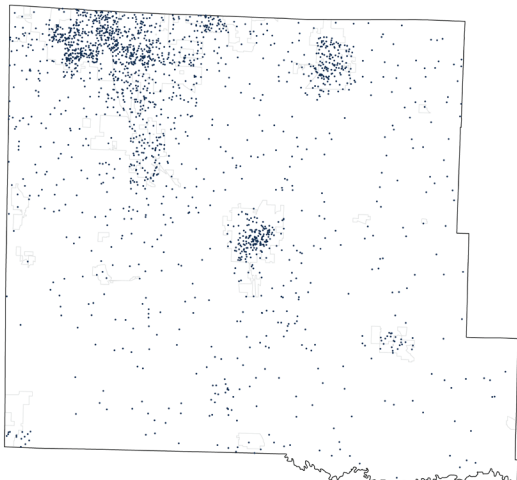
Cass County, Missouri, is a rapidly growing county on the southern edge of Kansas City's urbanized area, with just over 100,000 residents spread over 699 square miles.

The northern edge of the county is mostly growing suburbs — Belton, Raymore and Pleasant Hill — while much of the southern part is rural.

Interstate 49 runs north-south through the county, presenting the opportunity to promote the corridor as a hub of economic activity, in particular, sites around key intersections in Peculiar and Harrisonville offer development potential.

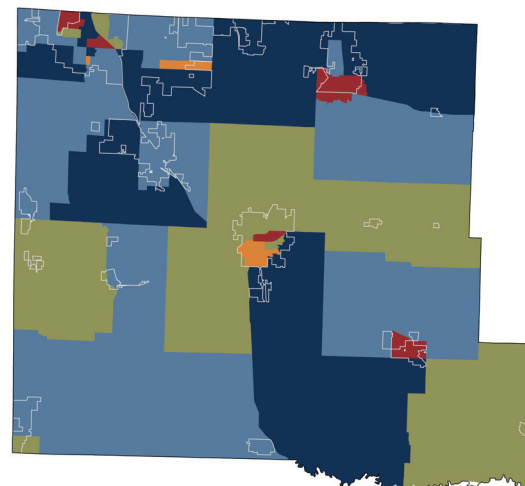
Cass County has not yet established a strong employment base; 74 percent of employed residents in Cass County work outside the county. The largest employing industries in Cass County are retail trade, health care and accommodations/food services.

POPULATION DENSITY



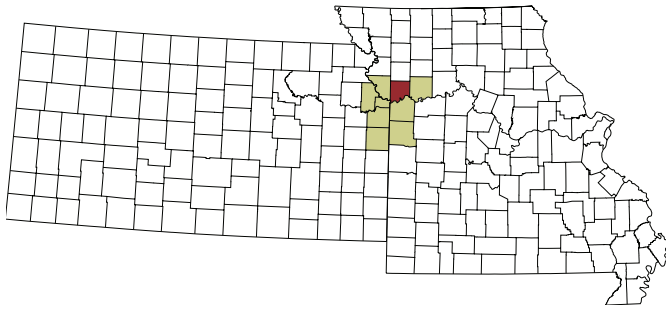
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POVERTY BY CENSUS TRACT



Greater than 20%	5-9.9%
15-19.9%	Less than 5%
10-14.9%	N/A

Clay County, Missouri



Clay County is a large, mostly suburban county in the northern part of the metro area adjacent to the Missouri River.

The county continues to grow in both population and employment. Since 2000, Clay County's population has grown 32 percent. The county has also seen sharp employment growth, adding 17,000 jobs since 2012.

Clay County has a diverse industry makeup. Manufacturing is the largest employer with more than 14,000 workers; the Ford assembly plant is the largest manufacturing employer. The Health IT company Cerner is also headquartered in Clay County. It is the largest employer in the professional, scientific and technical services industry. Additionally, Clay County specializes in entertainment (multiple casinos and an amusement park) and transportation/warehousing.

QUICK FACTS:

2017 Population: 242,874

- 6th largest county by population in Missouri
- 32% growth since 2000

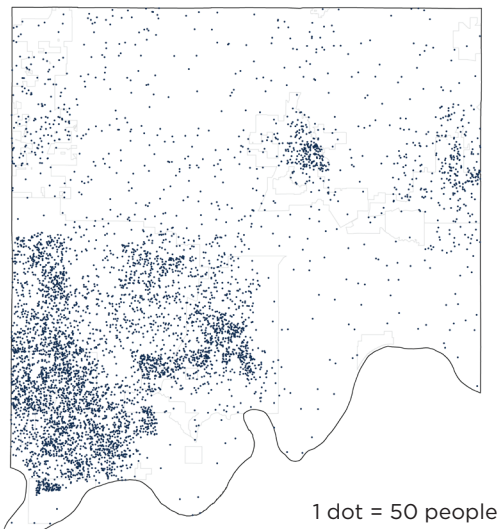
Median Household Income: \$65,675

Poverty Rate: 8.9%

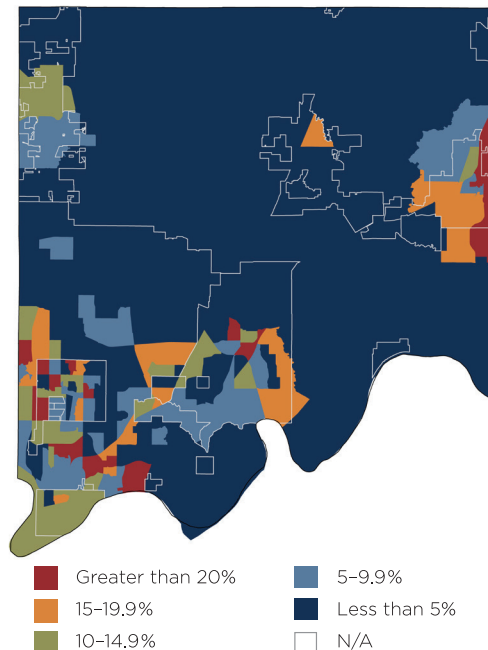
Unemployment Rate: 2.2%

Total Jobs: 3,547

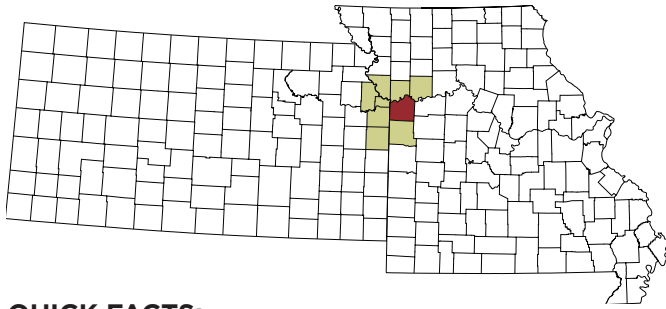
POPULATION DENSITY



POVERTY BY CENSUS TRACT



Jackson County, Missouri



QUICK FACTS:

2017 Population: 698,895

- 2nd largest county by population in Missouri
- 7% growth since 2000

Median Household Income: \$50,652

Poverty Rate: 15.9%

Unemployment Rate: 3%

Total Jobs: 392,673

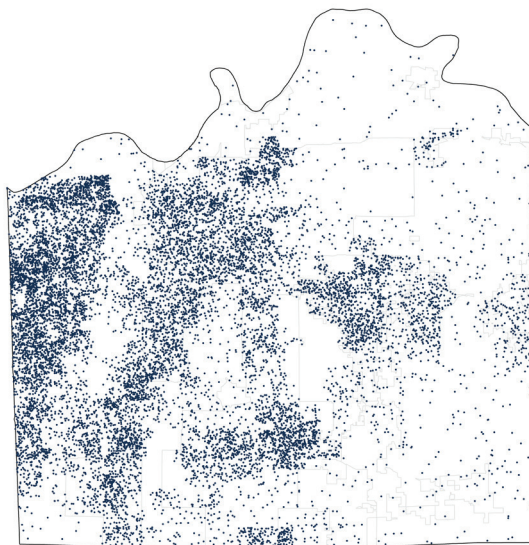
Jackson County is the largest county in the Kansas City metro with nearly 700,000 residents. It is home to the regions' central business district which is experiencing a resurgence in both employment and population growth. The western portion of the county is mostly urbanized Kansas City, Missouri, while eastern Jackson County is made up of growing suburban communities.

Major employers include H&R Block, Hallmark Cards, DST, Peterson Manufacturing, Honeywell, Bayer CropScience, St. Lukes Health System and Burns and McDonnell Engineers.

Cerner is currently building a new campus in southeast Kansas City that will eventually add 14,000 jobs to the county total.

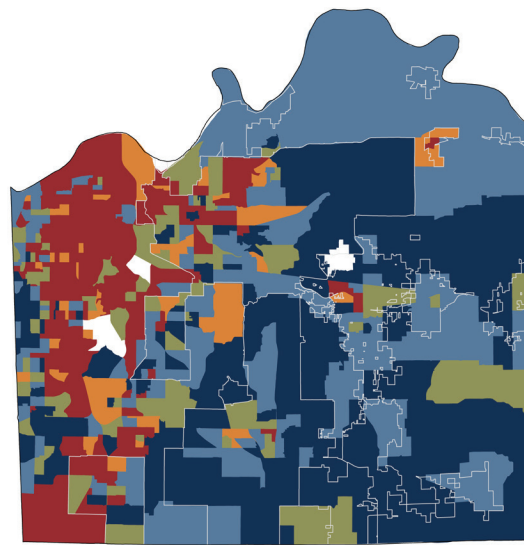
Significant transit investment in the city center is attracting considerable private investment in commercial and residential development.

POPULATION DENSITY



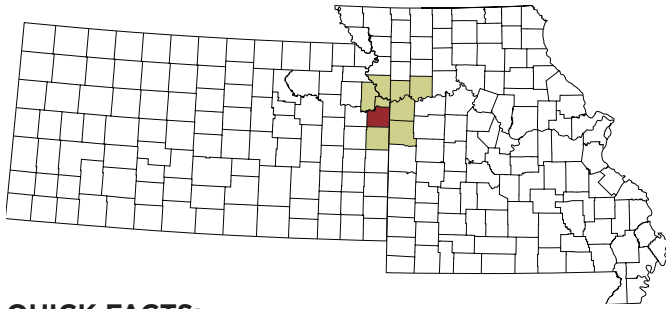
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POVERTY BY CENSUS TRACT



■ Greater than 20%	■ 5-9.9%
■ 15-19.9%	■ Less than 5%
■ 10-14.9%	□ N/A

Johnson County, Kansas



QUICK FACTS:

2017 Population: 591,178

- Largest county by population in Kansas
- 31% growth since 2000

Median Household Income: \$81,121

Poverty Rate: 5.6%

Unemployment Rate: 2.6%

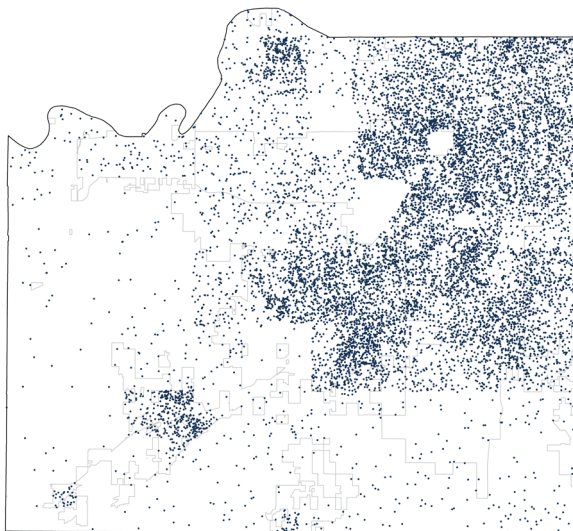
Total Jobs: 373,885

Johnson County is the second largest county in the Kansas City metro with 591,000 residents. It is the county with the highest median household income at \$81,121.

Johnson County is growing rapidly with strong population and employment growth. The county added 54,000 jobs since 2010. Many of these jobs are located along the College Boulevard corridor, which has grown into a key employment center in the metro area. This overall growth has occurred despite the significant employment losses at the Sprint headquarters located in Overland Park. At its peak, Sprint was the region's largest private employer. It now employs about 6,000 and a proposed merger with T-Mobile makes Sprint's presence in Johnson County uncertain.

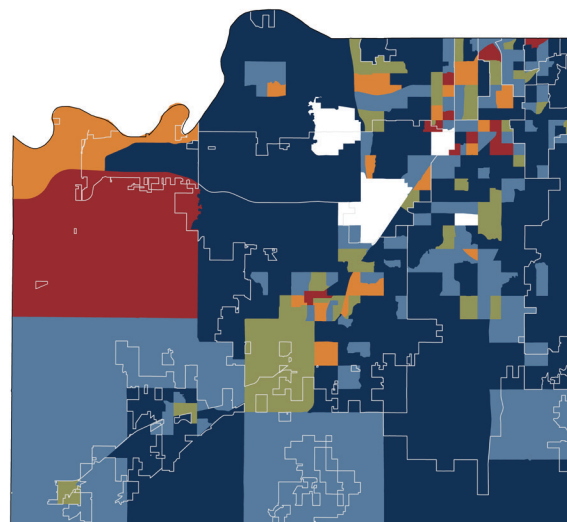
Johnson County is home to other major employers including Garmin, Black and Veatch, YRC and Bayer.

POPULATION DENSITY



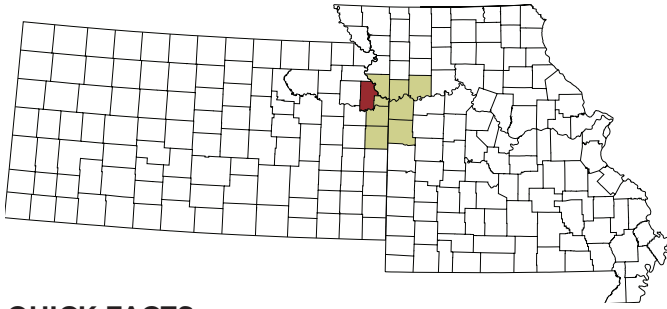
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POVERTY BY CENSUS TRACT



Greater than 20%	5-9.9%
15-19.9%	Less than 5%
10-14.9%	N/A

Leavenworth County, Kansas



Leavenworth County, Kansas, is located in the northwest corner of the region. Its northeast boundary borders the Missouri River. Most of the population resides on the east edge of the county in the cities of Lansing and Leavenworth. The western portion of the county is largely rural.

With Fort Leavenworth and the Leavenworth Federal Prison as major employers, more than 30 percent of Leavenworth County employees work in the government sector.

QUICK FACTS:

2017 Population: 81,095

- 6th largest county by population in Kansas
- 18% growth since 2000

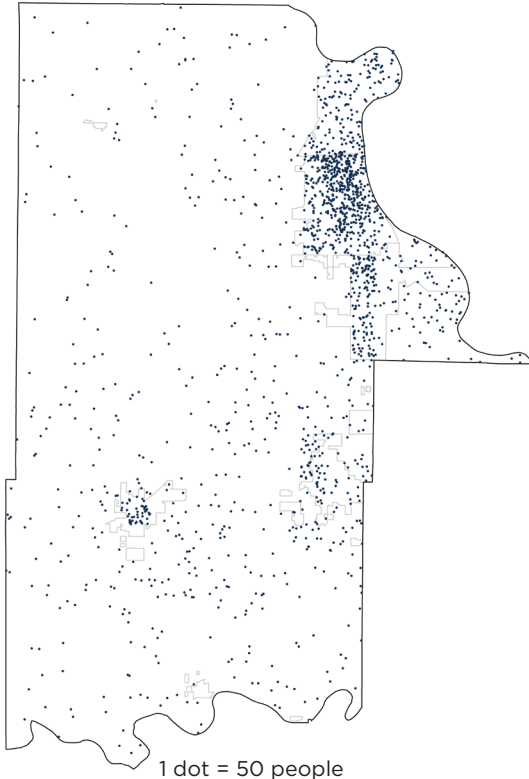
Median Household Income: \$70,022

Poverty Rate: 9%

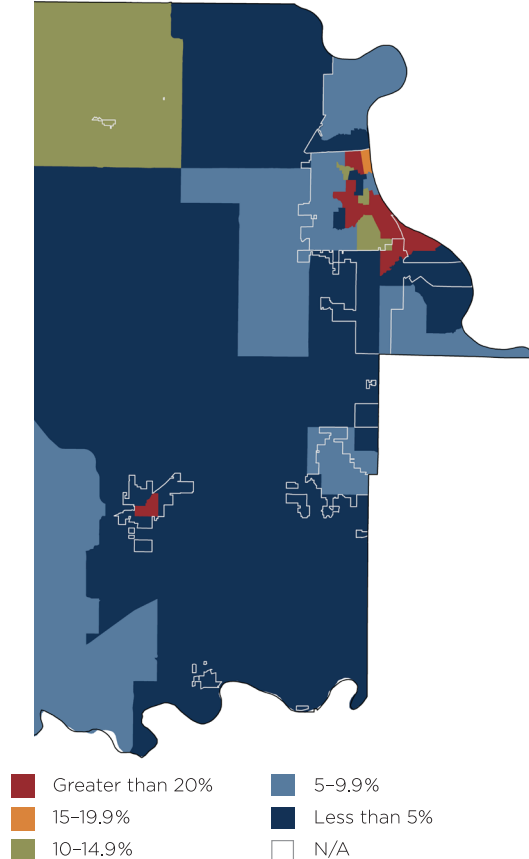
Unemployment Rate: 3%

Total Jobs: 23,469

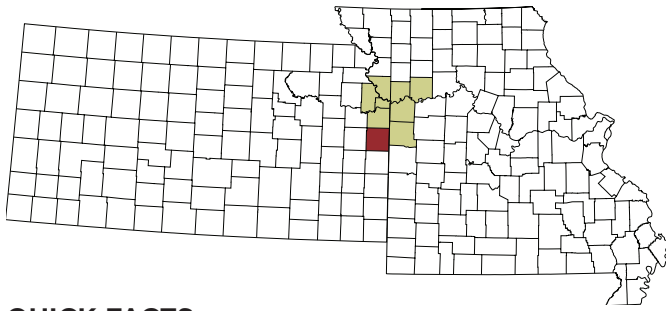
POPULATION DENSITY



POVERTY BY CENSUS TRACT



Miami County, Kansas



Miami County is a mostly rural county on the southwest corner of the Kansas City metro area. The new intermodal facility in Edgerton (in bordering Johnson County) is expected to create opportunities for housing and economic growth in the county.

Health care, educational services and retail are the largest employing industries in Miami County.

The majority of workers living in Miami County need to commute to another county for work.

QUICK FACTS:

2017 Population: 33,461

- 17th largest county by population in Kansas
- 18% growth since 2000

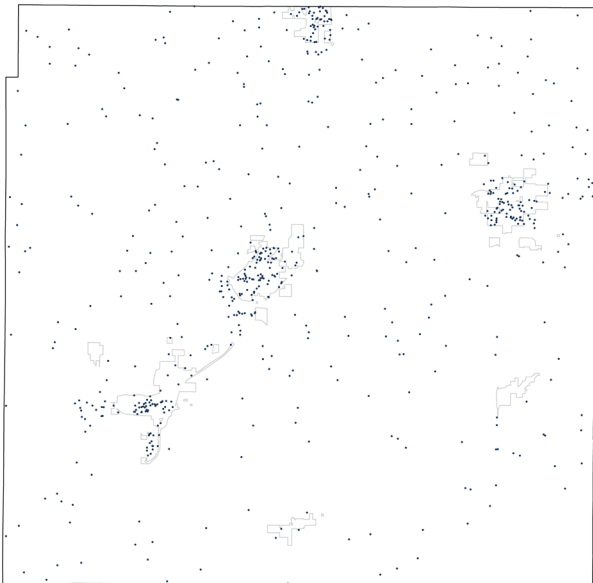
Median Household Income: \$63,501

Poverty Rate: 7.7%

Unemployment Rate: 3%

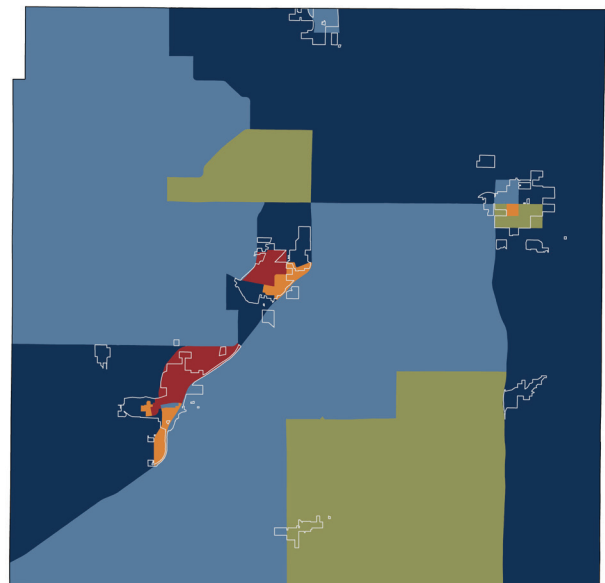
Total Jobs: 10,165

POPULATION DENSITY



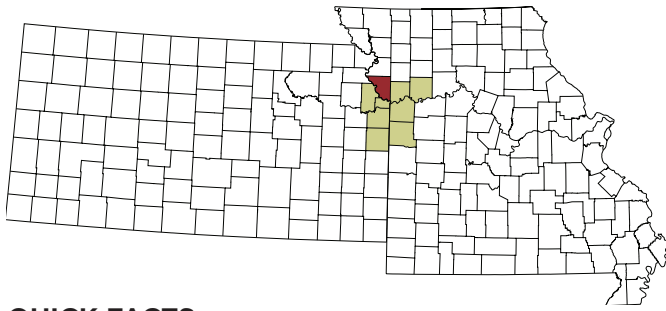
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POVERTY BY CENSUS TRACT



■ Greater than 20%	■ 5-9.9%
■ 15-19.9%	■ Less than 5%
■ 10-14.9%	□ N/A

Platte County, Missouri



QUICK FACTS:

2017 Population: 101,187

- 12th largest county by population in Missouri
- 37% growth since 2000

Median Household Income: \$74,199

Poverty Rate: 7.2%

Unemployment Rate: 2%

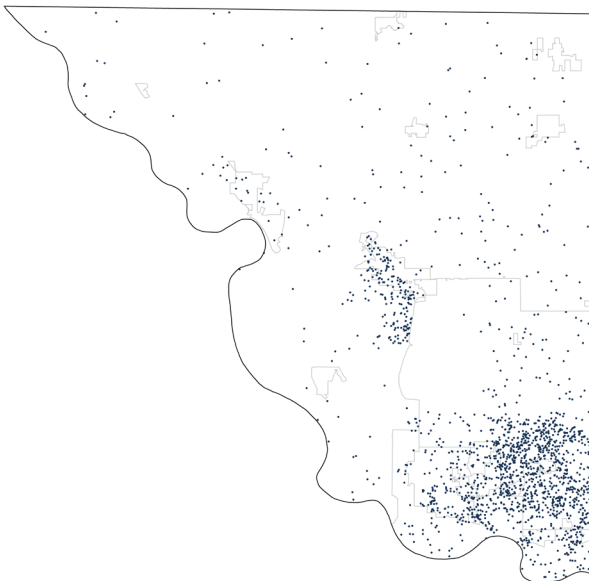
Total Jobs: 51,390

With 37 percent growth since 2000, Platte County is the fastest growing county in the Kansas City metro area. Its population now tops 100,000.

The county is home to Kansas City International Airport that will see construction of a new \$2 billion terminal, expected to be completed in 2022. The airport is connected to Kansas City’s central business district via Interstate 29, which acts as the key commercial corridor for the county. The southern part of the county has seen industrial development, specifically in auto parts manufacturing due to the close proximity to Ford and General Motors.

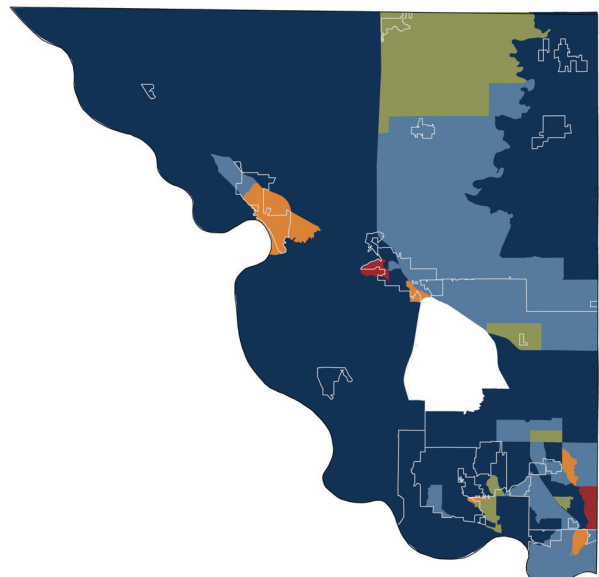
With the airport and interstate access, Platte County is a transportation and warehousing hub. It also has high levels of specialization in real estate, administrative and support services and arts, entertainment and recreation.

POPULATION DENSITY



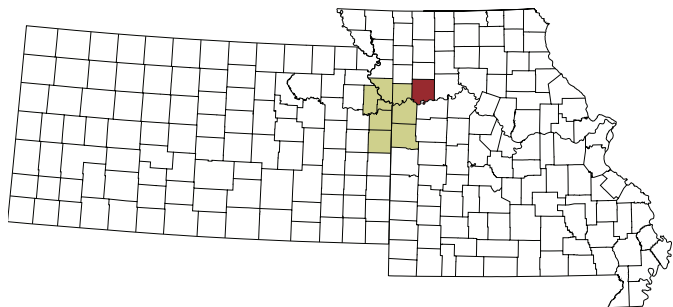
1 dot = 50 people

POVERTY BY CENSUS TRACT



■ Greater than 20%	■ 5-9.9%
■ 15-19.9%	■ Less than 5%
■ 10-14.9%	 N/A

Ray County, Missouri



Ray County sits in the northeast corner of the Kansas City metro area. It is predominantly rural with 11 smaller communities — Richmond, the county seat, is the largest with a population of 5,655.

Health care, retail and agriculture are the largest employing industries in the county.

Being largely rural, most of the 10,322 employed residents work outside Ray County.

QUICK FACTS:

2017 Population: 22,855

- 48th largest county by population in Missouri
- 2% decline since 2000

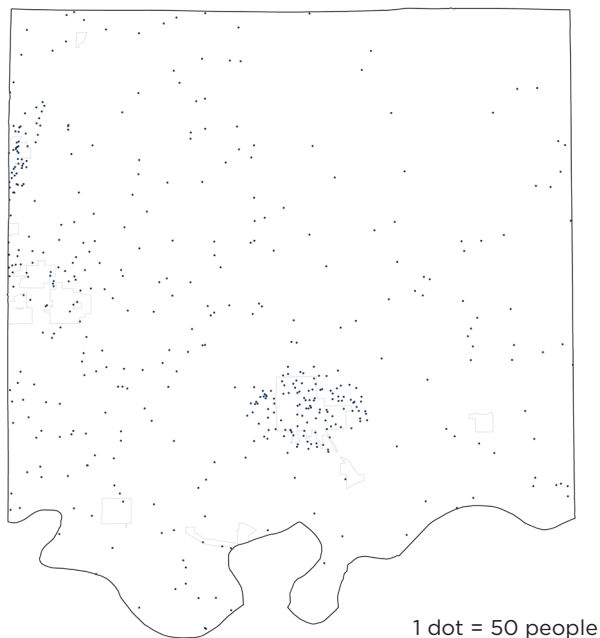
Median Household Income: \$57,270

Poverty Rate: 15.6%

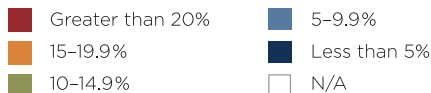
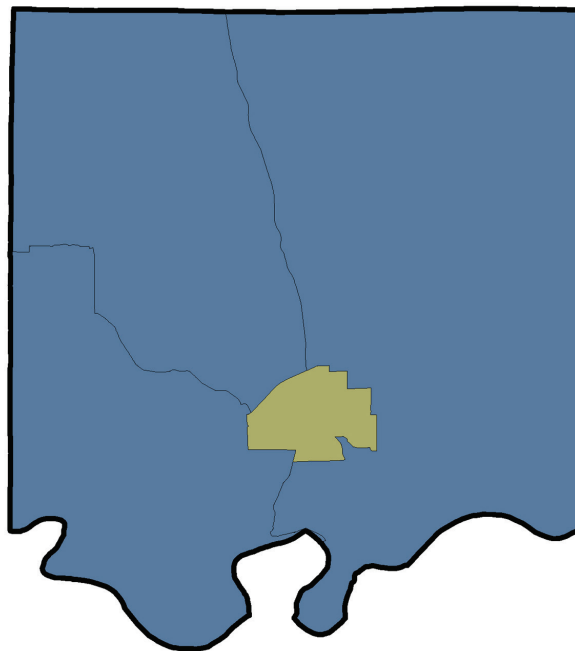
Unemployment Rate: 2.6%

Total Jobs: 5,289

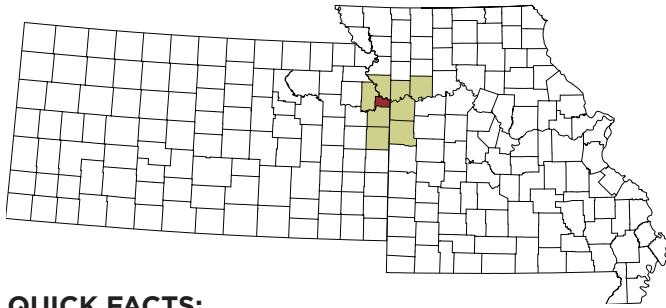
POPULATION DENSITY



POVERTY BY CENSUS TRACT



Wyandotte County, Kansas



QUICK FACTS:

2017 Population: 160,384

- 4th largest county by population in Kansas
- 2% growth since 2000

Median Household Income: \$37,529

Poverty Rate: 23.4%

Unemployment Rate: 8.5%

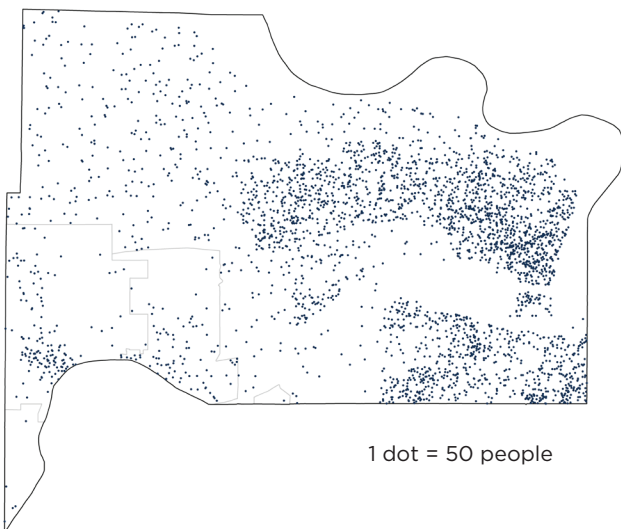
Total Jobs: 93,242

Wyandotte County, Kansas, has seen its population stabilize in recent years after decades of population loss. This stability is due mostly to the rapid growth of the more suburban western half of the county. Major retail and entertainment investments in the western portion have and will continue to pay off. The northeastern area has become heavily industrialized thanks to a General Motors plant.

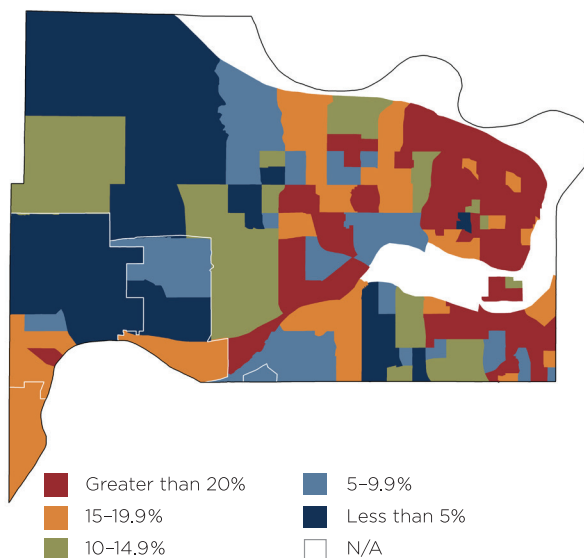
One of the county's challenges is that it is a leader in the metro area in high paying jobs, yet a modest proportion of those jobs are held by county residents. Of the 70,477 workers in the county, 29 percent are residents and 71 percent come from surrounding counties.

The location of the Kansas Speedway in western Wyandotte County has spurred considerable retail development and the construction of a minor league baseball stadium and major league soccer stadium. The Cerner Corporation built a large office building, locating 4,000 jobs in the area, which has spurred residential construction. The county is working to enhance public transit services along State Avenue from downtown to the western business centers and has implemented SOAR, a five-year plan to revitalize existing neighborhoods and commercial areas.

POPULATION DENSITY



POVERTY BY CENSUS TRACT



Appendix C: Historic Places and Landmarks

The Kansas City area has a rich cultural heritage, exemplified by the many places of historic interest and significance across the region.

There are seven historic sites across the Kansas City region that are National Historic Landmarks. These sites include:

- Fort Osage in Sibley (Jackson County)
- Mutual Musicians Association Building in Kansas City (Jackson County)
- Harry S. Truman Farm Home in Grandview (Jackson County)
- Harry S. Truman Historic District in Independence (Jackson County)
- Watkins Mill north of Excelsior Springs (Clay County)
- Shawnee Methodist Mission (Johnson County)
- Fort Leavenworth, (Leavenworth County)

There are four state parks located in the Kansas City metropolitan area:

- Thomas Hart Benton Home and Studio State Historic Site (Jackson County)
- Hillsdale State Park (Miami County)
- Watkins Mill State Park (Clay and Ray Counties)
- Weston Bend State Park (Platte County)

National Historic Places (updated 1/14/14)

The National Register of Historic Places is the federal government's official list of historic properties worthy of preservation. Listed below, by county, are the region's historic properties, historic districts and archeological sites on the National Register of Historic Places. Dates in parentheses are dates that sites were added to the National Register of Historic Places.

Cass County, Mo.

Brown, Robert A., House, north of Harrisonville (6/15/70)
Watkins Family Farm Historic District (3/19/07)
Harrisonville Courthouse Square Historic District, (4/08/94)
O'Bannon Homestead, northeast of Garden City (7/03/79)
Pleasant Hill Downtown Historic District (3/23/05)
St. Peter's Episcopal Church, Harrisonville (9/09/82)
Stumbaugh Post No. 180 G.A.R. Hall, Austin (6/8/00)

Clay County, Mo.

Aker Cemetery, northeast of Smithville (11/13/74)
Antioch Christian Church, Kansas City (4/02/79)
Armour Theatre Building (6/24/08)
Arthur-Leonard Historic District, Liberty (1/4/01)
Atkins-Johnson Farmhouse Property (11/07/07)
Clay County Savings Association Building, Liberty (12/28/92)
Claybrook House, Kearney vicinity (12/21/81)
Clinton House, Liberty (11/22/78)
Colonial Hotel (6/24/10)
Compton, Dr. James, House, Kansas City (7/10/79)
Dougherty-Prospect Heights Historic District, Liberty (1/4/01)

Elms Hotel, Excelsior Springs (3/29/85)
Excelsior Springs Hall of Waters Commercial East Historic District, Excelsior Springs (5/27/99)
Excelsior Springs Hall of Waters Commercial West Historic District, Excelsior Springs (5/27/99)
First Methodist Church (10/28/09)
Garrison School Historic District, Liberty (1/4/01)
Hall of Waters, Excelsior Springs (6/09/83)
Hughes, Frank, Memorial Library, Liberty (12/28/92)
IOOF Liberty Lodge #49, Liberty (12/28/92)
James Brothers' House and Farm, northeast of Kearney (3/16/72); boundary increase (9/27/78)
Jewell Hall, Liberty (9/6/78)
Jewell-Lightburne Historic District, Liberty (1/4/01)
Ligon Apartments (5/14/10)
Major Hotel, Liberty (12/28/92)
Miller Building, Liberty (12/28/92)
Missouri City Savings Bank Building and Meeting Hall (7/30/10)
Mt. Memorial Cemetery (4/12/12)
Nebo Hill Archaeological Site (3/04/71)
Odd Fellows Home District, Liberty (9/15/87)
Sears, Roebuck and Company Warehouse Building, North Kansas City (5/9/97)
South Liberty Courthouse Square Historic District, Liberty (12/28/92)
Watkins Mill, northwest of Excelsior Springs (11/13/66)
West Liberty Courthouse Square Historic District, Liberty (12/28/92)
Wheeling Corrugating Company Building, North Kansas City (10/21/94)
Woodneath, Kansas City (2/17/78)
Wyman School (7/24/08)

Jackson County, Mo.

1524 Grand Avenue Building (4/15/04)
1901 McGee Street Automotive Service Bldg. (1/22/09)
18th and Vine Historic District, Kansas City (9/9/91)
85th and Manchester "Three Trails" Trail Segment (8/22/12)
A.B.C. Storage and Van Co. Building (2/01/07)
Acme Brass and Machine Works Building (7/14/04)
Aines Farm Dairy Building (10/01/08)
Alana Apartment Hotel (7/05/06)
Ambassador Hotel Historic District, Kansas City (2/17/83)
Argyle Building (8/17/05)
Armour Boulevard Post-World War II Apartment Building Historic District (11/07/07)
Attucks School, Kansas City (9/9/91)
Auto Coach Building (4/18/07)
Bailey Family Farm Historic District (7/03/06)
Baker-Vawter Building, Kansas City (5/5/00)
Bancroft School (1/12/12)
Barclay Building (2/8/07)
Bayles Addition Historic District (2/13/13)
Bellefontaine Avenue Historic District (2/14/11)
Bellerive Hotel, Kansas City (2/28/80)
Benton, Thomas Hart, House and Studio, Kansas City (11/21/80)
Beth Shalom Synagogue, Kansas City (9/9/82)

Bingham-Waggoner Home and Estate, , Independence (5/22/80)
Bixby, Walter E., House, Kansas City (11/21/78)
Blackstone Hotel (10/18/03)
Blue Mills, Independence (4/21/94)
Boley Building, Kansas City (3/9/71)
Bonfils Building, Kansas City (3/22/84)
BMA Tower, Kansas City (8/21/02)
Bon Air Apartments (7/30/08)
Braley, Charles A. House (10/09/13)
Bryant Building, Kansas City (4/24/89)
Bryant, Dr. John S. Jr. and Harriet Smart, House, Independence (5/21/92)
Buick Automobile Company Building (5/05/04)
Bunker Building, Kansas City (9/5/75)
Burnett-Berry House, 1030 W 65th St, Kansas City (2/18/11)
Byram's Ford Historic District (10/16/89)
Cave Spring (8/10/78)
Chambers Building (12/28/01)
Chappell, Philip E., House (8/03/90)
Chatham Hotel (6/24/08)
Cherry Street Colonnades Historic District (9/22/05)
Chicago Apartments (9/11/80)
Christian Church Hospital (10/21/04)
Circle Apartments (10/22/02)
City Bank Building (2/17/83)
Coates House Hotel (2/23/72)
Coca-Cola Building (8/18/88)
Colonnade Apartment Building at 4302 Oak Street (9/04/08)
Columbia Building (05/05/00)
Continental Hotel (8/08/83)
Corrigan, Bernard, House, (1/18/78)
Corrigan, Thomas, Building, (9/16/82)
Crestwood Historic District (10/08/98)
Crossroads Historic Freight District (12/22/00)
Curtiss, Louis, Studio Building (6/19/72)
Dean, O.H., Building (9/03/09)
Dierks Building (1/29/2009)
Disney, Walt, House and Garage (5/22/78)
District I Armour Boulevard MRA (7/28/83)
District I Hotels in Downtown Kansas City TR (8/08/83)
District II Armour Boulevard MRA (7/28/83)
District III Armour Boulevard MRA (7/28/83)
Dorson Apartment Building (5/05/87)
Drumm, Andrew, Institute (11/03/06)
East 27th Street Colonnades Historic District (6/28/06)
Ellsworth Apartments (10/22/02)
Elmwood Cemetery (7/28/83)
Exchange Building (6/13/03)
Faultless Starch Co. Building (5/9/02)
Federal Reserve Bank of Kansas City (4/10/07)
Fidelity National Bank and Trust Co. Building (8/14/97)
Fire Department Headquarters, Fire Station #2 (9/02/82)
Firestone Building (1/03/86)

Floyd, Jacobs, House (9/08/83)
Fort Osage (10/15/66; NHL 11/05/61)
Fort Osage Archaeological District (3/17/72)
Four Gates Farm (7/15/91)
Fowler, Henry T. House (7/28/83)
Gary, Hunter, House (2/13/08)
Gate City National Bank Building (9/02/82)
George, Todd M. Sr., House (2/12/10)
Georgen, John and Adele, House (05/05/00)
German Evangelical Pastors' Home Historic District (10/13/88)
Gillham Court Apartments Building (11/07/07)
Globe Storage and Transfer Co. Building (4/18/07)
Gloyd Building (7/25/85)
Goodenow Textiles Co. Building (4/18/03)
Grand Avenue Temple and Grand Avenue Temple Building (5/08/85)
Grandview Residential Historic District (11/15/05)
Graphic Arts Building (8/04/05)
Greenlease Cadillac Building (6/13/03)
Guadalupe Center (9/02/03)
Gumbel Building (1/25/79)
Harris, Col. John, House (10/18/72)
Helping Hand Institute Building (05/05/00)
Henderson, Dr. Generous, House (2/28/79)
Hesse Carriage Co. Building (3/21/07)
Hiland Telephone Exchange Building (5/06/05)
Holy Name Catholic Church (9/25/03)
Holy Rosary Historic District (2/07/07)
Hook, Mary Rockwell, House (9/08/83)
Hotel Phillips (6/04/79)
House at 5011 Sunset Drive (9/08/83)
House at 54 E 53rd Terrace (9/08/83)
Howard Neighborhood Historic District (7/03/07)
Howe, Frank M., Residence (4/18/85)
Hughes, Mollie and Josephine, House (4/07/94)
Hyde Park East Historic District (5/27/04)
Hyde Park Historic District (11/21/80)
Hyde Park West Historic District (5/27/04)
Imperial Brewing Co. Brewery (2/11/11)
Insurance Building-Consumers Cooperative Association Building (11/25/05)
Inter-State Building (6/12/08)
Ivanhoe Masonic Temple (5/02/85)
Jackson County Courthouse (10/18/72)
Jackson County Jail and Marshal's House (6/15/70)
Janssen Place Historic District (11/07/76)
Jenkins Music Company Building, (3/02/79)
Jensen-Salsbery Laboratories (7/16/85)
Jones, Lewis, House (4/21/94)
Jones, R. Bryson, House (4/15/09)
Kansas City Athenaeum (10/11/79)
Kansas City Club Building (11/19/02)
Kansas City Cold Storage Co. Building (6/01/05)
Kansas City Live Stock Exchange (4/05/84)

Kansas City Masonic Temple (11/14/80)
Kansas City, Missouri Western Union Telegraph Building (2/12/03)
Kansas City Police Station Number 4 (10/26/05)
Kansas City Power and Light Co. Building (1/09/03)
Kansas City Public Library (5/23/77)
Kansas City Southern Railway Building (5/06/04)
Kansas City Terminal Railway Co. Roundhouse Historic District (1/26/01)
Kansas City Title and Trust Building (6/25/05)
Kansas City Water Department Building (4/07/94)
Katz, Michael H. and Rose, House (3/22/04)
Keith, Charles S., House (03/31/00)
Kelley-Reppert Motor Co. Building (11/12/04)
Kelly's Westport Inn (Albert G. Boone Store) (9/07/72)
Kessler Apartments (10/22/02)
Kirkwood Building (7/25/01)
Knickerbocker Apartments (6/13/03)
Knight, William Baker and Mary, House (10/18/03)
Kritser House (4/10/85)
Kuehne-Schmidt Apartments (2/13/07)
Land Bank Building (1/18/85)
Lee's Summit Christian Church Building (4/20/11)
Lee's Summit Downtown Historic District (8/02/07)
Lewis-Webb House (2/06/86)
Liberty Memorial (10/06/00; NHL 9/20/06)
Linwood Presbyterian Church and Home for Convalescent Employed Women (8/07/12)
Liquid Carbonic Co. Building (4/29/94)
Locust Street Apartments (4/29/11)
Loew's Midland Theater-Midland Building (9/28/77)
Long, R. A., Building (1/08/03)
Long, R. A., House (11/14/80)
Longview Farm (10/24/85)
Loose, Jacob, House ((7/28/83)
Loretto Academy, (7/28/83)
Love, Emily Rockwell, House (9/08/83)
Lowe and Campbell Sporting Goods Building (1/12/12)
Maine Apartments (10/22/02)
Mainstreet Theatre (2/15/07)
Majestic Apartments (10/17/03)
Majors, Alexander, House (4/03/70)
Maples Apartments (10/22/02)
Marks and Garvey Historic District (6/28/06)
Marty, Albert, Building (2/05/13)
Maryland Apartments (10/22/02)
McConahay Building (5/22/78)
McIntire, Levi, House City (7/28/83)
McMahon Apartments (10/22/02)
Mercantile Bank & Trust Building (12/31/09)
Meyer, August, House (9/09/82)
Midwest Hotel (5/06/04)
Milo Apartments (10/25/11)
Mineral Hall (7/12/76)
Minor, Charles, House (3/22/84)

Missouri Apartments (10/22/02)
Missouri Pacific Depot (1/29/79)
Monroe Hotel (5/06/04)
Montgomery Ward and Company General Merchandise Warehouse (7/08/10)
Morningside Acres Historic Ranch House District (2/03/12)
Mount Washington School (4/23/13)
Mutual Ice Co. Building, (8/04/04)
Mutual Musician's Foundation Building (2/07/79; NHL 12/21/81)
Myers, George J., House (7/28/83)
National Bank of Commerce Building (5/5/99)
National Garage, (05/05/00)
Nettleton, George H., Home (10/14/99)
New England Apartments (10/22/02)
New Santa Fe "Three Trails" Trail Swales (8/22/12)
New York Life Building (7/08/70)
Newbern Hotel (9/23/80)
Newcomers, D. W., Sons Funeral Home (8/09/83)
Nicholson, George E., House (11/25/05)
Noland, Smallwood V., House (4/21/94)
Northeast Douglas Street Residential Historic District (8/27/08)
Northeast Forest Avenue and Northeast Green Street Residential Historic District (8/27/08)
Northeast Green and 1st Streets Residential Historic District (8/27/08)
Old New England Building (10/25/73)
Old Town Historic District (6/07/78)
Ostertag, Robert, House (9/08/83)
Overfelt-Campbell-Johnston House (9/05/75)
Owens-McCoy House (4/21/94)
Palace Clothing Co. Building (1/18/85)
Parade Park Maintenance Building (7/24/08)
Paris and Weaver Apartment Buildings (7/05/06)
Park Lane Apartments (5/05/04)
Park Manor Historic District (2/01/06)
Parkview, The (Apartment Buildings) (10/22/02)
Paseo YMCA (9/09/91)
Peck, George B., Dry Goods Co. BuildingCity (4/30/80)
Pendergast, Thomas J., Headquarters (10/25/11)
Pennbroke Apartments (4/15/09)
Peppard, Joseph Gear, House (3/26/85)
Peters, Nelle E., Troost Avenue Historic District (7/23/09)
Pickwick Hotel, Office Building, Parking Garage and Bus Terminal (3/29/05)
Pilgrim Lutheran Church for the Deaf of Greater Kansas City and Parsonage (1/25/01)
Pink House (Residential Structures by Mary Rockwell Hook TR (9/08/83)
Plaza House Apartments (10/16/13)
Pratt and Whitney Plant Complex (8/28/13)
President Gardens Apartments Historic District (12/10/98)
President Hotel (Hotels in Downtown Kansas City TR (8/08/83)
Professional Building (Bryant Building)(7/17/79)
Quality Hill (7/07/78)
Repp, William D., House (7/28/83)
Rice-Tremonti House (3/02/79)
Richards and Conover Hardware C (1/21/99)
Rieger Hotel (5/06/04)

Rockhill Neighborhood (7/21/75)
Rockwell, Bertrand, House (9/08/83)
Row House Building (5/22/78)
Row House Buildings (1/15/85)
Sacred Heart Church, School and Rectory (11/14/78)
Safeway Stores and Office and Warehouse Building (05/05/00)
St. Mary's Episcopal Church (11/07/78)
St. Paul's Episcopal Church (10/03/85)
St. Regis Hotel (12/03/13)
St. Teresa's Academy Music and Arts Building (11/15/00)
Santa Fe Place Historic District (5/30/86)
Santa Fe Trail – Minor Park (6/30/94)
Santa Fe Trail – Santa Fe Trail Park (4/21/94)
Savoy Hotel and Grill (12/30/74)
Scarritt Building and Arcade (3/09/71)
Scarritt, Edward Lucky (5/23/77)
Scarritt, Rev. Nathan, House (5/08/78)
Scarritt, William Chick, House City (3/21/78)
Scarritt Point North Historic District (12/01/97)
Scarritt Point South Historic District (12/01/97)
Seven Oaks School (10/09/12)
Sewall Paint and Glass Co. Building (5/9/02)
Shelley, William Francis, House (3/17/78)
Sherwood Manufacturing Co. Building (10/28/10)
Simpson-Yeomans Country Side Historic District (9/06/84)
Simpson-Yeomans Country Side Historic District ((05/26/00)
Simpson-Yeomans-Country Side Historic District (7/14/11)
Smith and Sons Manufacturing Co. Building (12/18/07)
Sophian Plaza (7/05/83)
South Hyde Park Historic District (11/14/07)
South Side Historic District (6/09/83)
Southeast Grand Avenue and Fifth Street Residential Historic District (4/20/11)
Southeast Green Street Historic Cottage District (10/14/10)
Southeast Third Street and Southeast Corder Avenue Ranch House Historic District (9/15/11)
Southeast Third Street Residential Historic District (10/14/10)
Southwest Market Street Historic District (2/27/13)
Southwest Third and Southwest Madison Historic District (2/13/13)
Squibb, E.R. and Sons (12/07/10)
Squier Park Historic District (4/24/12)
Standard Theatre (6/05/74)
Stenzel, R.O. and Co. Warehouse (7/20/07)
Stine and McClure Undertaking Co. Building (7/19/90)
Studna Garage Building (7/05/06)
Swinney, E.F., School (10/16/13)
Switzer School Buildings (12/18/09)
Temple Block Building (6/19/85)
Temple Site (9/22/70)
Tocoma City (11/24/82)
Toll, Alfred, House (7/28/83)
Town of Kansas Site (6/28/11)
Townley Metal and Hardware Co. Building (1/24/01)

Triangle Battery and Service Co. Building (10/17/03)
Trinity Episcopal Church (4/27/79)
Tromanhauser, Norman, House (1/26/01)
Truman, Harry S, Historic District, Range 32 West, Township 49 North (11/11/71)
Truman, Harry S, National Historic Site (5/31/85)
TWA Corporate Headquarters' Building (11/20/02)
Twenty-Ninth Street Colonnaded Apartments Historic District (2/07/07)
Twenty-Twenty Grand Building (4/16/12)
Union Station (2/01/72; boundary increase 5/06/04)
U.S. Courthouse and Post Office (11/20/07)
United States Post Office (5/26/04)
Unity School of Christianity Historic District (4/12/89)
Uptown Building and Theatre (6/27/79)
Vaccaro, Joe, Soda Water Manufacturing Co. Building (10/18/03)
Vaile, Harvey M., Mansion (10/01/69)
Valentine on Broadway Hotel (8/01/08)
Van Noy, Ira C. and Charles S., House (7/08/87)
Villa Serena Apartment Hotel (4/15/09)
Virginia Apartments (10/22/02)
Vitagraph Film Exchange Building (2/28/08)
Volker, William, House (5/20/93)
Waldo Water Tower (Frank T. Riley Memorial (4/18/77)
Walnut Street Warehouse and Commercial Historic District (9/17/99)
Walnut Street Warehouse and Commercial Historic District (6/13/08)
Walnut Street Warehouse and Commercial Historic District (12/17/08)
Waltower Building (8/8/01)
Ward, Seth E., Homestead (2/17/78)
Warner, Maj. William, House (5/23/77)
Webster School (9/02/82)
West Eleventh Street Historic District ((9/09/82)
West Ninth Street-Baltimore Avenue Historic District (11/07/76)
West Ninth Street-Baltimore Avenue Historic District (11/20/02)
West Ninth Street-Baltimore Avenue Historic District (10/12/10)
Western Newspaper Union Building (3/21/07)
Westminster Congregational Church (2/28/80)
Wholesale District (10/25/79)
Wholesale District City (4/23/13)
Windsor Hall Apartments (1/14/11)
Woodson-Sawyer House (3/20/86)
Woolworth, F. W., Building (5/06/05)
Wornall, John B., House (5/21/69)
Young, Solomon, Farm (5/05/78; NHL 2/04/85)

Platte County, Mo.

Babcock Site, address restricted (11/15/73)
Benjamin Bannaker School, Parkville (9/22/95)
Deister Archaeological Site, address restricted (1/21/70)
Krause, Frederick, Mansion, Platte City (5/22/78)
MacKay Building, Park College, Parkville (4/6/79)
McCormick Distillery, Weston (4/16/74)
Missouri District Warehouse, Weston (7/19/10)
Platte County Courthouse, Platte City (1/17/79)

Pleasant Ridge United Baptist Church, near Weston (3/13/02)
Renner Village Archaeological Site, address restricted (4/16/69)
Scott, Charles Smith, Memorial Observatory, Parkville (5/29/92)
Sugar Creek Site, address restricted (12/12/73)
TWA Administrative Offices Building (11/06/07)
Waddell "A" Truss Bridge, Parkville (1/25/91)
Washington Chapel C.M.E. Church, Parkville (8/31/92)
Weston Historic District, Weston (8/21/72)

Ray County, Mo.

Dougherty Auditorium (Farris Theater), Richmond (9/16/82)
Mansur, Isaiah, Farmstead Historic District, Richmond vicinity (8/14/98)
New Hope Primitive Baptist Church, southwest of Richmond (11/14/80)
Ray County Courthouse, Richmond (10/11/79)
Ray County Poor Farm (Ray County Historical Society & Museum), Richmond (7/10/79)
Watkins House, Richmond (2/10/83)

Johnson County, Kan.

Blackfeather Farm, Stilwell (8/22/96)
Broadmoor Ranch House Historic District (2/7/11)
Dutton- Thomas- Soule Farm (8/26/06)
Ensor Farm, Olathe (2/27/04)
Foster, Herman D. House (Gardner Historical Museum), Gardner (11/28/07)
Horn-Vincent-Russell Estate, Mission Hills (7/25/97)
Lanesfield School, Edgerton (10/13/88)
Lanter, Franklin R., House, Olathe (10/10/07)
Loomis Historic District, Merriam (5/17/06)
Mahaffie, J.B., House, Olathe (8/29/77)
Majors (Alexander) House, Leawood (12/29/70)
McCarthy (John) House, Edgerton (7/10/00)
Ott, Albert, House, Olathe (4/1/98)
Overland Theater, Overland Park (2/9/05)
Parker, Martin Van Buren, House, Olathe (8/29/88)
Pickering, I.O., House, Olathe (12/1/80)
Redel Historic District, Stilwell (8/16/96)
Shawnee Methodist Mission, Fairway (5/23/68)
Turner (William Thomas) Barn, Gardner (4/1/99)
Virginia School District #33, Shawnee (5/19/04)
Voights (Herman J. and Ella B.) House, Leawood (5/18/95)
WPA Beach House at Gardner Lake, Gardner (6/25/92)
Westwood Hills Historic District (12/4/13)
Wolcott House, Mission Hills (5/2/01)

Leavenworth County, Kan.

AXA Building, Leavenworth (3/16/72)
Abernathy Furniture Company Factory, Leavenworth (10/12/04)
Angell, A.J., House, Leavenworth (11/17/77)
Arch Street Historic District, Leavenworth (7/3/02)
Atchison, Topeka and Santa Fe Railroad Passenger Depot, Leavenworth (6/11/86)
Begley Bridge, Millwood vicinity (5/9/03)
Brewer, David J., House, Leavenworth (2/23/72)
Burt, Nathaniel H., House, Leavenworth (10/27/87)

Caenen Site 14LV1083, Tonganoxie vicinity (9/6/05)
Carroll, Edward, House, Leavenworth (10/02/86)
Evans Site, Tonganoxie Vicinity (10/28/04)
First Presbyterian Church, Leavenworth (01/11/06)
Fort Leavenworth, (10/15/66)
Fort Leavenworth National Cemetery, Fort Leavenworth (7/15/99)
Harris, Senator William A., House, Linwood (11/5/74)
Harvey, Fred, House, Leavenworth (4/26/72)
Helmets Manufacturing Company Building (10/8/09)
Hollywood Theater, Leavenworth (10/25/90)
Hund School, Leavenworth (3/9/00)
Insley, Merritt, House and Outbuildings, Leavenworth (10/2/86)
Lamborn, Horace and Rosemond, Farmstead (10/06/11)
Lansing Man Archeological Site, Lansing (3/24/71)
Leavenworth County Courthouse, Leavenworth (4/26/02)
Leavenworth Downtown Historic District, Leavenworth (4/26/02)
Leavenworth Historic Industrial District, Leavenworth (4/29/02)
Leavenworth Landing Historic District (8/10/81)
Leavenworth Public Library, Leavenworth (7/30/86)
Leavenworth Terminal Railway & Bridge Company Freight Depot (5/06/09)
North Broadway Historic District, Leavenworth (7/3/02)
North Broadway School (8/13/11)
North Esplanade Historic District, Leavenworth (12/12/77)
Paul Site 14LV1043, Tonganoxie vicinity (9/6/05)
Powers, David, House, Leavenworth (8/30/77)
Quarry Creek Archeological Site, Fort Leavenworth (4/23/73)
Scott Site, Tonganoxie Vicinity (10/29/04)
South Esplanade Historic District, Leavenworth (7/3/02)
Sumner Elementary School (7/04/11)
Third Avenue Historic District, Leavenworth (7/3/02)
Union Depot (Old), Leavenworth (3/11/82)
Union Park Historic District, Leavenworth (7/3/02)
Western Branch, National Home for Disabled Volunteer Soldiers, Leavenworth (4/30/99)
Zacharias Archeological Site, Leavenworth (1/8/87)

Miami County, Kan.

Asylum Bridge, Osawatomie (1/4/90)
Brown, John, Cabin, Osawatomie (3/24/71)
Carey's Ford Bridge, Rantoul (1/4/90)
Creamery Bridge, Osawatomie (3/10/83)
Hillsdale Archeological District, Hillsdale (5/12/77)
Jackson Hotel, Paola (7/9/08)
Jake's Branch of Middle Creek Bridge, Louisburg (7/2/85)
Miami County Courthouse, Paola (3/1/73)
Mills, William, House, Osawatomie (11/20/86)
New Lancaster General Store (12/11/13)
New Lancaster Garage Hall (12/11/13)
Pottawatomie Creek Bridge, Osawatomie (3/10/83)

Wyandotte County, Kan.

Argentine Carnegie Library, Kansas City (4/30/86)
Bonner Springs High School, Bonner Springs (7/11/02)

Castle Rock, Kansas City (2/18/00)
Fairfax Hills Historic District (Parkwood Estates), Kansas City (6/30/07)
Fire Station No. 9, Kansas City (9/05/85)
Franklin Elementary School (6/23/2013)
Gates, Judge Louis, House, Kansas City (12/01/80)
Granada Theater, Kansas City (2/9/05)
Grinter Place, Kansas City (1/25/71)
H.W. Gates Funeral Home (7/06/10)
Hanover Heights Neighborhood Historic District, Kansas City (5/17/90)
Huron Cemetery, Kansas City (9/3/71)
Kansas City, Kansas City Hall and Fire Headquarters (4/25/86)
Lake of the Forest Historic District, Bonner Springs (1/22/96)
Lowell Elementary School, Kansas City (1/31/08)
Mann, Horace Elementary School (1/20/12)
Meeks, Cordell Senior House (10/9/13)
Northeast Junior High School, Kansas City (10/16/08)
Quindaro Townsite, Kansas City (5/22/02)
Rosedale World War I Memorial Arch, Kansas City (8/2/77)
Sauer Castle, Kansas City (8/2/77)
Schleifer-McAlpine House, Kansas City (10/10/07)
Scottish Rite Temple, Kansas City (9/11/85)
Shafer (Theodore) House, Kansas City (2/18/00)
Shawnee Street Overpass, Kansas City (3/8/84)
Soldiers and Sailors Memorial Building, Kansas City (9/5/85)
St. Augustine Hall, Kansas City (2/24/71)
St. John the Divine Catholic Church (10/9/13)
Sumner High School and Athletic Field, Kansas City (9/6/05)
Trowbridge Archeological Site, Kansas City (2/24/71)
Westheight Manor Historic District, Kansas City (2/19/82)
Whitefeather Spring, Kansas City (8/27/75)
Williamson, Roy, House, Edwardsville (4/18/07)
Wyandotte County Courthouse, Kansas City (4/26/02)
Wyandotte High School, Kansas City (4/30/86)

Appendix D: Endangered Species

The Kansas City region is home to several species of mammals, birds, reptiles, fish and plants listed as endangered or threatened by the U.S. Fish and Wildlife Service. These species are listed below. This list also contains “candidate species”—species that have been studied and proposed for addition to the federal endangered and threatened species list by the U.S. Fish and Wildlife Service. The table contains the common name of the mammal, bird, reptile, amphibian, fish or plant; its scientific name; its habitat; and its status as an endangered, threatened or candidate species according to the U.S. Fish and Wildlife Service. Detailed information on endangered or threatened species in the Kansas City area is available through the USFWS Environmental Conservation Online System.

Endangered Species in the Greater Kansas City Region		
Species	Habitat	Status
American Bittern	Lakes, reservoirs, non-forested wetlands	State endangered
Bald Eagle	Forest land (deciduous, evergreen and mixed), water, streams and canals, lakes, reservoirs, forested and non-forested wetland	Federal threatened
		State endangered
Barn Owl	Residential, cropland and pasture, orchards, groves, vineyards, nurseries, herbaceous rangeland	State endangered
Black-Tailed Jackrabbit	Residential, cropland and pasture, orchards, groves, mixed rangeland, other agricultural land, herbaceous rangeland	State endangered
Chestnut Lamprey	Lower Kansas River and may occur in the Missouri River main stem	State threatened
Eastern Massasauga	Herbaceous rangeland, shrub and brush rangeland, non-forested wetland	State endangered
Eastern Spotted Skunk	Cropland and pasture, orchards, groves, herbaceous rangeland, shrub and brush rangeland, mixed rangeland, forest land (deciduous, evergreen and mixed)	State endangered
Flathead Chub	Streams and canals	State endangered
Gray Bat	No critical habitat rules have been published for the Gray bat	Federal endangered
Indiana Bat	Hibernacula habitat: caves and mines; maternity and foraging habitat: small stream corridors with well-developed riparian woods, upland forests	Federal endangered
Interior Least Tern	Water, streams and canals, lakes, beaches, strip mines, quarries and gravel pits	Federal endangered State endangered
King Rail	Cropland and pasture, streams and canals, non-forested wetland	State endangered
Lake Sturgeon	Streams and canals	State endangered
Mead’s Milkweed	Virgin prairies	Federal threatened

Northern Harrier	Cropland and pasture, rangeland, herbaceous rangeland, shrub and brush rangeland, mixed rangeland, non-forested wetland	State endangered
Pallid Sturgeon	Missouri and Mississippi Rivers	Federal endangered
Peregrine Falcon	Cropland and pasture, herbaceous rangeland, mixed rangeland	Federal endangered State endangered
Redbelly Snake	Wooded regions near rivers and lakes, sandstone woods, wooded hillsides, steep slopes of forested hills, moist areas	State threatened
Sicklefin Chub	Streams and canals	Federal candidate
Smooth Earth Snake	Sandstone woods, rocky hillsides in moist woodlands, deciduous forests, wooded urban areas	State threatened
Snowy Egret	Evergreen forest land, lakes, reservoirs, forested and non-forested wetland	State endangered
Silverband Shiner	Moderately deep, flowing water along sand or gravel bars	State threatened
Sturgeon Chub	Streams and canals	Federal candidate
Topeka Shiner	Streams and canals	Federal endangered
Western Prairie Fringed Orchid	Unplowed, calcareous prairies and sedge meadows. Soil moisture is critical.	Federal threatened

Appendix E: Hazardous Waste Sites

The Kansas City area is also home to a number of sites used for the disposal of industrial byproducts and hazardous wastes. These sites are listed as Class 1 through Class 5 in the Missouri Department of Natural Resources' Registry of Confirmed Abandoned or Uncontrolled Hazardous Waste Disposal Sites in Missouri, referred to as the Registry.

Class 1 Sites

Class 1 sites are defined in the Missouri Registry Annual Report as "sites that are causing or presenting an imminent danger of causing irreversible or irreparable damage to the public health or environment—immediate action required." According to the Missouri Registry Annual Report, the Kansas City area contains two of these Class 1 sites:

- Armour Road Site (Clay County)

The Armour Road Site, located at 2251 Armour Road in North Kansas City, was the location of a herbicide blending facility from 1943 until 1983. The soil is contaminated with extremely high levels of arsenic, antimony, pentachlorophenol and lesser levels of numerous other substances and the groundwater at the site is also contaminated. This contamination is believed to be a result of spills and general operational practices at the facility. The 25,000 square foot building on site is also contaminated. The site, which covers an area of 1.8 acres, is located between an industrial area and a residential neighborhood. South of the property are rail yards, warehouses and industrial facilities. The site is adjacent to a commercial development zone and homes are about 1,200 feet away.

- Lake City Army Ammunition Plant (Jackson County)

The Lake City Army Ammunition Plant, located at the junction of Highways 7 and 78 near Independence, is a seven-square-mile, government-owned, contractor-operated plant that began operation in 1941. It is the largest small arms ammunition plant in the nation. Industrial operations generated large quantities of potentially hazardous waste, including solvents, explosives, heavy metals (such as barium, cadmium, chromium, lead, mercury and silver) and depleted uranium. Since 1941, the facility disposed of operational wastes in lagoons, landfills and burn pits located throughout the facility. Groundwater beneath the site, soil, and surface water are contaminated with volatile organic compounds and heavy metals. Air strippers and groundwater extraction wells were installed to remove contaminants from extracted groundwater and to contain contaminated groundwater plumes. Further investigations leading to final cleanup activities are taking place. Current disposal practices are in accordance with state and federal regulations. However, recent investigations indicate contaminants have migrated off site.

Class 2 Sites

The Missouri Registry Annual Report defines Class 2 sites as "a significant threat to the environment — action required." There are five of these sites in the Kansas City area, including:

- BFI Missouri City Landfill (Clay County)

Browning-Ferris Industries (BFI) Missouri City Landfill is located along Stillhouse Road on a bluff above the Missouri River, about one mile north of Missouri City, west of County Road JJ in Clay County. The site consists of about 200 acres, of which the southern 90 acres were used for waste management activities. The site was originally developed as a sanitary landfill. Additional

industrial waste disposal trenches were constructed, filled and closed after BFI of Kansas City Inc. leased the site in 1972 from Lincoln Brothers Land, Inc. BFI operated the facility from 1972 until 1983. Waste management facilities included a sanitary landfill, a chemical processing center where bulk liquid wastes were received for temporary storage prior to treatment by fixation units, gelatin basins, seven bulk sludge disposal trenches, a chemical landfill, a wastewater treatment pond, a stormwater retention pond and sludge drying beds. At least 160 million pounds of industrial wastes were deposited at the site. Contaminants at the site include solvents, herbicide wastes, organophosphates, waste acids, waste oils, industrial wastewater treatment sludge, paint sludge and heavy metals sludge. Currently, the waste facility is adequately capped, vegetated and well-maintained, and a fence and locked gate control access to the site. Several residences are within less than half a mile.

- Conservation Chemical Company (Jackson County)

The Conservation Chemical Company site is located in an industrial area at 8900 Front Street, about 1.75 miles east of Interstate 435 along Levee Road in Kansas City. The site covers about six acres and is situated on the flood plain of the Missouri River near the confluence of the Missouri and Blue Rivers on the river side of the levee. This site operated as a chemical storage and disposal facility from 1960 to 1980. Waste disposal basins, which were either unlined or poorly lined, were used to receive and store wastes and also served as containers and drying beds for byproduct sludges. Pesticides, herbicides, waste oils, organic solvents, arsenic, acids, cyanide compounds and other materials were disposed at the facility; an estimated 93,000 cubic yards of material was disposed and eventually buried at the site. In 1975, the Missouri Department of Natural Resources investigated the operation and ordered it closed and cleaned up. The site was closed in 1979. Post-closure activities, which concluded in 1990, included capping six lagoons, grading, and placing vegetation on the remaining portion of the site.

- HCI Chemtech — Birmingham Road (Clay County)

The HCI Chemtech — Birmingham Road site is located at 6301 Northeast Birmingham Road in North Kansas City. The facility encompasses 11 acres along the northern bank of the Missouri River. Residences are located about 1,000 feet north of the site. This site is a bulk chemical storage and distribution facility that has been in operation since 1968. Current storage and handling activities are restricted to caustics and asphalt, due to the transfer of some operations to the HCI Chemtech — Stillwell Street facility. During previous site operations, as many as 66 above-ground storage tanks (ASTs) have been used. 46 of those tanks were located in containment areas with earthen floors until 1995, when the floors were paved with concrete. Bulk chemicals were delivered to the facility by trucks, barges and rail car and stored in ASTs. Chemicals have been mixed or repackaged prior to sale or sold in bulk. The truck fleet distributed the chemicals, primarily via tank truck or drums. Spills are the probable source of on-site contamination of soils and groundwater with volatile organic compounds, semi-volatile organic compounds and herbicides. The potential exists for contaminants to discharge into the Missouri River.

- HCI Chemtech — Stillwell Street (Jackson County)

The HCI Chemtech — Stillwell Street site, located at 5200 Stillwell Street in Kansas City, is a bulk chemical storage and distribution facility in operation since 1981. The site is in the Missouri River flood plain, occupying 6.5 acres along the northern bank of the Missouri River levee in a mixed commercial and industrial area. Residences are located approximately one-half mile from the site. Bulk chemicals are delivered to the facility by trucks and rail cars and are stored in ASTs. Chemicals may be mixed, repackaged prior to sale or sold in bulk. Releases and spills are the probable source of contamination of soils and groundwater. Volatile and semi-volatile organic compounds were detected in groundwater at concentrations above health-based screening levels.

Groundwater contaminants originating on the HCI Chemtech property are migrating off site to the north, and the potential exists for site contaminants to discharge into the Missouri River.

- Riverfront Landfill (Jackson County)

The Riverfront Landfill is located on Levee Road at Chouteau along the south bank of the Missouri River from River Mile 363.5 to 359.0 in Kansas City. The 492-acre site operated as a municipal landfill from 1950 until 1972. The site contains myriad hazardous wastes; waste disposed at the site was unregulated and no records exist about the wastes dumped at the site. A portion of the landfill was capped in 1992 and the western portion of the landfill was developed as a city park. Groundwater contamination is possible, due to the site's history, the quantity and type of waste disposed at the site and the hydrogeologic setting of the area. The site was excavated to the water table and filled a liner, so infiltrating materials are likely to contaminate groundwater. Due to burning of liquid wastes at the site, polychlorinated dibenzofurans may have resulted from the burning of environmentally persistent polychlorinated biphenyls (PCBs). At one time, final cover material at the site eroded, exposing solid wastes, which entered the Missouri River (Kansas City corrected this problem). Principal concerns at this site are the potential for human contact with contaminated soils and groundwater.

Class 3 Sites

According to the Missouri Registry Annual Report, Class 3 sites “do not present a significant threat to the public health or the environment — action may be deferred.” There are five Class 3 sites in the Kansas City area:

- Amoco Oil Sugar Creek Refinery (Jackson County)

The Amoco Oil Sugar Creek Refinery is located at 1000 North Sterling in Sugar Creek. This site is the location of a former active oil refinery which began operations in 1904 and ceased refinement of crude oil and production of petroleum products in 1982. The former refinery area consists of about 423 acres. Amoco now operates a marketing terminal and an asphalt plant on the property. Five separate disposal areas of the Amoco property, totaling about 22 acres, are located next to the Missouri River. The registered areas include four inactive tank bottom disposal areas and one inactive sludge disposal area. There is also a land farm for the disposal of leaded gasoline storage sludge near the river, which the EPA has identified as having high concentrations of lead and chromium. Other contaminants identified at the site include cadmium, polycyclic aromatic hydrocarbons (PAHs), oil and sludges, arsenic, mercury, benzene, toluene, ethyl benzene and xylene. The location of the site next to the Missouri River presents problems because of flooding and groundwater contamination. Surface soil contamination is widespread but is contained within berms. During the flood of 1993, the inactive sludge disposal area was covered by floodwater. Groundwater contamination has resulted from past activities at the site, but the groundwater discharge to the Missouri River has had minor impacts on water quality. The Missouri River is used as a drinking water supply by the city of Lexington 31 miles downstream and the Missouri River alluvium supplies drinking water to the city of Independence 2.5 miles downstream. An exposure assessment conducted by the Missouri Department of Health and Senior Services did not uncover any evidence of human exposure occurring off site. However, according to the Missouri Registry Annual Report, the site poses a health risk because of the toxicity of the chemicals present and the known groundwater contamination.

- Independence FMGP #1 (Jackson County)

The Independence Former Manufactured Gas Plant (FMGP) #1 site is located in a combination residential, commercial and light industrial area northwest of the intersection of West Pacific Avenue and South River Boulevard in Independence. Gas plant operations occurred on property

currently owned by the Reorganized Church of Jesus Christ of Latter Day Saints (RLDS). In addition, several of the plant operations buildings were located beneath what is now West Pacific Avenue. The site is located within the drainage basin along the southeast edge of the RLDS Auditorium parking lot and extends beneath West Pacific Avenue. No visual remains of former gas plant structures remain and the entire basin area of the site is covered by vegetation. Waste present on the site is coal tar. Subsurface soil samples collected from the site contained volatile organic compounds and carcinogenic polycyclic aromatic hydrocarbons at concentrations exceeding health-based screening levels, as well as leachable benzene exceeding the Toxicity Characteristic Leaching Procedure regulatory limit of 0.5 parts per million. Although coal tar residuals are present in surface and subsurface soil at the site, the majority of contamination is located between six to seven feet below the ground and is not expected to pose a significant air or soil exposure risk. In addition, the potential for exposure to contaminants and their migration off site is minimal. However, disturbance of the soil (other than regular lawn care and parking lot maintenance) would increase the chance for public exposure to the buried hazardous wastes.

- Lake Lotawana Sportsmen's Club (Jackson County)

The Lake Lotawana Sportsmen's Club is located at 29709 Alley Road in Lake Lotawana. It is a 60 acre private sport club with a recreational small arms firing range. The site is surrounded by nearby residences. The principal environmental concern is lead associated with the operation of the firing range. Surface soils contain elevated concentrations of lead (as high as 4,700 parts per million) and one sample contained leachable lead at a concentration of 181 parts per million, exceeding the Toxicity Characteristic Leaching Procedure regulatory limit of 5.0 parts per million. In addition, low concentrations of lead were detected in sediment samples collected from a downgradient intermittent stream, indicating that some lead is migrating off site. No significant accumulation of lead is expected in the stream, however. The Missouri Department of Natural Resources has determined that no significant exposure risk is present through the soil or surface water. In addition, the potential for groundwater contamination is low to moderate. The chief health concern with this site is human exposure to unacceptable levels of lead-contaminated dust through inhalation or ingestion. Tracking lead-contaminated dust off site is also a concern because of the documented high levels of such contaminants found in the area.

- Plattco Landfill — Riverview Property (Platte County)

The Plattco Landfill — Riverview Property is located on FF Highway in Parkville, on the bluffs above the Missouri River and within a quarter mile of Rush Creek. The site was operated as a sanitary landfill from 1969 until its closure in 1978. Between 1969 and 1972, and prior to the Resource Conservation and Recovery Act (RCRA), a variety of industrial and residential wastes were deposited at the site. Since no waste identification records or transport receipts exist, the exact quantities and characteristics of industrial waste in the landfill can only be speculated. Intermittent inspection reports by the Missouri Department of Health and Senior Services and statements by the former operator indicate that the landfill accepted waste liquids, sludges and solids from local commercial and industrial operations until 1972. The presence of ignitable, corrosive and toxic wastes in significant quantities is probable, but unconfirmed. The wastes that may have been disposed at the site include wastewater treatment sludges and refinery sludges from industrial firms, including clarifier sludges, filtration sludges, paint sludges, solvent wastes, off-spec pesticides, refractory slag and air pollution residues. The main source of off-site migration of contaminants has been discharge periodically observed emanating from the leachate collection sump area. Surface discharge could lead to exposure through ingestion of contaminated surface or groundwater. Contamination of the Missouri River alluvial aquifer may also be possible. The potential for exposure exists due to the absence of sampling data and uncertainty about the kinds and concentrations of hazardous substances at the site (MDNR, 138-140).

- Prier Brass Manufacturing Company (Jackson County)

The Prier Brass Manufacturing Company is located in an industrial area at 7801 Truman Road in Kansas City and operated from 1907 to 1985 as a manufacturer of brass products. The site contained unacceptable levels of leachable lead and cadmium. Contaminated material has been removed from the site and excavated areas have been filled with clean fill. However, contaminated foundry wastes remain under a portion of the main building. The potential exists for off-site contamination via surface water, due to the proximity of waste materials to the Blue River (it is possible for floodwaters and surface runoff to wash contaminants into the river). The completion of removal action has decreased this threat, however.

According to the Missouri Registry Annual Report, municipal drinking water systems downstream are not expected to be adversely impacted by contaminants from the site unless a major release occurs. Also, it is likely that any effects of contamination on groundwater would be localized. Reoccupation of the site and ongoing renovation, however, raise the possibility of worker and visitor exposure to contaminants still present under the main building on the site.

Class 4 Sites

The Missouri Registry Annual Report defines Class 4 sites as being “properly closed--require continued management” (MDNR, 3). Two Class 4 sites exist in the Kansas City area:

- ARMCO (Jackson County)

ARMCO is an active steel manufacturing plant located at 7000 Winner Road in an industrial area of Kansas City. From 1962 to 1980, the company used two landfills at the site for the disposal of electric furnace baghouse dust generated by steel manufacturing processes. This dust was found to contain leachable quantities of lead and cadmium, as well as 10 to 12 percent zinc. This industrial waste became regulated by RCRA after 1980, and the two landfills are capped and covered with vegetation. Although no environmental problems currently exist, the potential exists for surface and groundwater contamination due to the leachable nature of the waste. A study conducted by the U.S. Geological Survey and Missouri Department of Natural Resources found that the only release of contaminants from the site appears to be from surface run-off into the Blue River. This study revealed a doubling of zinc levels and smaller increases in the concentration of lead in the river immediately following rainstorms. Cancer deaths between 1983 and 1993 for this site's study population were higher than expected, compared to statewide cancer deaths. However, two natality studies found no significant differences compared to state averages and an exposure investigation by the Missouri Department of Health and Senior Services did not document any significant exposure from this site. The Missouri Registry Annual Report indicates a health threat exists at this site, based on available data (MDNR, 175-177).

- Lee Chemical (Clay County)

The 2.5-acre Lee Chemical site is located south of old Highway 210 and north of the railroad tracks, approximately 0.7 miles east of Highway 291 in Liberty. This site was used for packaging a variety of chemicals from 1966 to 1974, when Lee Chemical abandoned the facility. City of Liberty officials removed several hundred drums of chemicals on the site in 1977. Although the visible contamination has been removed, analyses indicate trichloroethylene (TCE) and volatile organic compounds are still present in groundwater and soil. In 1980, a drinking water study detected TCE in the city's drinking water wells and Lee Chemical was identified as the source of the TCE in the city's well, located a quarter-mile east of the site. Interim response and remedial actions by the city of Liberty, as well as well field management techniques and treatment modifications, have reduced TCE levels in the drinking water to below detection limits; no wells currently supplying drinking water to the city contain detectable levels of TCE. In addition, a new municipal well

field was developed about two miles from the site. Although the city of Liberty's remedial actions were very effective, a health risk still exists at the Lee Chemical site, since levels of TCE in the groundwater (but not in the city's public drinking water system) are still above the public drinking water standard (MDNR, 16, 201-204).

Class 5 Sites

The Missouri Registry Annual Report defines Class 5 sites as "properly closed with no evidence of present or potential adverse impact — no further action required" (MDNR, 3). Since Class 5 sites are removed from the registry, they are not included in this plan.

National Priorities List

Four of the aforementioned Class 1 through 4 sites are also included in the U.S. Environmental Protection Agency's (EPA) National Priorities List (NPL). The NPL is the EPA's list of national priorities among the known or threatened releases of hazardous substances, pollutants or contaminants throughout the United States (www.epa.gov). Registry sites on the NPL include:

- Armour Road site in North Kansas City
- Conservation Chemical Company site in Kansas City
- Lake City Army Ammunition Plant in Independence
- Lee Chemical site in Liberty

Former Manufactured Gas Plants

Prior to the availability of natural gas, many municipal and industrial gas plants manufactured gas from coal. These sites are now known as "former manufactured gas plants" (FMGPs). Many wastes, including coal tar, were generated by the coal gas production process at these plants. These wastes were often spilled or buried on site. The primary chemical contaminants in coal tar are potentially carcinogenic polycyclic aromatic hydrocarbons and volatile organic compounds. Other contaminants that may present a risk at FMGP sites are cyanide and several kinds of metals. The Missouri Registry Annual Report lists eight confirmed FMGP sites in the Kansas City area.

Wood Treating Facilities

The wood preservation process involves the penetration of a preservative, usually under pressurized applications, into the timber. Common preservatives used in this process include chromated copper arsenate (CCA), copper naphthenate, creosote and pentachlorophenol. Past mismanagement of these preservatives at wood-treating facilities has caused significant contamination of soil and groundwater at some sites. Contamination is generally caused by excess preservative from the treated wood dripping onto the ground. These chemicals contaminate the soil and groundwater and can potentially be transported a considerable distance from the site. The Missouri Registry Annual Report lists five confirmed wood treater sites in the Kansas City area.

"Tier II" Facilities

Federal and state Emergency Planning and Community Right-to-Know regulations require that facilities that have on site (1) more than 10,000 pounds of hazardous materials for which a Material Safety Data Sheet (MSDS) is required; (2) more than 500 pounds, or the threshold planning quantity, of extremely hazardous substances as defined by 40 CFR Parts 300 and 355; or (3) more than 100 pounds of explosives or blasting agents, must provide the Missouri Emergency Response Commission (MERC), Local Emergency Planning Committees (LEPC) and local fire departments with annual reports (known as Tier II reports) of the types and quantities of these hazardous materials (MERC website,

online data). There are more than 700 of these “Tier II” facilities in Cass, Clay, Jackson, Platte and Ray counties.

Risk Management Program (RMP)

Section 112 (r) of the Clean Air Act established the Risk Management Program requirements for facilities processing or manufacturing one or more of 140 acutely toxic substances, flammable gases, and volatile liquids at certain threshold quantities. Under these requirements, industry has the obligation to prevent accidents, operate safely, and manage hazardous chemicals in a safe and responsible way through hazard assessment, a prevention program, and an emergency response program. These programs are summarized in a risk management plan (RMP). RMPs are submitted to the EPA with a required update of at least once every five years. The EPA maintains a reading library for RMPs and information contained in these plans can be accessed by permission of the EPA. Elements in the plan include:

- An off-site consequence analysis that evaluates specific potential release
- Scenarios, including worst-case and alternate scenarios.
- A five-year accident history of releases of regulated substances.
- An integrated accident prevention program.
- An emergency response program.
- An overall management system to supervise the implementation of these
- program elements.

There are a combined 52 RMP facilities in Johnson, Leavenworth, Wyandotte, Cass, Clay, Jackson, Platte and Ray counties.

FORMER MANUFACTURED GAS PLANTS			
Site	Address	County	Status
Excelsior Springs FMGP (Excelsior Springs Light & Power)	400 West Excelsior, Excelsior Springs	Clay	Negotiations for cleanup ongoing; EPA removal ongoing
Independence FMGP #1	Pacific and Grand Avenue, Independence	Jackson	Listed in Registry
Independence FMGP #2 (Missouri Gas Energy)	23rd Street and Pleasant Avenue, Independence	Jackson	MDNR Site Evaluation Unit investigation planned; SAU investigation planned
Kansas City FMGP #1 (Kansas City Coal Gas Station A)	East 1st Street and Campbell, Kansas City	Jackson	Voluntary Cleanup Program; cleanup ongoing
Kansas City FMGP #2 (Kansas City Coal Gas Station B)	Campbell and East 3rd Street, Kansas City	Jackson	Voluntary Cleanup Program; cleanup ongoing
Kansas City FMGP #3 (MGE Natural Gas Storage/Kansas City Gas Light)	20th and Indiana Avenue, Kansas City	Jackson	Voluntary Cleanup Program - Complete
Kansas City FMGP #5 (Missouri Gas Company)	Southwest Station (south of 25th Street), Kansas City	Jackson	Voluntary deed restriction filed SAU
Parkville FMGP (Parkville Oil Company/Hugh T. Jones)	Not applicable	Platte	MDNR Site Evaluation Unit; no further action planned

WOOD TREATING FACILITIES			
Site	Address	County	Status
A.K. Gibbon Lumber (Gibbon Lumber)	1301 West 13th Street, Kansas City	Jackson	MDNR Site Evaluation Unit investigation planned; cleanup pending
Curt Bean Lumber Company, Inc.	1320 E. Old Lexington Road, Buckner	Jackson	EPA investigation ongoing
Kerr-McGee Chemical Corporation - Kansas City	2300 Oakland, Kansas City	Jackson	Remedial action ongoing
Koppers Company, Inc. Forest Products Division (Beazer East)	6740 Stadium Drive, Kansas City	Jackson	Remedial action ongoing
Southeast Wood (Georgia Pacific; International Paper Company)	Walker Road & Highway 58, Pleasant Hill	Cass	Voluntary Cleanup Program; cleanup complete
Universal Forest Products (Southwest Company, Inc.)	2600 Precision Drive, Harrisonville	Cass	EPA investigation planned