Building a More Competitive Bluegrass Region

2022

Building a More Competitive Bluegrass Region

Lexington and Central Kentucky

The Bluegrass Region served by Commerce Lexington includes nine Kentucky counties: Bourbon, Clark, Fayette, Franklin, Jessamine, Madison, Montgomery, Scott and Woodford. For more than two decades, Commerce Lexington has worked regionally through the Bluegrass Alliance, Central Kentucky Policy Group and Leadership Central Kentucky to promote economic development, job creation, workforce development and overall business growth in Lexington and the region. The goal of regional organization is to provide more regional continuity in key areas related to economic growth including recruiting and retraining business in the region, advocating for policy changes that benefit the regional economy and developing leaders who understand the impact of regionalism to economic competitiveness.

Faced with a rapidly changing competitive landscape, Commerce Lexington brought together a group of key regional stakeholders and the consulting team from Economic Leadership to create actionable intelligence about the region's current

economy and future competitiveness. This report resets the competitive landscape post-pandemic, identifies areas for attention, examines future growth opportunities and prioritizes the actions needed.

The goal was not to create an extensive work plan with dozens of action items for all the organizations involved. It was to identify a limited number of new efforts that would be impactful, provide benefit to the whole region, be financially feasible, and have the broad support needed to be implemented by Commerce Lexington in partnership with other regional stakeholders.

Events over the past few years have accelerated business disruption and rewritten competitiveness between regions. Workforce has always been important; now it is the top factor for investment decisions. Technology permeates every industry but seems to be concentrating jobs in fewer "chosen" regions. The COVID corporate ripples have raised the importance of risk factors such as workforce health, weather, crime rates and financial stability. Global economic integration is being rethought, with more redundant supply chains, reshoring and government intervention likely. Consumers have had time to think about where they want to live, how they want to work and what they value. Finally, place-specific data analytics are easier to get and are used extensively by businesses and site selectors.

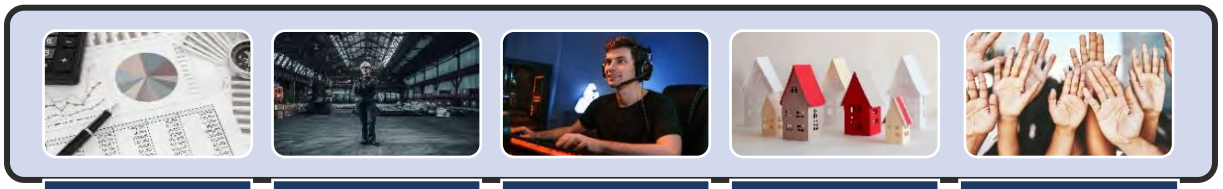
For the communities of the Bluegrass Region in central Kentucky, now is the time to look forward, evaluate, collaborate and invest in action.

All strategy development begins with an assessment of the regional economic reality and identifies future trends that will impact the region in the coming years. Next, you determine what the local stakeholders want for their region in the future. The final step is to identify, and then implement, specific actions to move the region from where it is to where its leaders aspire to be. Successful strategic action agendas are future-focused, realistic, actionable, appropriately resourced, and are regularly updated.

Current Conditions - The Regional Economy

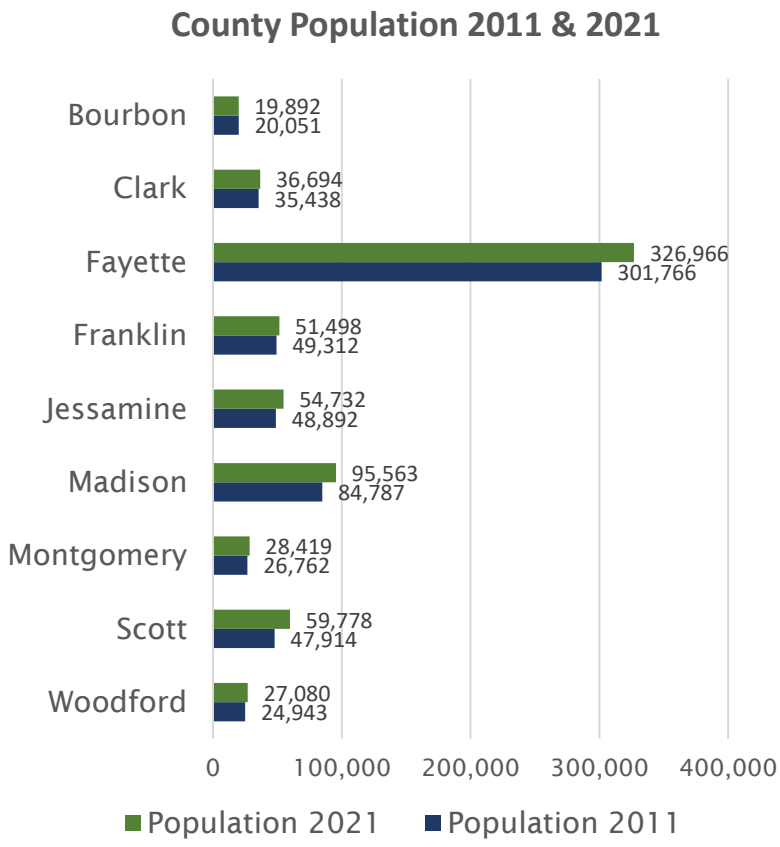
Economic Data

The examination of the region's current conditions includes an economic overview, cluster analysis, technology sector evaluation, housing overview and an examination of regional strengths and weaknesses from engaged stakeholders.



Economic Data	Cluster Analysis	Technology Sector Evaluation	Housing Overview	Stakeholder Analysis

The Bluegrass Region is unique and does not align with either the Lexington-Fayette Metropolitan Statistical Area (MSA) or with the Lexington–Fayette–Richmond–Frankfort combined statistical area. The region covered in this report includes nine Kentucky counties: **Bourbon, Clark, Fayette, Franklin, Jessamine, Madison, Montgomery, Scott, and Woodford.**

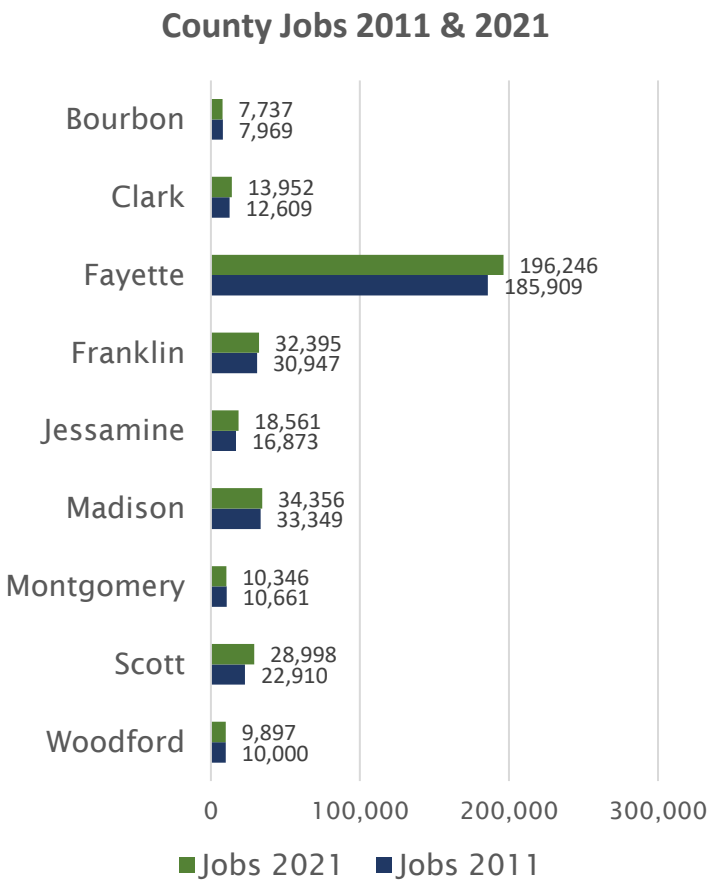


The population of the Bluegrass Region is approximately 700,000 with regional employment just over 376,000. The population is projected to grow by about 20,000 (2.8%) over the next five years, decelerating from the 25,660 increase (3.8%) over the past five years. The percentage of young

adults aged 25-39 is below the national average and overall racial diversity is low, about half the national average.

The region's educational attainment for bachelor's degrees is just above the national average, with associate degree holders slightly below the national average. The region's strong universities, colleges and community and technical colleges are producing 20,000 graduates a year and graduates have increased by 14 percent over the past five years.

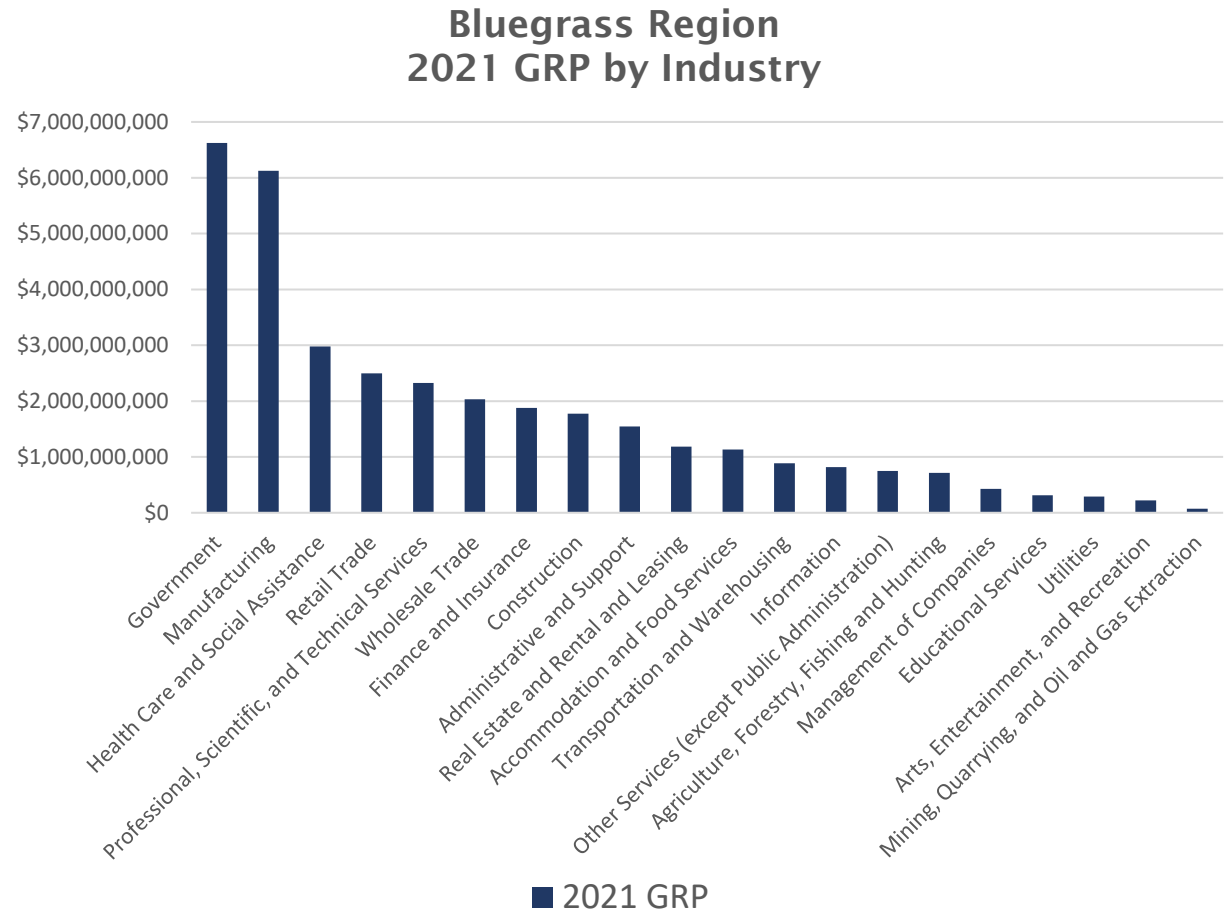
The past few years have included a pandemic and global recession, and regional data reflects the impact. Average annual jobs in the region have declined by slightly more than 10,000 between 2019 and 2021.The biggest losses are in Accommodation and Food Services, Arts and Entertainment, Retail Trade and Manufacturing. Projections suggest modest job growth between now and 2026.



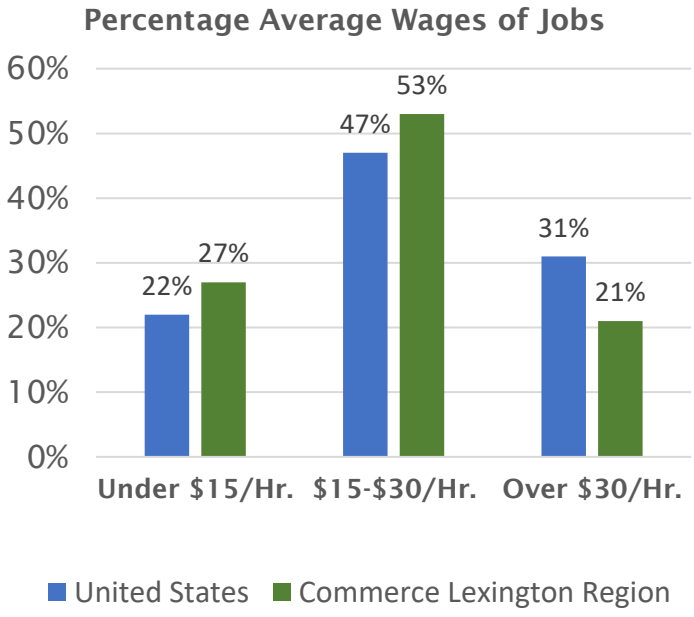
The largest industry sectors in the region include government, manufacturing, and health. The region also has double the national average in agriculture sector jobs and above the U.S. average for jobs in accommodation and food services and retail trade.

Important data for any region is understanding the relative impact of industries on the overall economy, measured as the gross regional product (GRP). For the Bluegrass Region, government,

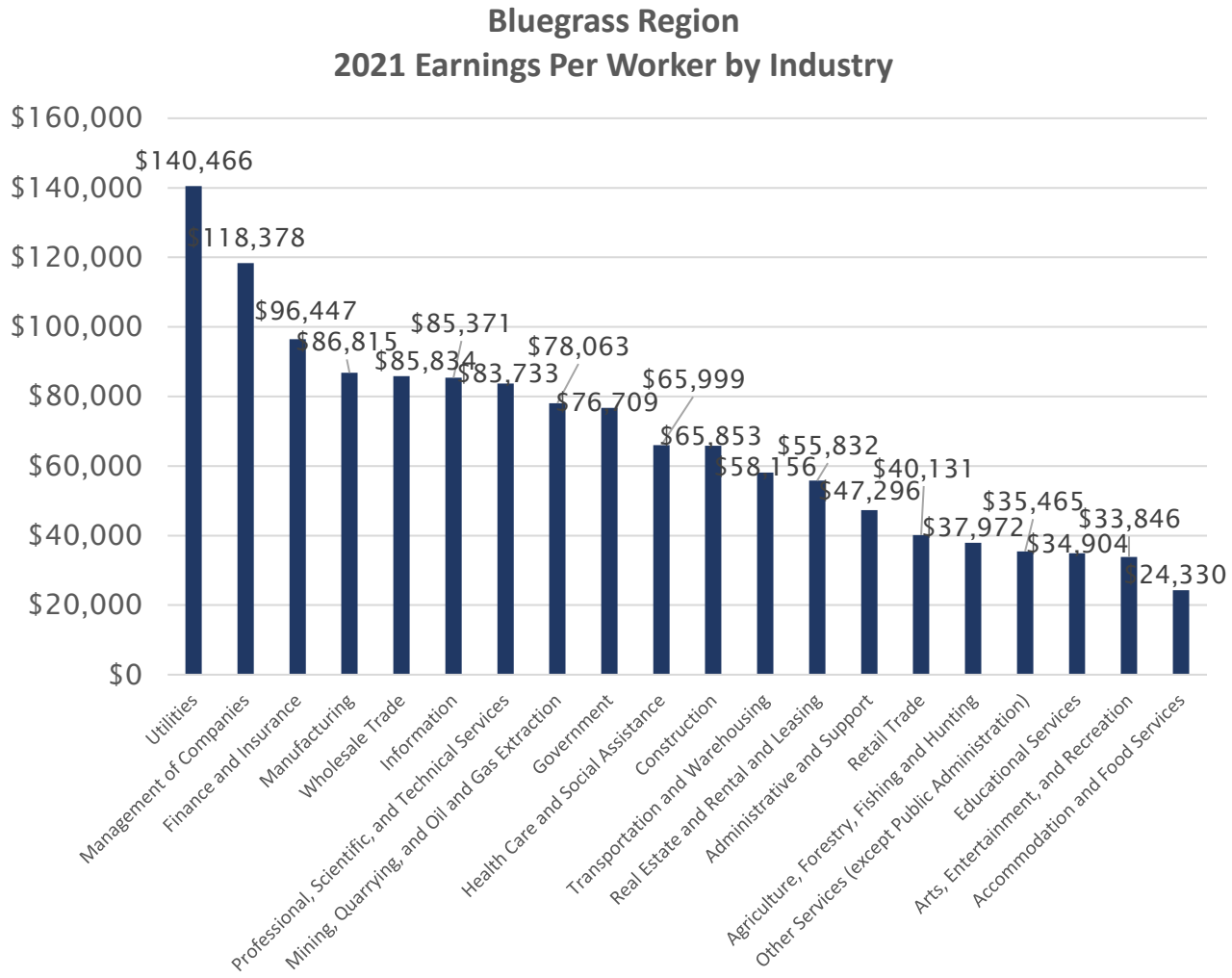
manufacturing, and health combine to represent just under 46 percent of the total GRP.



The average earnings per job in the region is $62,500, well below the national average of $76,600. Offsetting some of the difference is the lower regional cost-of-living, currently estimated at 95.5 percent of the national average. Compared to the national average, the region's jobs mix includes a higher percentage of lower paying jobs and a lower percentage of jobs that pay wages in excess of $30 per hour.



Wages vary widely between industries with utilities, management of companies, finance and insurance, manufacturing and wholesale trade providing the highest annual earnings in the region. The lowest earnings are in accommodation and food services, arts, entertainment and recreation, educational services, other services, and agriculture.



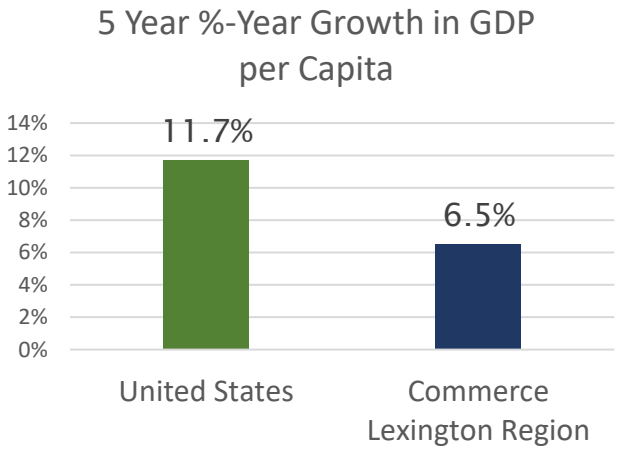
Like much of the country, the region's economy is experiencing rapid, disruptive change. The fastest growing industries regionally are professional, scientific, and technical services, health care, construction, and wholesale trade.

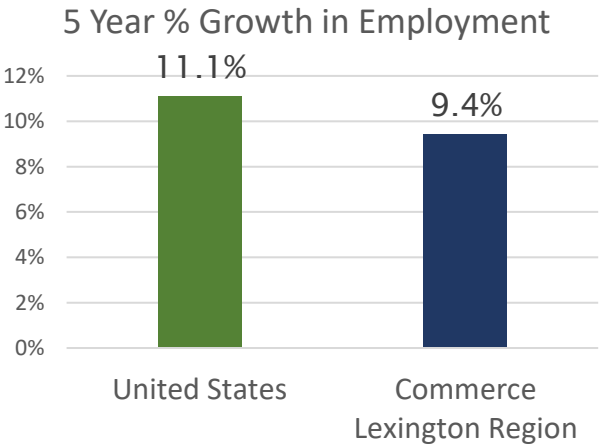
There are many types of jobs within each industry. The occupations with the highest headcounts in the region and their median hourly earnings are listed below. According to the MIT calculator, two adults in Kentucky - both working full-time – with one child would each need to earn $16.88 per hour, (about $34,400 per year) to minimally support their family.

	Number of Jobs	Median Hourly Wage
Office and admin support	47,993	$17.21
Sale and related	32,609	$12.97
Transportation and material moving	32,433	$15.86
Food preparation and serving	30,535	$10.07
Production	29,563	$19.08
Healthcare practitioners	25,464	$28.78
Management	23,581	$35.59
Educational instruction	20,348	$24.35
Business and financial operation	17,930	$28.47
Installation, maintenance, and repair	14,926	$21.67

The occupations adding the most jobs over the past five years are **business and financial operations** ($28.47/hr.), **transportation** and **material moving** ($15.86/hr.), **management** ($35.59/hr.), **community and social service** ($20.37), **healthcare** ($28.78/hr.), **life, physical and social science** (25.65/hr.) and **computer and mathematics** ($31.88/hr.). Many of these new jobs are higher paying, but also require higher skills.

The region has experienced steady growth over the past five years, but slower than the national economy. In addition to below average GDP growth per capita and employment growth, the region also lags the national average in personal income growth.





Kentucky Competitiveness

The evaluation of where to place a new facility, or which existing facility to expand, almost always includes an assessment of the state. How business friendly is Kentucky? How does its tax climate compare? Is the state building and maintaining good infrastructure? Can it educate, train, and attract the workers needed?

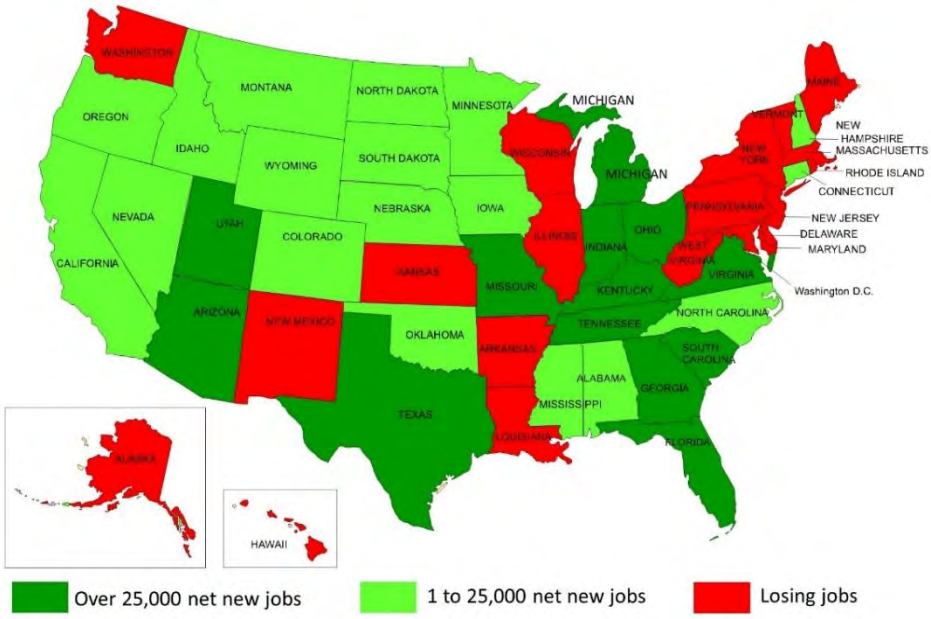
Many organizations use multifactor analysis to rank states. Some, like the Tax Foundation, look at one aspect of competitiveness. Last year the Tax Foundation ranked Kentucky as having the 19th best overall tax environment in the country. Individual rankings included #21 for property taxes, #19 for corporate taxes and #13 for sales tax. Neighboring state rankings include Indiana at #9 overall, Tennessee #18, and Virginia #26.

Other groups take a more holistic approach and create several multifactor indexes to measure business climate, workforce, innovation, quality of life, and cost of living. Each set of criteria is different. The most recent CNBC ranking places Kentucky 26th overall. The state is rated among the 15 best for the cost of doing business (6), but in the bottom 15 for business friendliness (42), education (39), access to capital (38), and life/health/inclusion (36).

Economic Leadership created a multifactor analysis that is used by some state manufacturing associations to evaluate manufacturing competitiveness. In that assessment Kentucky is rated as the 13th best state for manufacturing. The individual rankings had Kentucky in the top 20 states for business climate, workforce, and infrastructure. The lowest ranking was for innovation capacity.

The map at the right shows manufacturing job growth since 2010. Kentucky is among the national leaders.

A strong, competitive Kentucky is necessary for success in the Bluegrass Region. Sustained engagement with state policy makers remains essential.



Cluster Analysis

Another way to evaluate a regional economy is to look at traded clusters. Traded clusters are groupings of industries that serve markets outside of a region (domestically and/or internationally), bringing money into the region by exporting. That money is then spent on local cluster activities such as restaurants, home building, entertainment, and personal services. Regions are often branded by their key clusters: think energy in Oklahoma City, music in Nashville, or banking in Charlotte.

Strong clusters also typically contain specialized local support such as suppliers, infrastructure, and education and training. Targeting clusters as an economic development strategy can narrow marketing efforts to those industries which are most likely to thrive in the region. Nationally, traded clusters account for only 36 percent of employment; however, they are responsible for 50 percent of income and over 90 percent of innovation.

To determine the current state of traded clusters in the Lexington, KY region employment and wage data for over 680 6-digit NAICS code industries was analyzed for the MSA region. These industries were then grouped into 53 traded clusters. The cluster groupings are very closely related to those provide by US Cluster Mapping, a project produced by the Harvard Business School. Those cluster groupings have not been updated to reflect the most recent iteration of NAICS codes. Therefore, Economic Leadership used EMSI's conversion of the Harvard clusters using to 2017 NAICS codes. These clusters were then evaluated on recent growth, location quotients, wages, and total employment.

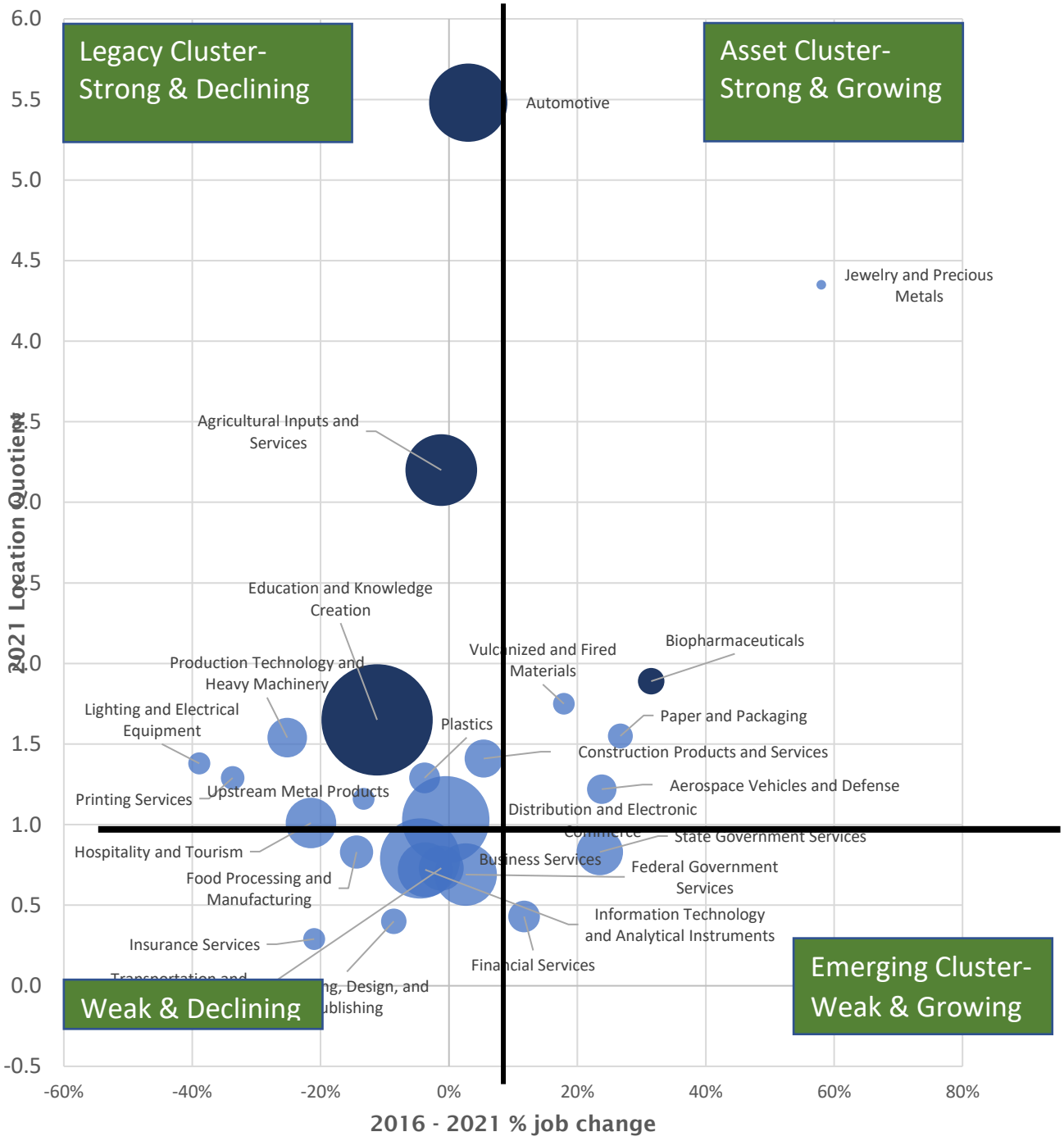
Traded Clusters serve markets outside the region, concentrate in region's that provide a competitive advantage, and include jobs in manufacturing, management consulting and agriculture.

Local Clusters sell products and services primarily for the local market, and are found in every region.

In the Bluegrass Region in addition to traditional traded clusters like automotive manufacturing and tourism, major institutions like the University of Kentucky, state government and specialty hospitals also serve as traded clusters.

Location quotients (LQs) help demonstrate the clusters that have high concentrations in a region. LQs are the concentration of a cluster's employment in the region compared to national employment levels. A location quotient of 1.00 or greater demonstrates a higher concentration than what would be expected based on national levels. This can reveal which clusters are strongest in the region and generating money from outside the region through exporting of goods or services. LQs

when mapped alongside employment growth can show which clusters are thriving or declining. The chart below shows where regional clusters fall on the map and how they correspond to strength and growth.



Some of the densest concentrations, measured by their location quotients (in dark blue on the map above) are not surprising: automotive, agriculture, biopharmaceuticals, and education and knowledge creation. Large employers in

the region include Toyota, the horse industry, and the University of Kentucky. The fastest growing clusters in the region are business services, distribution and e-commerce, state government services, aerospace, automotive and paper and packaging.

The region has a diverse economy with strong clusters in the sectors below.

- Automotive
- Agricultural Inputs and Services
- Education and Knowledge Creation
- Biopharmaceuticals
- Vulcanized and Fired Materials
- Paper and Packaging
- Aerospace
- Construction Products & Services
- Plastics

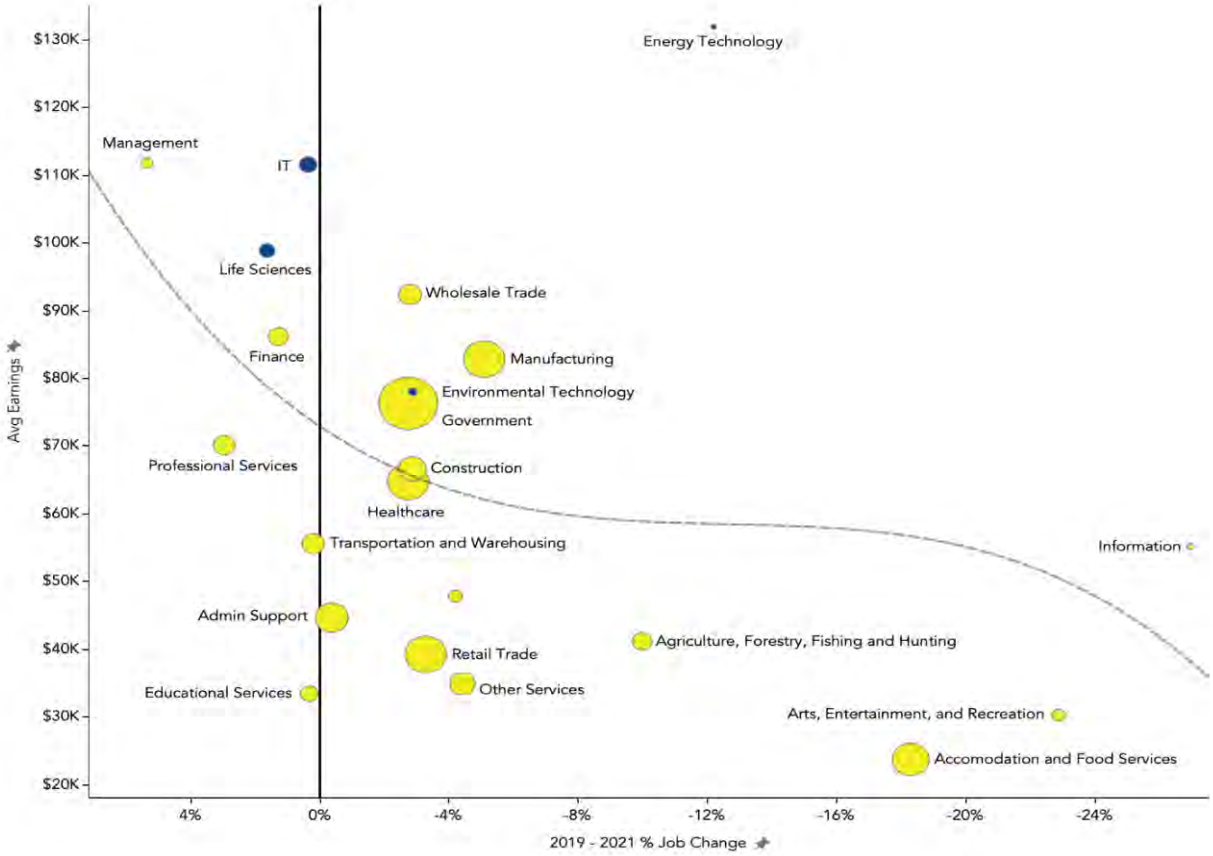
Sectors that are emerging and may offer new opportunities include the following. More work will be needed to match these opportunities with regional marketing efforts, but the data suggests that there are several areas where added success is possible.

- Business Services
- Distribution & E-Commerce
- Transportation & Logistics
- Wood Products

Technology Sector Analysis

During the COVID-19 pandemic the technology industry emerged stronger. One reason for tech's resiliency was that so much of the work was able to easily shift to virtual. Most tech workers could work from home and largely conduct their business as usual. While many sectors lost jobs in the region over the past two years, two subsectors of technology grew: information technology (hardware, software, and communications equipment) and life sciences.

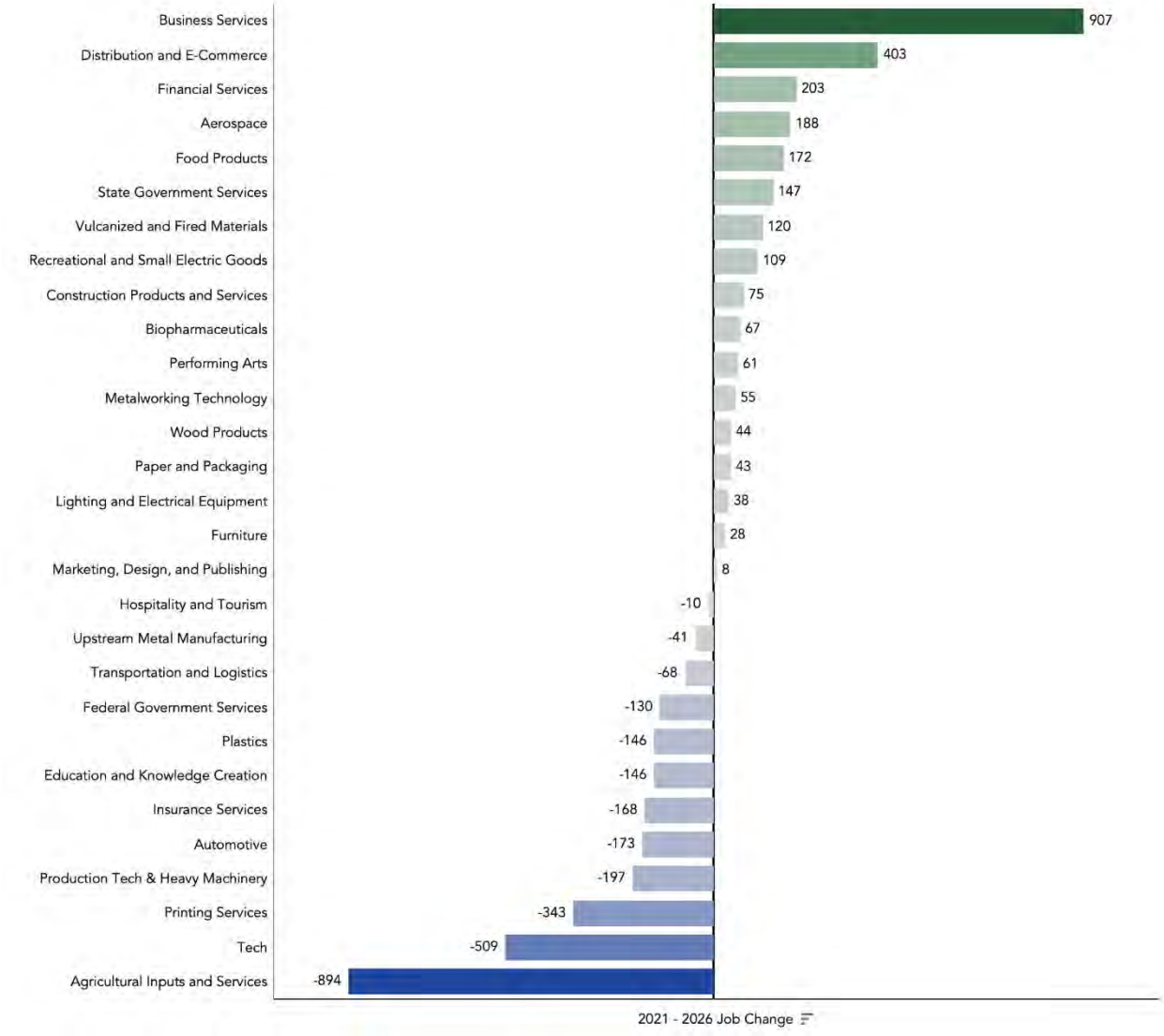
Lexington, KY Region Pandemic Impacts by Industry and Earnings



Source: EL calculations based on EMSI 2022.1

Despite these successes, current national predictions from EMSI suggest that there could be a loss in total regional technology jobs in the next five years. Kentucky is one of the states that had a net loss of technology jobs between 2015 and 2020. Nevertheless, Lexington has many of the attributes attractive to the technology industry, such as strong university programs, a high quality of life, a growing entrepreneurial ecosystem, and affordability. So, despite the general job predictions, the opportunity to attract technology jobs, companies and workers should exist. A more detailed examination was warranted.

Predicted Employment Change in Lexington, KY



Source: EMSI 2022.2

To analyze the region's technology industry, 88 separate 6-digit NAICS code industries were identified and examined. The Total Technology Industry

(referred to here as the 'tech industry') was further broken down into four sub-categories:

- Energy Technology
- Environmental Technology
- Life Sciences
- IT, Telecom, Hardware & Software (Tech Core)

These categories were chosen based on several definitions of the tech industry. The primary source for defining the tech industry is TechAmerica Foundation's 2013 Technology Industry Classification.

To measure tech occupations that exist across all industries, 62 separate 5-digit SOC codes were reviewed across computer and engineering occupations.

To calculate metrics and trends of the tech sector in terms of employment, wages, and establishments, Economic Leadership used data developed by Economic Modeling Specialists International (EMSI), which is largely based on the Bureau of Labor Statistics (BLS) Quarterly Census of Employment and Wages. EMSI data fills in gaps from the BLS non-disclosure policy by amalgamating several economic data sources to provide the best estimates for the years 2001-2031.

Through 2021 the region had slightly over 1,900 technology businesses with over 14,000 employees. The total presence is small, representing only four percent of total regional employment.

Information Technology (IT) includes sub-categories related to electronic computers and storage, radio and television, satellite telecommunications, computer facilities, communications equipment, and other electrical equipment.

Energy Technology includes sub-categories related to natural gas, petroleum, coal, mining, fossil fuel, solar power, wind power and oil and gas operations.

Environmental Technology includes sub-categories related to sewage treatment, steam, electricity, batteries, hazardous waste, solid waste, septic and remediation services.

Life Sciences include sub-categories related to medicinal and botanical manufacturing, pharmaceuticals, electro-medical manufacturing, surgical and dental manufacturing, and research and development in biotechnology.

Lexington, KY Region Technology Industry Summary Statistics, 2021

Indicator	Technology Industry	Region Total	Tech Percentage
Employees	14,177	352,452	4.0%
Establishments	1,910	22,331	8.6%
Wages (millions)	$1,473	$21,830	6.7%

Source: EL calculations based on EMSI 2022.1

Within the four sub-categories, life sciences has seen strong growth since 2016, and IT has also grown through the pandemic. The biggest job loss percentages have been in the energy sector. It is a volatile time in the energy sector as new technology is causing upheaval. While technology manufacturing jobs have declined, there has been strong growth in technology services.

Lexington, KY Region's Tech Industry by Sub-Categories, 2021

Technology Categories	Employment 2021	Employment Change 2016-2021	Establishments 2021
Energy Tech	634	4.0%	46
Environmental Tech	1,553	-11.9%	125
Life Sciences	5,291	21.0%	484
IT	6,699	-1.7%	1,255
Output Category	**Employment 2021**	**Employment Change 2016-2021**	**Establishments2021**
Tech Services	11,097	12.4%	1,816
Tech Manufacturing	3,080	-16.6%	95
TOTAL TECH INDUSTRY	**14,177**	**4.5%**	**1,910**

Source: EL calculations based on EMSI 2022.1
Note: Some values may not add to the exact total due to rounding.

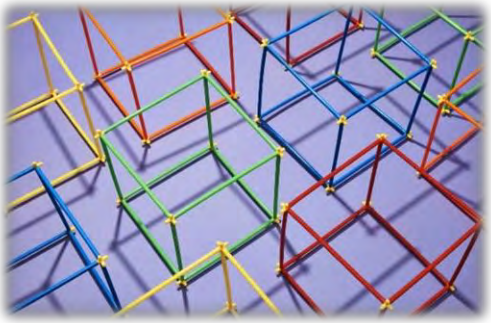
Technology jobs typically have high average wages, although even accounting for the lower local cost of living, wages in the local market are below national averages. While the goal would be to have higher wage jobs, affordability has risen in importance recently and the current wage level can be a competitive advantage for technology service company attraction efforts.

Average Annual Earnings per Worker by Sub-Industry, 2021

Technology Categories	Lex, KY	Lex, KY (Purchasing Power)	National Average
Energy Tech	$144,400	$151,200	$165,700
Environmental Tech	$70,100	$73,400	$89,100
Life Sciences	$100,700	$105,400	$142,100
IT	$115,900	$121,400	$172,900
Output Categories	**Lex, KY**	**Lex, KY (Purchasing Power)**	**National Average**
Tech Services	$100,000	$104,700	$156,400
Tech Manufacturing	$130,000	$136,200	$157,000
TOTAL TECH INDUSTRY	**$106,500**	**$111,500**	**$156,500**

Source: EL estimates based on EMSI 2022.1

Disaggregating the data into super sub-industries shows the strong regional growth in software, R&D and testing, and life sciences manufacturing. The map on the next page shows job change and location quotients at the granular level. There is good growth in several emerging sub-sectors.

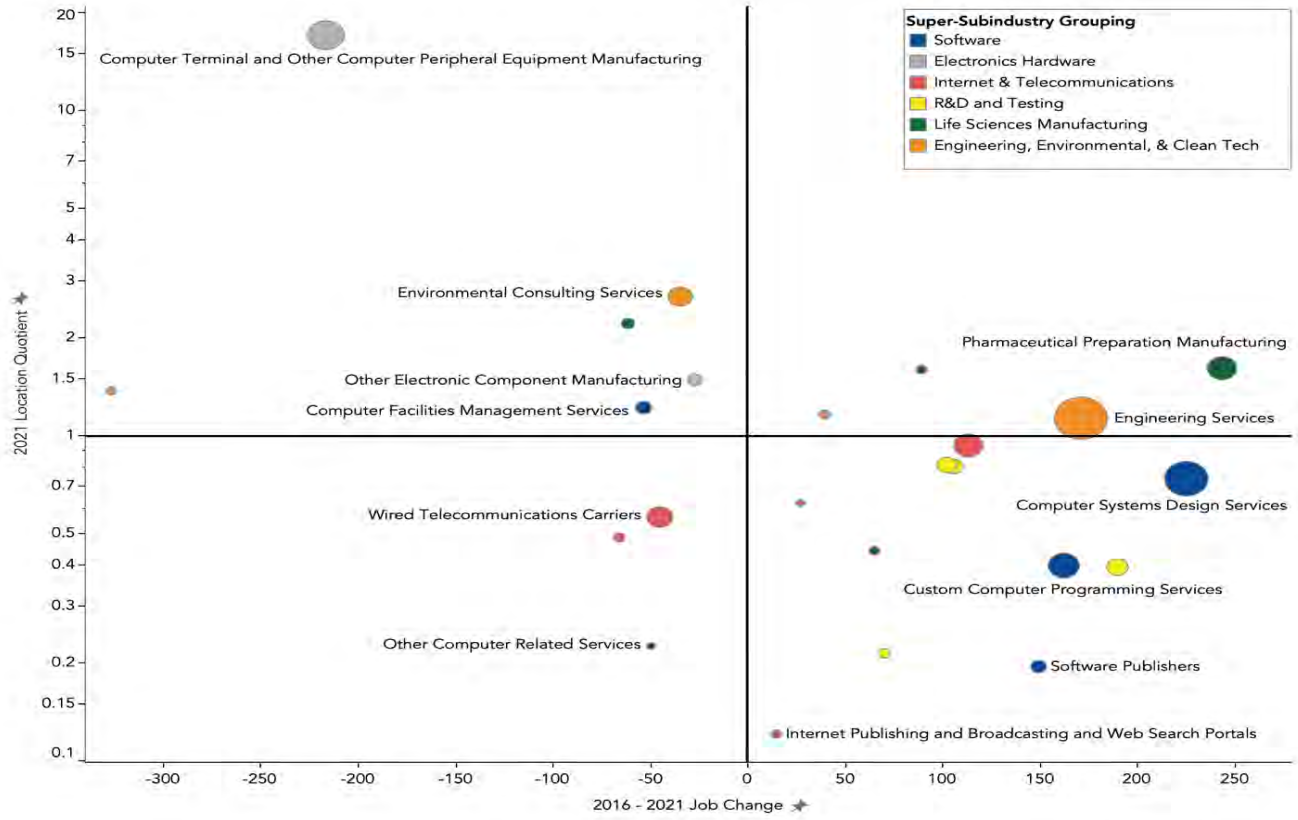


Lexington, KY Region's Tech Industry by Super Sub-Industries, 2021

Sub-Industries	2021 Employment	Employment Change (2016-2021)	Establishments (2021)
Software	3,305	15.1%	1,015
Electronics Hardware	1,620	-27.4%	31
Internet & Telecommunications	1,775	3.5%	210
R&D and Testing	1,272	54.1%	209
Life Sciences Manufacturing	1,286	30.4%	52
Engineering, Environmental, & Clean Tech	3,607	-3.4%	283
Remediation and Waste Management	679	14.7%	65
Renewable Energy	1	-18.4%	1
Other Energy and Power Generation	633	4.0%	45
TOTAL TECH INDUSTRY	14,177	4.5%	1,910

Source: EL estimates based on EMSI 2022.1

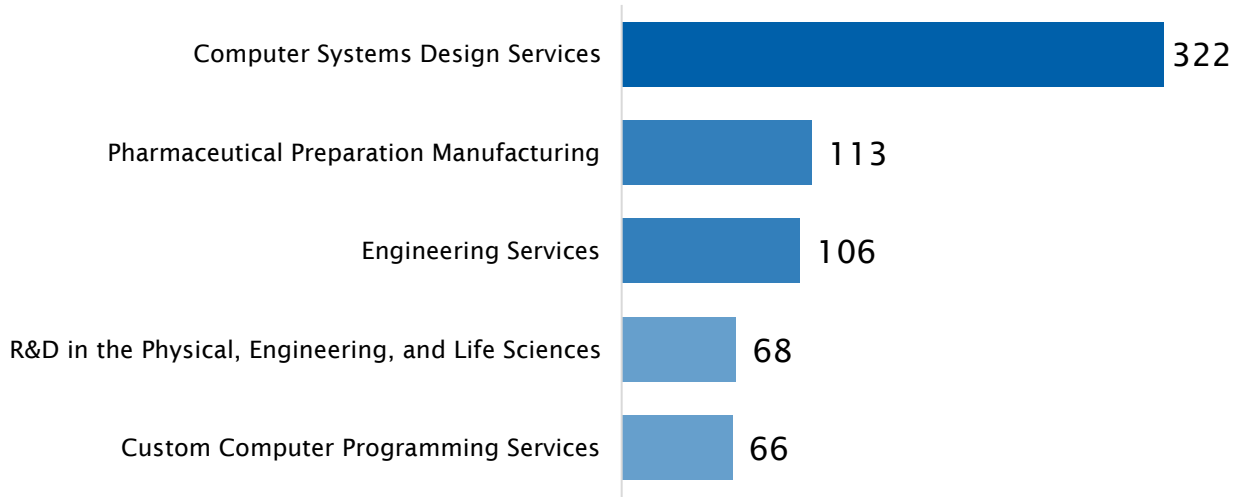
Lexington, KY Region's Tech Industry by 6-Digit Industries, 2021



Source: EL estimates based on EMSI 2022.1

EMSI is predicting continued growth in computer systems design, pharmaceuticals, engineering and research and development.

Top Predicted Growing 6-Digit Industries in Tech Sector, 2021 – 2026



Source: EL estimates based on EMSI 2022.1

Occupation growth projections can be used to guide investments in training and education. Projections suggest that good paying jobs will be available in the technology field. The region will be competitive with sufficient talent in computers, mathematics, and engineering to ensure the success of technology companies.

Top 10 Tech Occupations in Lexington, KY Region, 2021

Description	2021 Occupations	Change in Employment, 2016-2021	Median Annual Wage[(a)]	Annual Openings
Project Management Specialists and Business Operations Specialists, All Other	3,029	590	$63,300	324
Software Developers and Software Quality Assurance Analysts and Testers	1,774	369	$84,000	195
Management Analysts	1,413	520	$64,500	212
Computer User Support Specialists	1,330	250	$50,000	153
Market Research Analysts and Marketing Specialists	1,262	355	$49,000	176
Industrial Engineers	1,169	237	$78,400	123
Computer Systems Analysts	908	42	$68,100	80
Mechanical Engineers	893	29	$84,500	82
Civil Engineers	829	24	$83,100	80
Computer and Information Systems Managers	728	235	$105,700	91
All Tech Occupations[(b)]	**22,279**	**3,226**	**$67,600**	**2,685**

Source: EL estimates based on EMSI 2022.1

[a] Wage estimate is different from the average annual wage values in the previous charts. The average annual wage value is calculated across all occupations in the tech industry and measures the average versus the median.

[b] This is a sum of the 62 SOC codes not only the 10 most common occupations displayed in the table above.

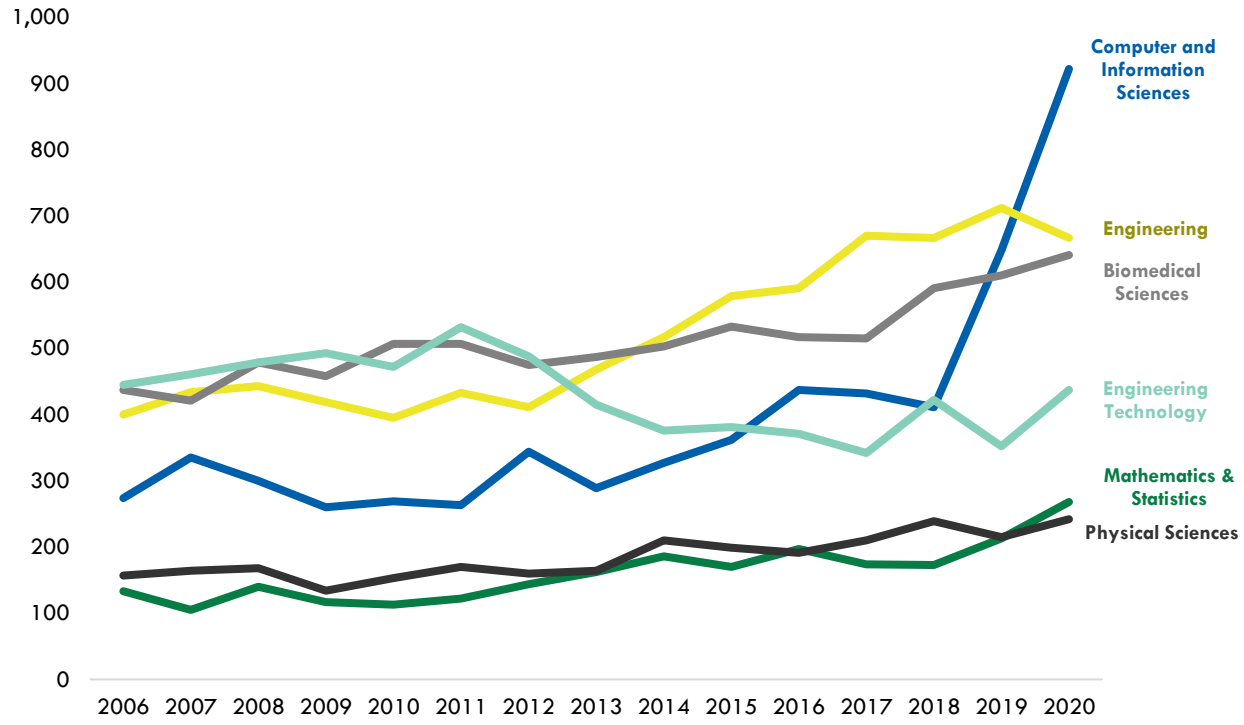
Top 5 Tech Occupations in Growth

Top Five in Net Job Growth		Top Five in Growth Percentage	
Project Management Specialists and Business Operations Specialists, All Other	590	Atmospheric and Space Scientists	192%
Management Analysts	520	Computer and Information Research Scientists	153%
Software Developers and Software Quality Assurance Analysts and Testers	369	Statistical Assistants	138%
Market Research Analysts and Marketing Specialists	355	Information Security Analysts	114%
Computer User Support Specialists	250	Nuclear Engineers	109%

Source: EL estimates based on EMSI 2022.1

Local education institutions have been training an increasing number of people in these fields.

Annual Education Completions in Lexington, KY Region for Selected Programs, 2006-2020

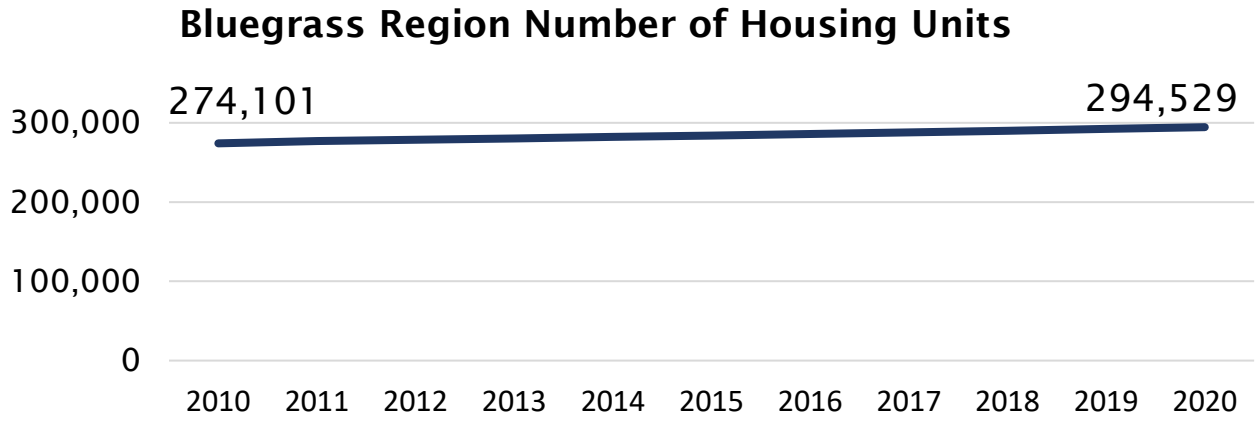


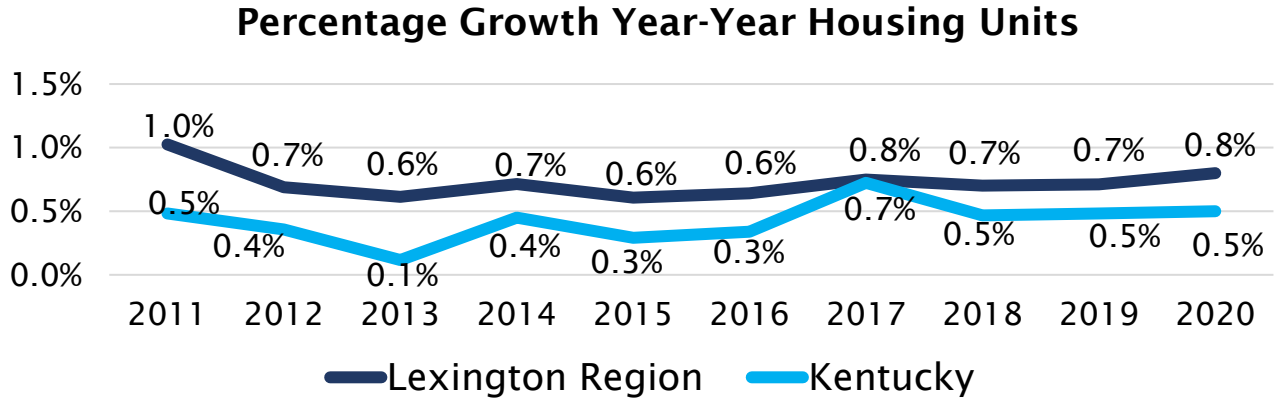
Source: EL estimates based on EMSI 2022.1

Housing Analysis

A key component of local quality of life is a region's housing variety and affordability. The pandemic has caused a surge in housing costs that accompanies the dearth of housing availability nationally. Many parts of Kentucky have felt these trends. More recently, the Federal Reserve has raised interest rates and housing markets have cooled considerably. The lasting impact on housing competitiveness in various regions is still in flux, but affordability is always important regionally and for potential investors.

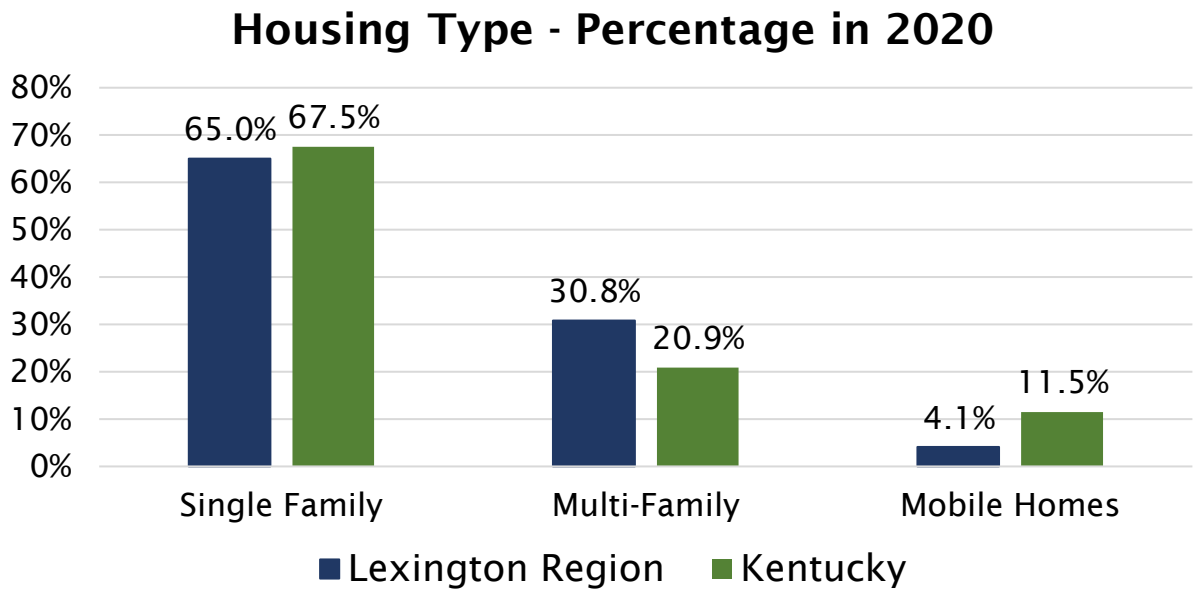
In 2020 the nine-county Bluegrass Region had 294,529 housing units, or about 14.8 percent of Kentucky's housing units according to the US Census American Community Housing Survey. The region's housing market grew over the past decade with a 7.5 percent increase in the number of units. During this ten-year period (since 2010) the United States had a 6.5 percent increase and the number of housing units in Kentucky grew by 4.3 percent. The region's housing growth has consistently been higher than Kentucky's.





Source: US Census

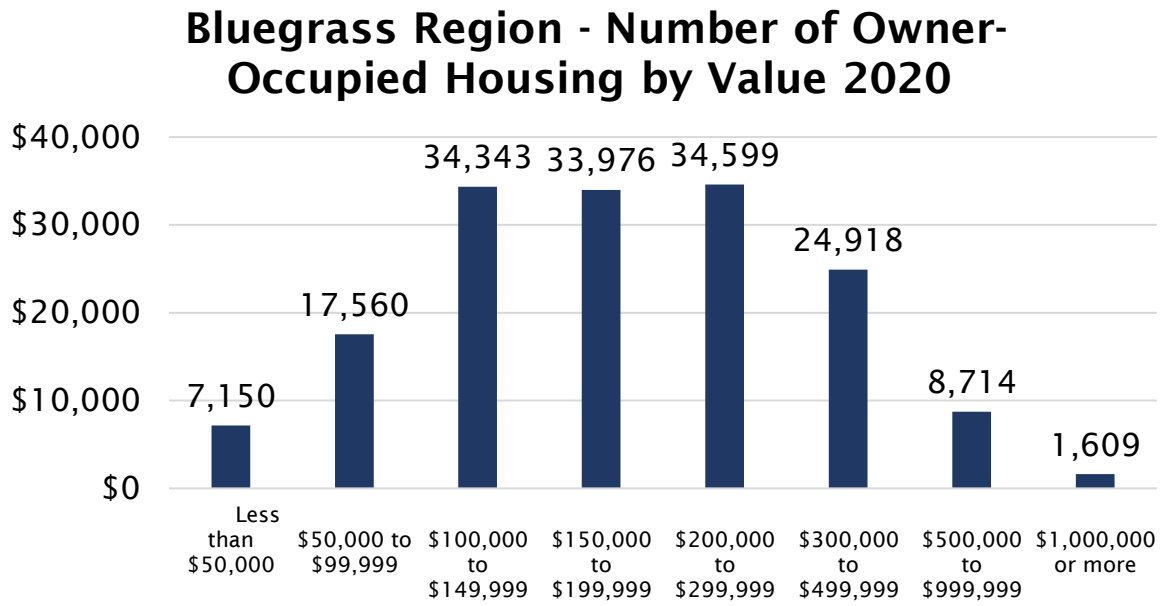
Most of the regional housing units are single-family detached, 65 percent in 2020. Over 30 percent of the region's housing stock is multi-family units and 4.1 percent is mobile homes. Almost 40 percent of the region's housing is rental, with a homeownership rate of 60.4 percent.



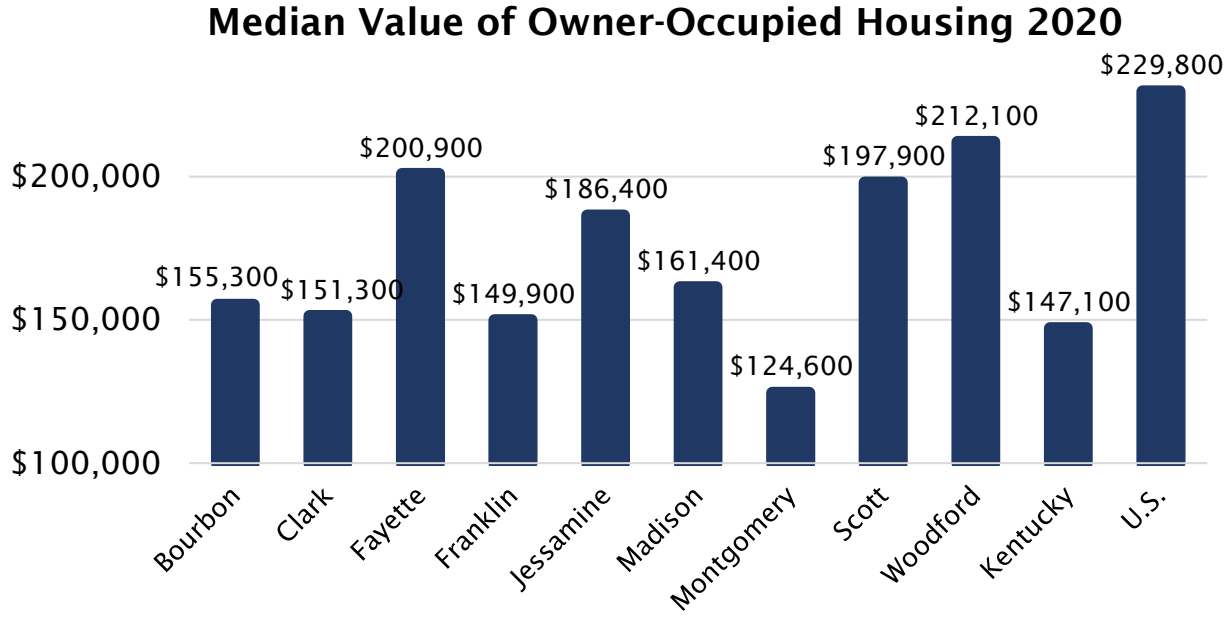
Source: US Census

To attract young professionals to the Bluegrass Region, there is a need for a varied housing mix including affordable rental housing. The region has a significantly higher percentage of rental housing, 39.6 percent, than the state with 32.4 percent. This is typical of areas with a large college student presence. The region's counties vary in the percent of rental housing from 27.7 percent in Scott County to 45.4 percent in Fayette County. The median rent in the counties varies from a low of $697 in Montgomery County to a high of $934 in Scott County. According to Census data, in total, 67.8 percent of rental housing in the combined region is priced under $1,000 per month.

The median value of Kentucky's owner-occupied housing was $147,100 in 2020, about 65 percent of United States owner-occupied value of $229,800. In the Bluegrass Region the median owner-occupied home value varied from a low of $124,600 in Montgomery County to a high of $212,100 in Woodford County. About 57 percent of owner-occupied homes in the region have values below $200,000. Just as the region's companies enjoy a regional labor shed with employees freely commuting across the region, the housing market is regional with a variety of options for homeowners and renters.

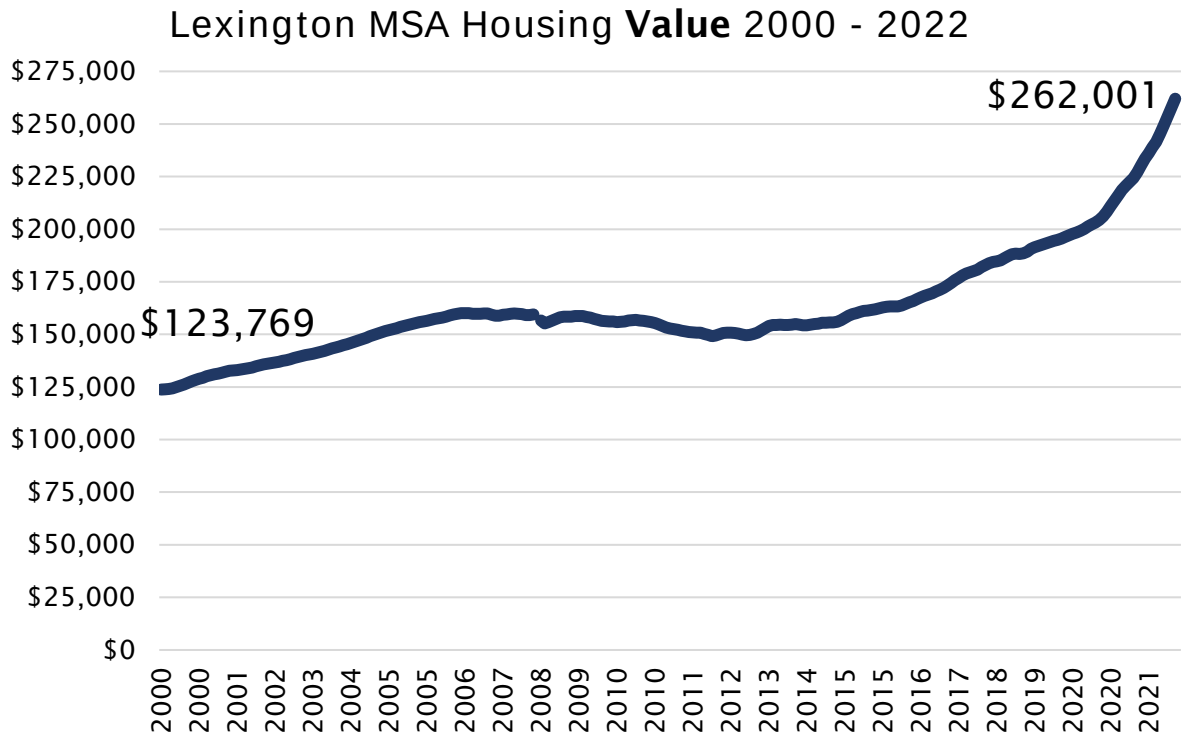


Source: US Census



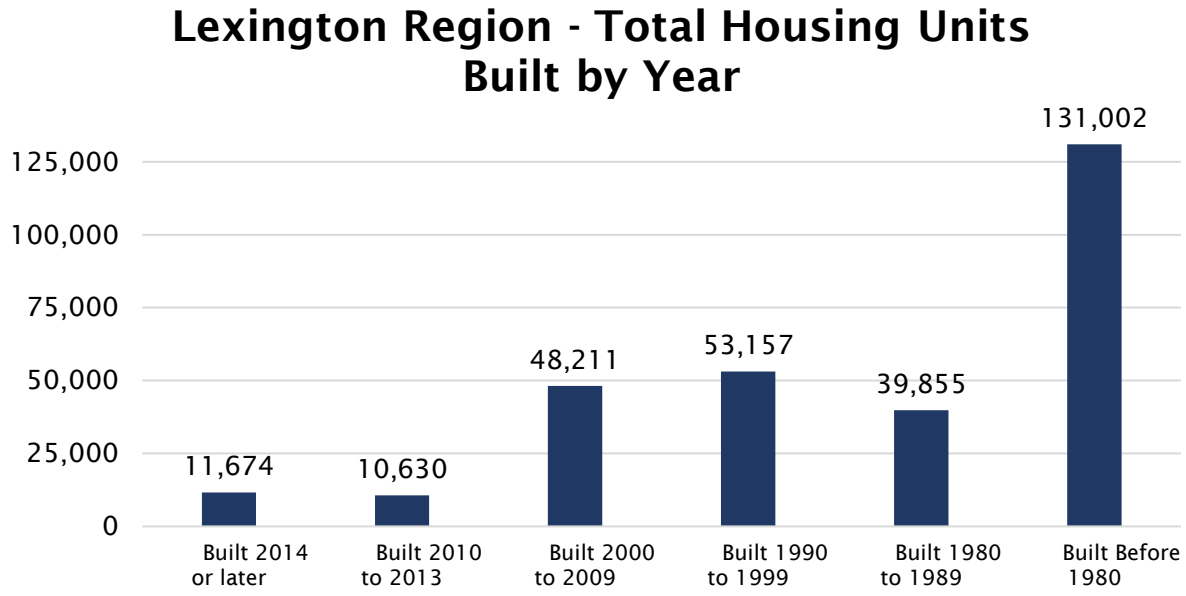
Source: US Census

Zillow Research provides data on housing values for MSAs. Lexington MSA home values have gone up 17.8 percent over the past year (April 2021- April 2022), and 30.9% over the past two years (April 2020 - April 2022). Nationally, home value growth was 20.9% over the past year and 35.3% over the past two years.



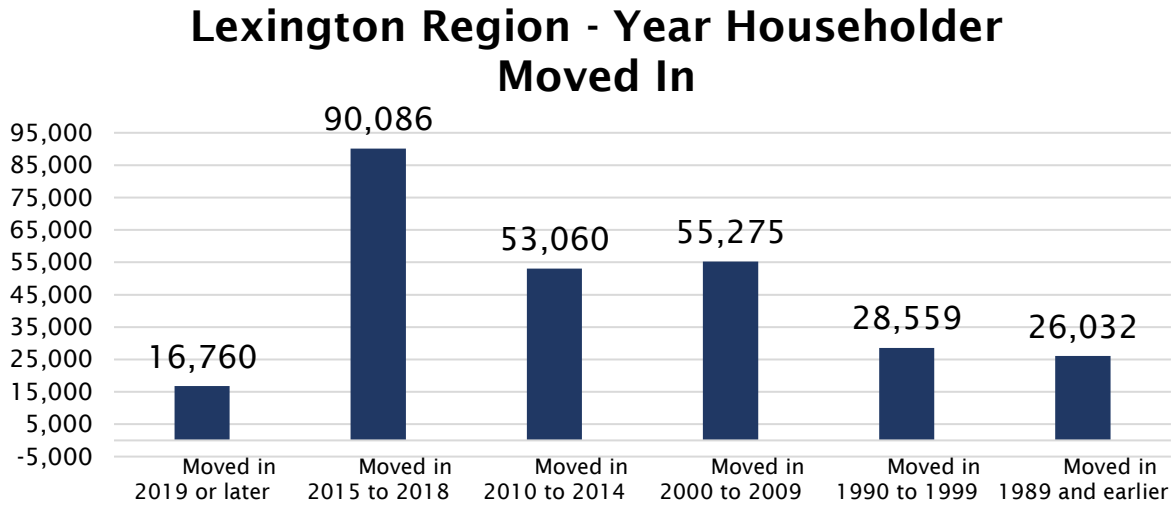
Source: Zillow Research

The region's housing stock is older, with 92.4 percent of occupied housing built before 2010. This is comparable with the state at 93.9 percent of occupied housing having been built before 2010.



Source: US Census

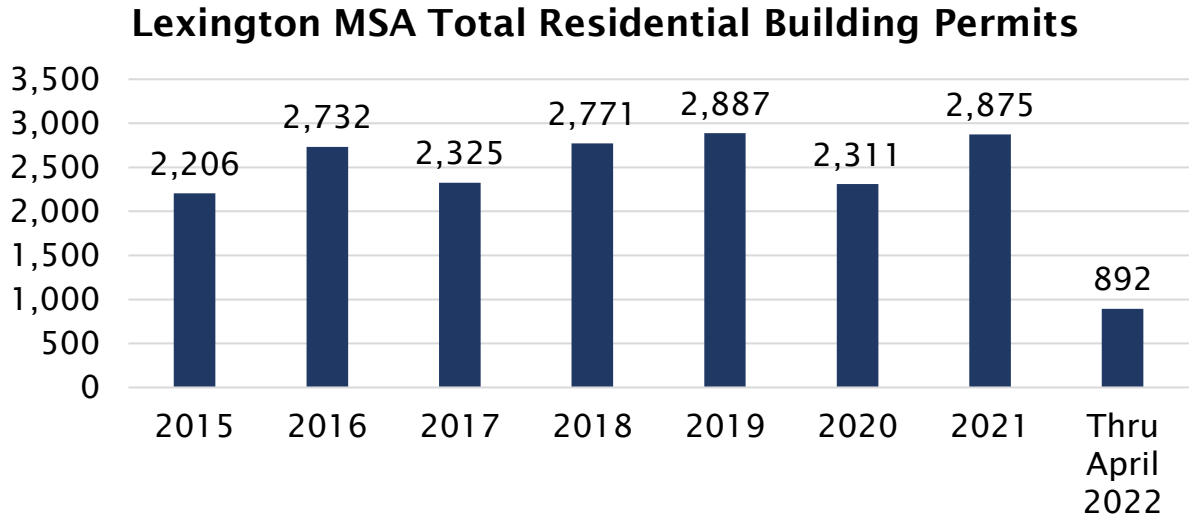
There was an influx of new households with over 40 percent of current households moving into their homes between 2000 and 2014. The trend continued more recently, with 39.6 percent of households having moved into their homes in the last five years.



Source: US Census

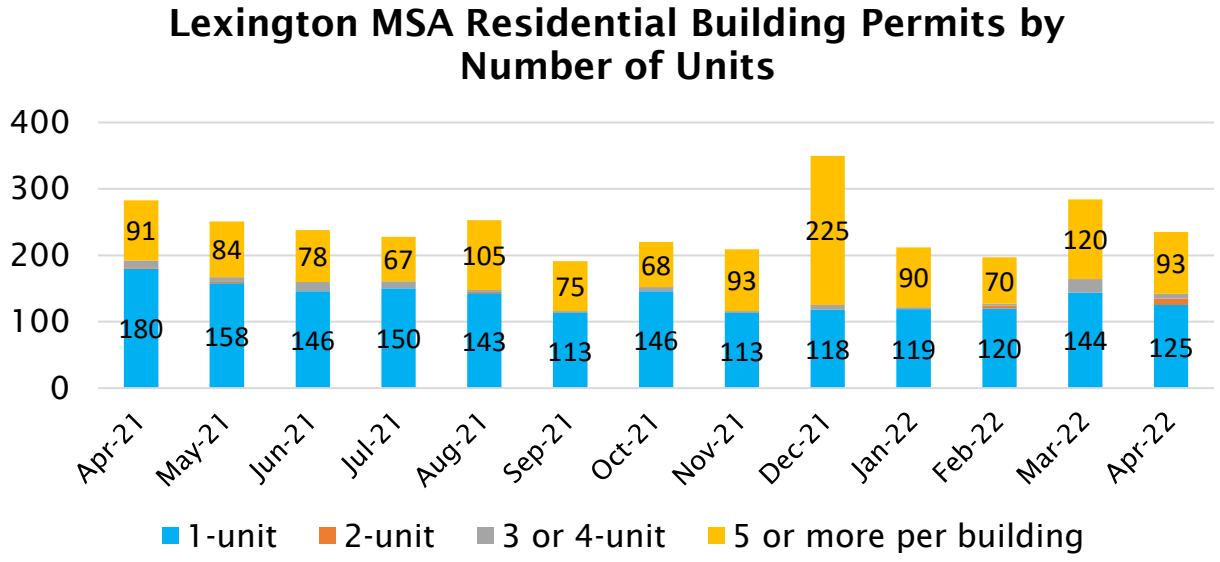
An indication of the Lexington region's tight housing market is the vacancy rate. The overall vacancy rate of housing units in 2020 was 8.4 percent, compared to 12.4 percent for Kentucky and 11.6 percent for the US.

The US Census provides building permit data on a monthly basis for MSAs. In the Lexington MSA, residential building slowed at the beginning of the pandemic, but returned to pre-pandemic levels in 2021.



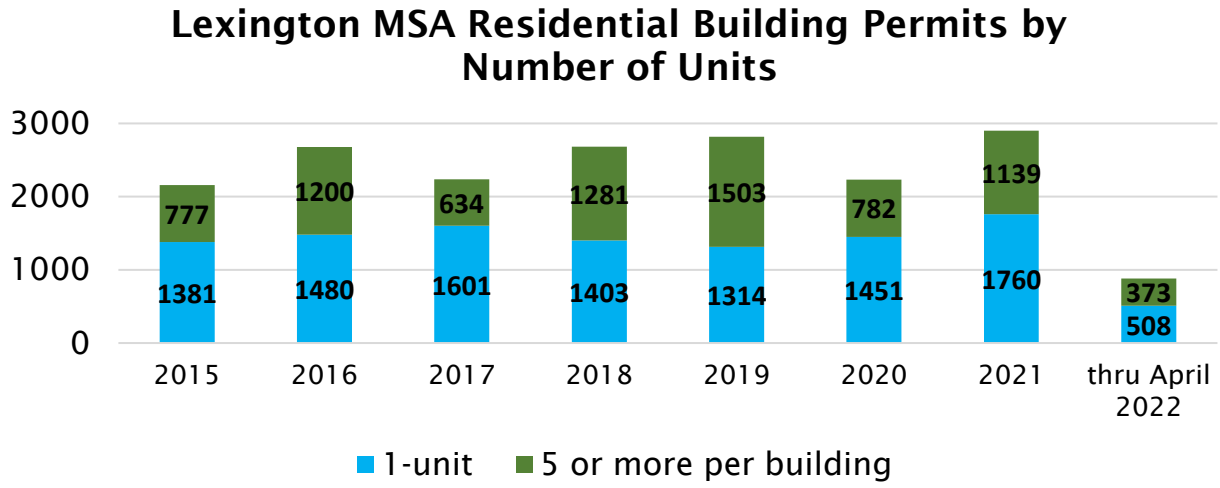
Source: US Census, Building Permits Survey

The breakdown of building permits for April 2021 to April 2022 shows that although 56 percent of the residential building permits are for one-unit detached houses, most of the remaining permits (40%) are for multi-family with five or more units in a building. This suggests a strong apartment market, further supported by HUD's rental housing vacancy rate for the fourth quarter of 2020 of 4.2 percent, and Rate.com's rental vacancy rate of 5.2 percent in April 2022.



Source: US Census, Building Permits Survey

Over the past five years, single-family building has remained stable while apartments with five or more units per building has fluctuated but shows strong growth.



Source: US Census, Building Permits Survey

Aspirations for the Region

An Overview of Existing Plans

Both Kentucky and the Lexington Region have produced many plans that address economic and workforce development and various aspects of growth. The counties and cities have comprehensive land use plans that guide and regulate growth locations and processes. Specific plans address recreation, homelessness, agriculture and many other specific public policy issues. The mission statement of Lexington's Division of Planning is reflected across many plans, a strategy "that will allow Lexington to grow and prosper while preserving, protecting, and enhancing existing neighborhoods, downtown and the rural Bluegrass cultural landscape."

In a rapidly changing, highly disruptive and competitive market, balancing growth and prosperity with preservation of community character is the challenge many regions face. The needs of low-income citizens seeking better paying jobs, agricultural interests wanting to preserve rural beauty and prosperity, and new companies looking for a friendly business climate, great infrastructure, affordability, and bountiful talent are often in conflict.

Open markets create conundrums that require choices. Restricting the supply of housing in attractive communities makes it less affordable. Limiting manufacturing options near the center of the region encourages companies to locate in less accessible places, denying easy access to urban workers, and redistributing tax revenue. Rural land without utilities is not very competitive

and neither are citizens lacking in-demand skills. Good local plans acknowledge these tradeoffs and make informed choices.

Other organizations have created plans for Kentucky that will have impacts on the Commerce Lexington region. The Kentucky Chamber's new report, "*20 Years in the Making: Kentucky's Workforce Crisis*," details the Commonwealth's long and short-term workforce struggles, and stresses the urgency of building a quality workforce to drive a strong economy. The report shows that Kentucky's economic future depends closely on whether or not policymakers take the actions to solve the Commonwealth's long-term workforce challenges and address the basic issues with the resolve they require.

Some of the highlights of the report include:

- The percentage of Kentucky adults working or actively looking for work has been trending downward since 2000 and has remained consistently below national averages and neighboring states, both before and after the pandemic.
- The causes of Kentucky's weak workforce participation rate are many and include demographic change, poor health outcomes, substance abuse, incarceration, and more.
- Policymakers must pursue multiple and bold solutions to build a better workforce and, in turn, a stronger Kentucky economy.

The Work Ready Kentucky Plan also addresses the workforce issue with recommendations on education and organizational alignment.

Many of the existing plans for the Bluegrass Region express a desire to grow the economy, maintain adequate infrastructure, attract and create more and better jobs, educate and train the future workforce and maintain the quality of life that citizens enjoy.

Stakeholder Input

Key regional stakeholders describe the Bluegrass Region as a smaller town with a big city feel that is beautiful, hospitable and affords its residents a very high quality of life. There is consensus that the region's strengths are concentrated in the areas of infrastructure, affordability, and quality of life.

Specifically, the stakeholders felt marketable assets were as follows:

- Access to healthcare
- Quality of life amenities
- Low crime rate
- Ratings of public schools
- Energy availability & cost
- Highway accessibility
- Labor costs

The areas identified as needing improvement to be more competitive focused on the availability of labor, real estate product, and the regulatory and approval process. **These are the foundation for the recommendations in this report.**

- Availability of skilled labor
- Shovel-ready land and available buildings
- Housing availability and affordability
- State & local regulations and development costs

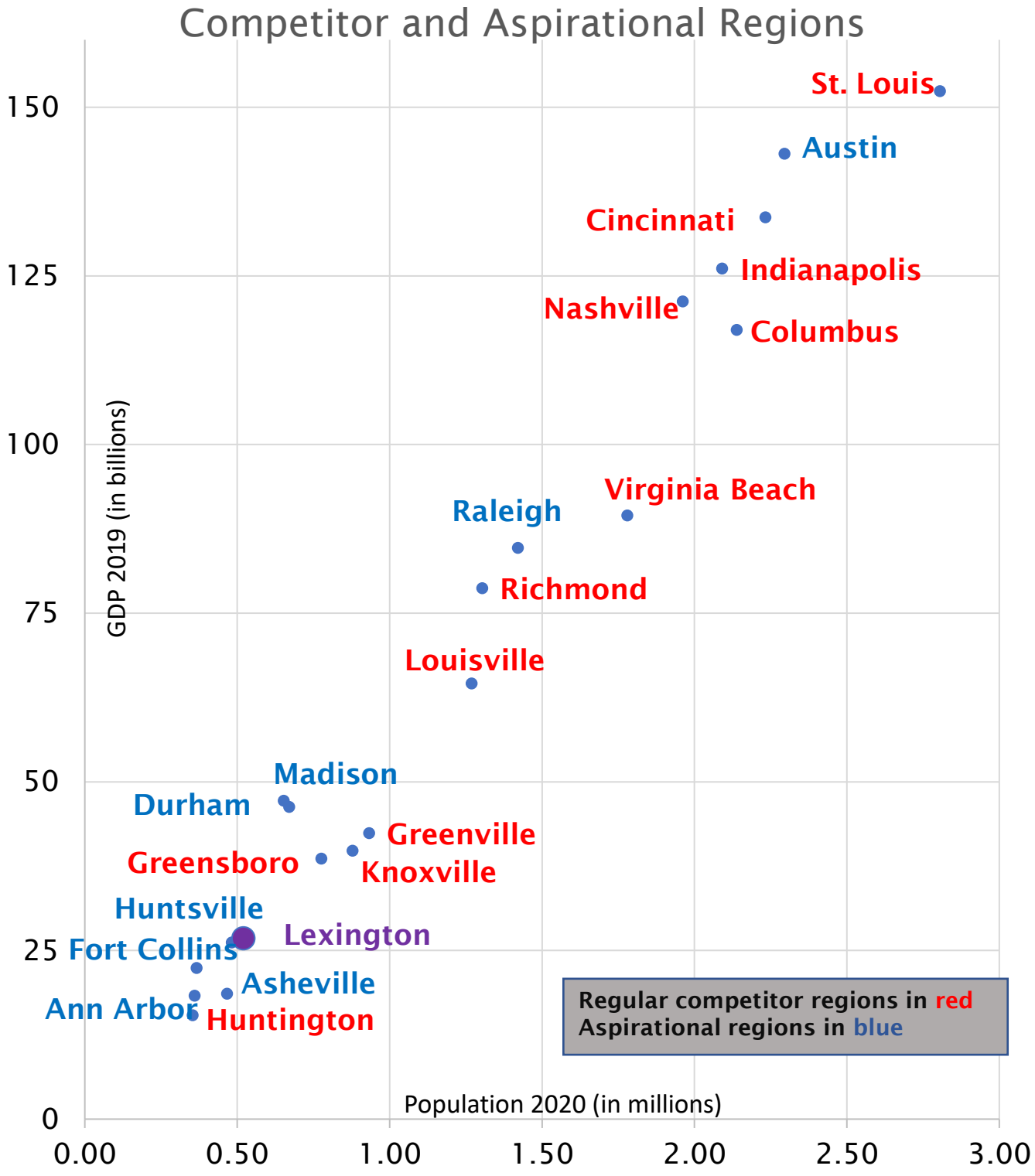
Stakeholders agreed that many efforts were already happening at the regional and local levels and that new efforts should be limited to a few achievable actions focused on improving the region's overall competitiveness.

Current and Aspirational Regional Competitors

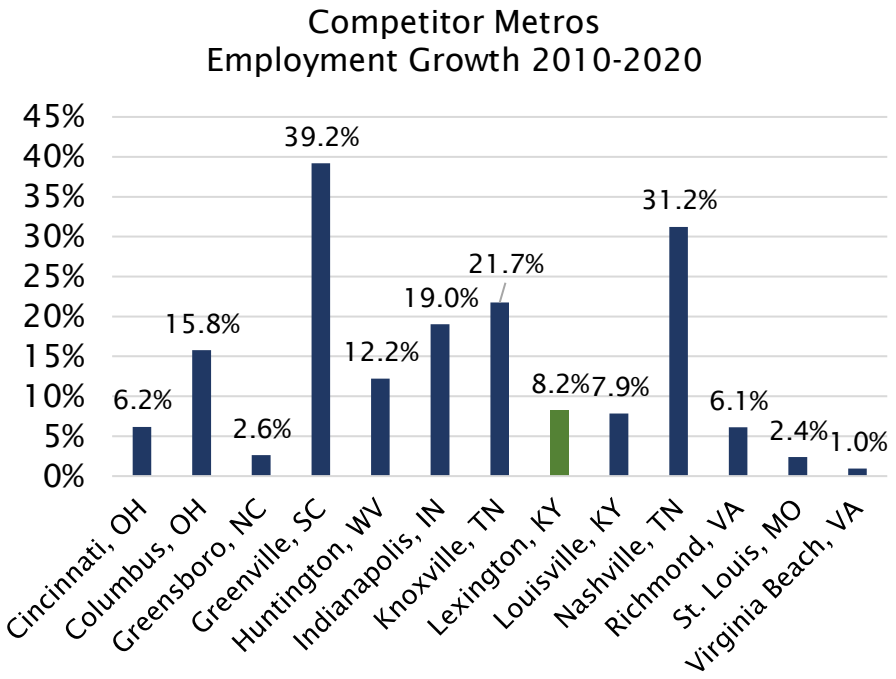
The region is in constant competition for jobs, talent and investment. The stakeholder leadership group identified 12 regions that they felt the Bluegrass Region currently competed with and also eight additional regions that they aspired to compete successfully against in the future. Improving the region's relative competitiveness is the goal.

Current Competitor Regions	Aspirational Regions
Cincinnati	Ann Arbor
Columbus	Asheville
Greensboro	Austin
Greenville	Durham
Huntington	Fort Collins
Indianapolis	Huntsville
Knoxville	Madison
Louisville	Raleigh
Nashville	
Richmond	
St Louis	
Virginia Beach	

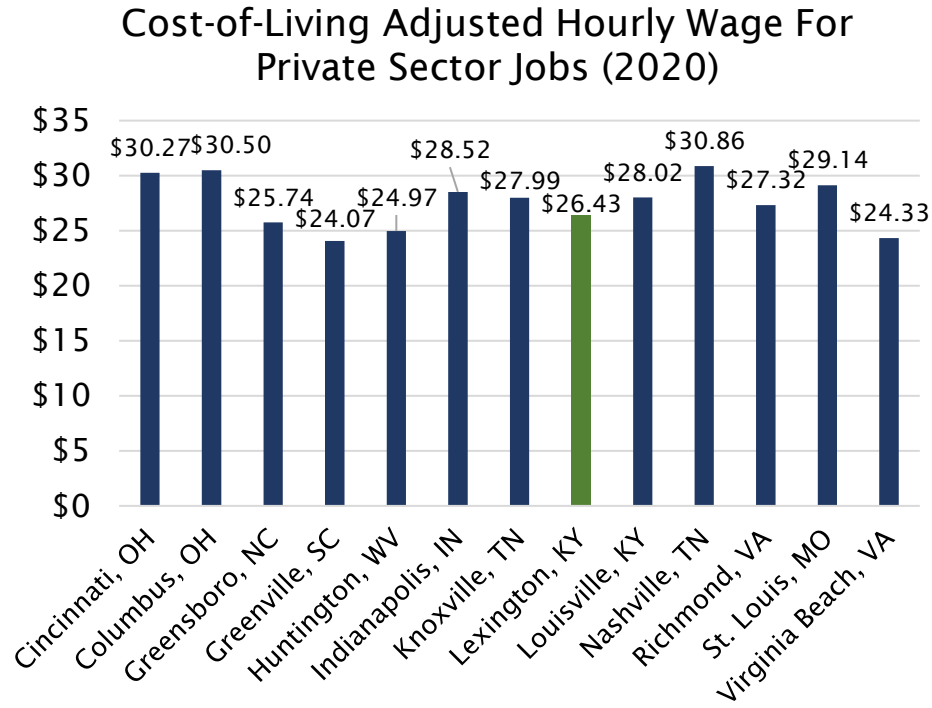
As the chart below shows, many of the regions that the Bluegrass Region routinely competes with for economic development investment are significantly larger both in population and the size of the economy. While there are advantages to a smaller region, often the region can be overlooked when site selectors and investors limit their initial searches to the top 100 metros or use another metric for which a smaller size is a disadvantage.

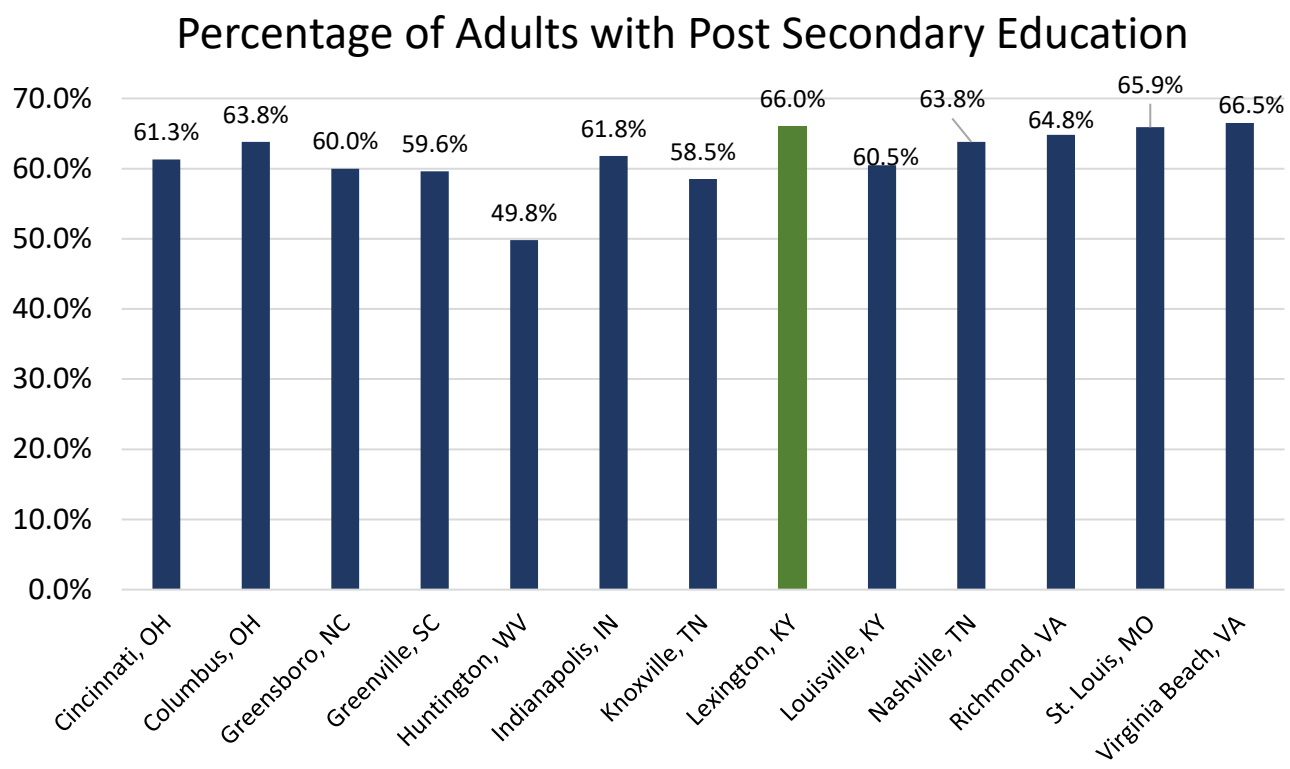

Competitor and Aspirational Regions
GDP 2019 (in billions)
Population 2020 (in millions)
0
25
50
75
100
125
150
0.00
0.50
1.00
1.50
2.00
2.50
3.00
St. Louis
Austin
Cincinnati
Indianapolis
Nashville
Columbus
Virginia Beach
Raleigh
Richmond
Louisville
Madison
Durham
Greenville
Greensboro
Knoxville
Huntsville
Lexington
Fort Collins
Asheville
Ann Arbor
Huntington
Regular competitor regions in red
Aspirational regions in blue

When compared to the 12 current competitor regions, the Lexington region's metrics typically fall in the middle. Employment growth over the past 10 years was at a faster pace than Cincinnati, Greensboro, or Richmond VA, but well behind Nashville, Knoxville, Indianapolis, or Greenville SC.



The region's hourly wages, adjusted for the cost of living, were again in the middle – slightly ahead of Greenville, Huntington, and Virginia Beach. Local wages trailed Columbus, Nashville, St Louis and Louisville.





Educational attainment is not the reason for the lower wages. The Lexington region leads all competitor regions except Virginia Beach in the percentage of adults with post-secondary education.

Economic Leadership has developed a proprietary multifactor analysis to help regions compare their competitiveness against other regions. Five individual indices have been created that measures different things that are important to potential economic development investors, plus an aggregate index of all five.

- **Momentum Index** - What is the metro's economic inertia, measuring gains in population, jobs, wages, GDP, productivity, advanced industry jobs and recent investments in talent?
- **Future Index** - What can you expect in the next decade? What are the economic projections, dependency ratios, how is the infrastructure, what does the talent pipeline look like and is there job growth in growing industries?
- **Quality of Place Index** - Affordability, convenience, inclusion, proximity to parks, safety, health accessibility.

.

- **Talent** - Measures of labor growth, labor force participation, educational attainment, cost of living, investments in education.
- **Cost & Climate** - Measures of business costs, taxation, regulation, legal environment, building energy and occupancy costs and crime.
- **Overall** - Composite of the five indices.

When compared against the other metros, Lexington scores in the middle. The region performs best in the quality of place and cost and business climate indices, less well in the talent index and worse in the economic momentum and future indices.

COMPETITOR METROS

MSA	Momentum Index	Cost and Business Climate Index	Future Index	Talent Index	Quality of Place	Total Score	Overall Rank
Nashville, TN	1	1T	1	1	1	5	1
Knoxville, TN	3	1T	3	3T	5T	15	2
Indianapolis, IN	2	4T	2	6	8T	22	3
Cincinnati, OH	5	8	5T	5	3T	26	4
Columbus, OH	7	9T	7	2	3T	28	5
Richmond, VA	4	7	8	3T	8T	30	6
Greenville, SC	6	9T	4	7T	5T	31	7
Lexington, KY	**11T**	**6**	**9**	**7T**	**2**	**35**	**8**
Louisville, KY	9	3	5T	9	10T	36	9
Greensboro, NC	10	4T	10	11T	7	42	10
Virginia Beach, VA	8	9T	12	11T	10T	50	11
St. Louis, MO	11T	13	11	10	12T	57	12
Huntington, WV	13	12	13	13	12T	63	13

When compared against aspirational metros Lexington is in the middle for Business Cost and Climate but trails all metros in the other categories.

ASPIRATIONAL METROS							
MSA	Momentum Index	Cost and Business Climate Index	Future Index	Talent Index	Quality of Place	Total Score	Overall Rank
Raleigh, NC	2T	1	1	1	1	6	1
Austin, TX	1	6	2	2	2	13	2
Durham, NC	4	2	4	7	4T	21	3
Huntsville, AL	5	7	3	3T	4T	22	4
Fort Collins, CO	2T	9	6T	3T	3	23	5
Madison, WI	6	4	5	6	7T	28	6
Asheville, NC	7	3	8	5	7T	30	7
Ann Arbor, MI	8	8	6T	8	6	36	8
Lexington, KY	**9**	**5**	**9**	**9**	**9**	**41**	**9**

Positioning the Commerce Lexington Region for Future Growth - Post Pandemic Global Trends

Economic Impacts	Remote Working & Real Estate Impacts	Economic Development Impacts	Higher Education Impacts	Personal Impacts

Critical to strategic planning efforts is awareness of the trends impacting the regional and national economies, the ability to anticipate change and adjust accordingly. As hockey great Wayne Gretzky's famous quote says, success is "skating to where the puck will be." The COVID-induced shutdown harmed the US economy and accelerated many social and technological trends. While COVID-19 does not appear to be going away, the US is moving into an endemic phase, where there will be continued surges of coronavirus variants, but where the health impacts will be increasingly muted. The residue or ripples from the pandemic will continue for years. Remote work, e-healthcare, reshoring, and reassessing personal values will continue to impact business and our lives.

Economic Impacts

The pandemic-induced shutdown was the sharpest shock to the economy in American history, certainly the most impactful since the Great Depression. In one month during the spring of 2020, the US lost 16 million jobs, equal to more than six years of pre-pandemic job growth. Predictions about the short-term and long-term impacts on America's economy and society came quickly, and their accuracy has varied widely. There is no doubt that the pandemic accelerated several trends that were already emerging in the last decade, such as the growing importance of e-commerce and the desire for remote work options. Many aspects of our economy, such as overall employment, have

rebounded more quickly than originally forecast. Others – such as the trend of "reshoring" manufacturing in the United States – appear to be on track but will take longer to fully evaluate.

Employment

As of May 2022, the nation had recovered 96 percent of the 22 million jobs lost at the height of the pandemic shutdown. Employment in the US recently increased by at least 390,000 jobs for the 13th month in the row; at that rate the country will be back to pre-COVID job levels by mid-summer.

However, the jobs recovery is very uneven across the 50 states. As of April 2022, 13 states had erased all their job losses. States in the South and the Rocky Mountains have fared the best, while many in the Northeast and Midwest are still struggling. Jobs in Kentucky remain slightly below their pre-pandemic level. For the nine counties of the Bluegrass Region, the total number of jobs in February 2020 was 346,259. This fell during the early months of the pandemic to under 300,000 and by December 2021 had fully recovered to 347,428.

Labor Force Participation:

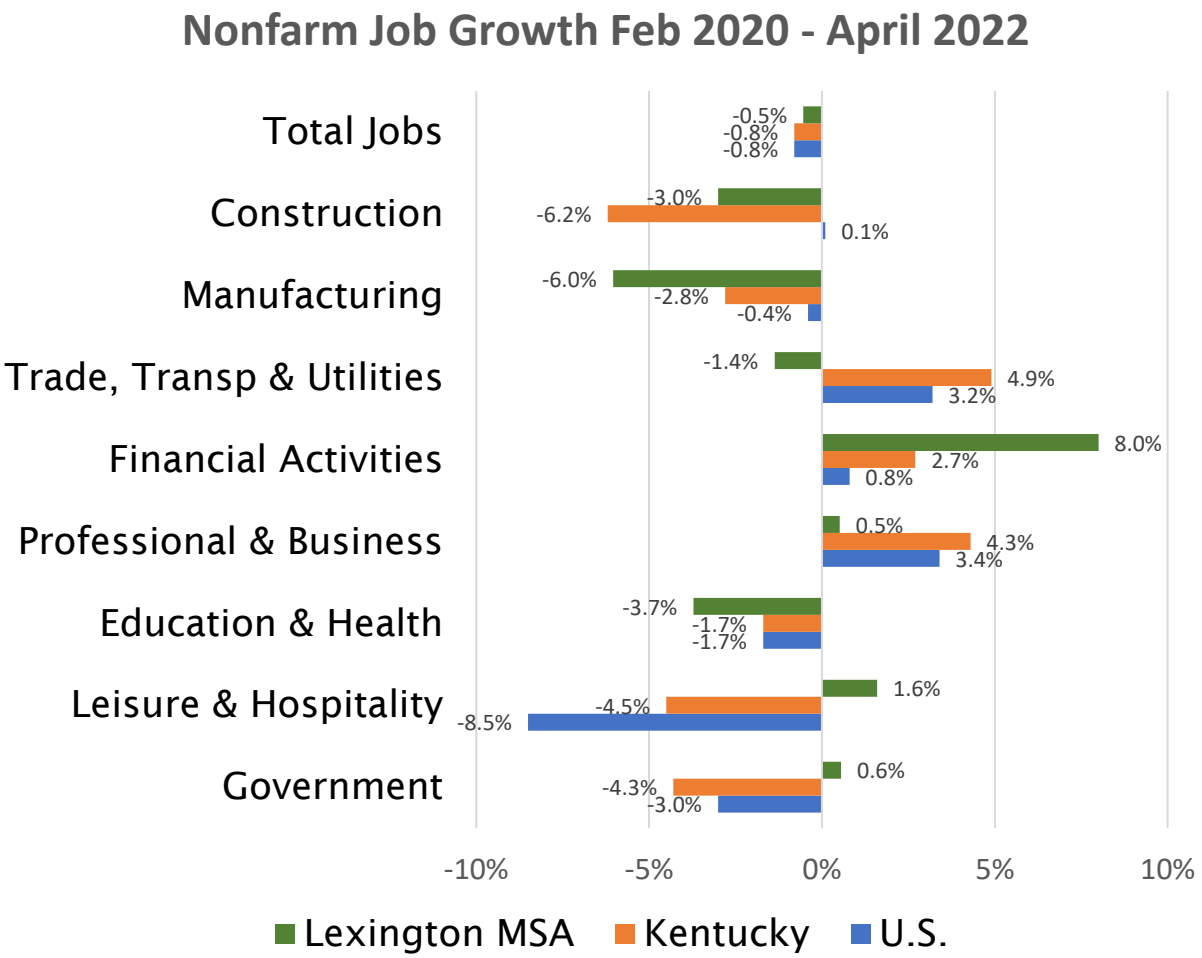
The US labor force participation rate fell from 63.4 percent in February 2020 to 60.2 percent in April 2020. (For comparison, the rate was over 67 percent 20 years earlier.) In one year, a net 4,160,000 adults left the labor force. The rate has recovered slowly, edging up to 62.4 percent by March 2022. Some researchers suggest that "the pandemic has permanently reduced participation" and that current participation rates could "reflect a new normal." Retirements among those 55 and over are seen as a major cause of lower labor force participation.

Another key workforce group is women, whose participation rate of 57 percent in January 2021 was the lowest in 33 years. The need to care for children and elderly parents has been cited as a primary factor. To promote labor force participation among women, researchers such as the Kauffman Foundation recommend a) expanded public preschool and private childcare support; b) more flexible work schedules; c) expanded parental and family leave policies; and d) better employee benefit packages.

This appears to be a clear example of a COVID-induced acceleration of an existing long-term trend – lower labor force participation. If the US economy continues to recover and generate demand for workers, reduced participation is likely to restrict the ability of companies to expand. Low participation rates have been a persistent problem in Kentucky and enticing more adults into the labor force is a priority in all recent workforce reports. **In the Bluegrass Region, pre-pandemic labor force participation rate was 65.4 percent but currently hovers around 64 percent.** These participation trends – in conjunction with the continued decline in fertility rates – will solidify the ability to attract and retain talent as a key differentiator for regional success.

Employment Trends by Sector:

As of March 2022, total non-farm employment in America was one percent lower than in February 2020 before the COVID-induced economic shutdown began. However, employment trends over the last two years vary tremendously between sectors and by location. The Bluegrass Region has experienced strong growth in the financial services industry and has fared better than the nation or state in leisure and hospitality.



Wages:
The Atlanta Fed's Wage Growth Tracker shows that wages have spiked since May 2021. In March 2022 the median wage in America rose by 6.0 percent year-over-year, the highest increase in the series' history going back to 1997. Wage growth rose slowly and steadily since May 2010 (during the Great Recession) until it surged at a much faster rate beginning last year. Recent record inflation, along with the high demand for workers is contributing to wage growth, but new research has shown that most, if not all wage gains have been offset by inflation and no real gains have been realized.

Annual average earnings per jobs in the Bluegrass Region was $58,159 for 2019 and $64,609 in 2021. When adjusted for inflation, the 2019 average wage would have buying power of $64,418 in 2021.

Business Adoption of Automation and Potential Job Displacement:
The pandemic's impacts on the workplace may have caused businesses to fast-forward "10 years of change in the space of less than 10 months," in terms of adopting automation, robotics, and artificial intelligence. **An estimated 40**

percent of workers could require re-skilling, and many might need to work in a completely different industry due to long-term structural changes in employment needs.

In the past, automation often generated as many or more jobs as it displaced over the long term. A 2022 Brookings article claims that the latest round of automation "has the potential to cause much more worker displacement and inequality than older generations of automation." Still, the jury is out; as Brookings asks, "Is this time really different?" In the region, manufacturing jobs will almost certainly be impacted and the ability of the region's employers to easily retool their facilities and retrain their workers will determine whether they will invest where they are or look elsewhere for future growth.

Worker Relocation:
Economic development consultant DCI's fall 2021 *Talent Wars* survey of over 1,000 workers who had relocated during the pandemic uncovered these interesting trends:

- Most adults who relocated did so within the same region of the U.S.; DCI concludes that "cities should ensure their talent attraction efforts include talent within a 100-mile radius."
- The primary triggers that caused people to move:
  Better quality of life 38%
  Closer to family 30%
  Larger living space 27%
  Lower overall cost of living 23%
  "Loss of job" was only cited by 13 percent.
- "Money Prevails:" 90 percent of respondents said their new job offered a higher salary.
- The top two factors for considering a new job opportunity: salary and work-life balance.
- The top factors influencing relocation decisions:
  Housing cost 7.3
  Cost of living 7.3

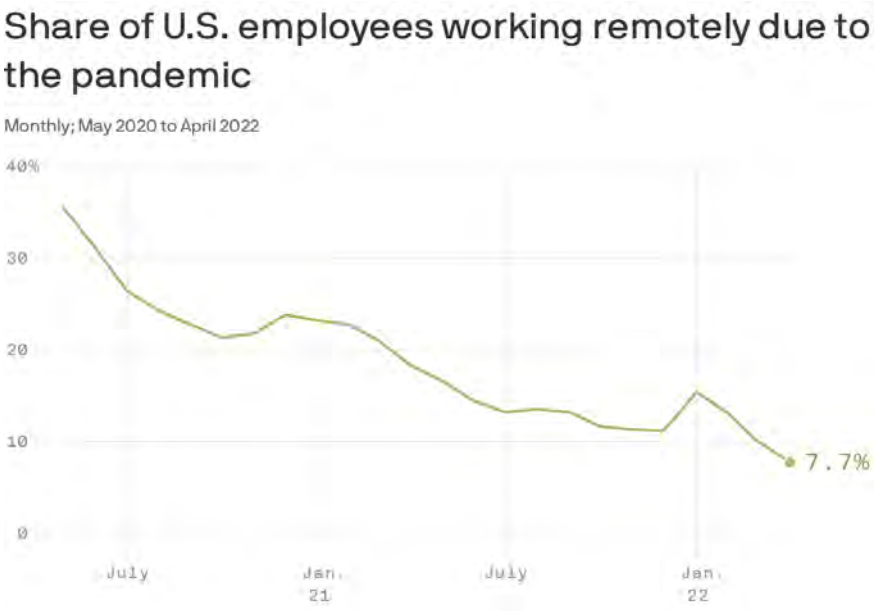
Housing availability 7.1
Safety / crime rates 7.1
Welcoming / friendly 7.0
Quality healthcare 7.0

- After basic criteria were met (job, housing, cost of living, etc.), the top three lifestyle factors impacting location decisions were 1) Schools; 2) Outdoor Recreation; 3) Safety & Security.

Talent attraction will be a recommendation later in the report. Based on the national trends the effort should focus on nearby states and emphasize regional affordability, job opportunities, and the work-life balance prized in the Bluegrass region.

Remote Working & Real Estate Impacts

Since the economic shutdown began in March 2020, most company executives have said that the shift to remote work has been a success. Firms are open to a hybrid model for office work, though they feel it is important for company culture to have employees come into the office a few days a week. This creates some tension, with workers expressing a desire for work-from-home status more often or even full-time. Due to the tight labor markets, companies appear to be bending to accommodate their office staffs. According to



Buffer.com, here's how firms have changed their stance in the last two years:

Is your company planning on permanently allowing some amount of remote work?

	2022	2021
YES	72%	46%
NO	9%	16%
UNSURE	19%	38%

Other observers expect that the hybrid model, with fewer workers coming into the office for a full work week, could have significant negative impacts on restaurants and retail stores located near office buildings.

Recent studies (the chart is from Axios Closer) have shown that full-time remote work may not be as widespread as some predicted.

Commercial Real Estate:
Not surprisingly, the lodging sector was hit the hardest during the pandemic. However, it has recovered substantially. By December 2021, hotel occupancy was at 57 percent, up from 42 percent a year earlier. As of March 2022, the mortgage loan delinquency rate for hotel properties was 6.9 percent. One year earlier, the delinquency rate was 16.0 percent.

As of early 2022, various estimates put the office vacancy rate between 14 and 18 percent – relatively high but still less than the peak during the Great Recession. Vacancies were exacerbated by new office buildings being completed. Given caution about work-from-home trends, future new construction will likely be muted, helping to reduce vacancy. As of March 2022, the office mortgage delinquency rate was just 1.7 percent, although there were a few troubling signs in major office markets on the coasts and in Chicago.

Conditions across the United States vary greatly. Consulting firm PwC believes that office properties will experience "vastly different outcomes" based on location and amenities. These major coastal "gateway" markets experienced vacancy increases of three percent or more during 2021: San Francisco, Seattle, New York, Los Angeles, and San Jose. Meanwhile, from late 2020 to late 2021 the five markets with the greatest positive absorption of office space were Palm Beach, FL; Durham, NC; Austin, TX; Boise, ID; and Pensacola, FL. Sunbelt and Rocky Mountain markets continue to outperform traditional office powerhouse metros.

The 10-year projection is still for greater global demand for office space, because of the economy's long-term structural move to a "professional services-oriented economy." Cushman & Wakefield describes this as a 50-year trend helping office properties. However, a safe expectation is that speculative office construction will be limited in the near term.

The industrial real estate market boomed during the pandemic, driven by tremendous e-commerce demand for warehouse and logistics space. By the end of 2021, a net 700 million square feet of industrial space had been absorbed, rents were growing by 8.4 percent annually, and vacancy was at a record-low 4.1 percent. The National Association of REALTORS predicts vacancy to rise slightly – to 5.0 percent – during 2022, due to high levels of new construction.

The warehouse and logistics market should continue to be extremely healthy. From 2016 to 2019, warehouse and logistics space accounted for 28 percent of all industrial space demand. In 2020 and 2021 it accounted for 40 percent of the total. Site Selection tracked 1,670 new logistics construction projects in 2021.

Increased reshoring of manufacturing operations, or "near-shoring" to countries close to the US, is an emerging trend. Supply chain disruptions during COVID accelerated companies' reevaluation of reliance on China that was already underway due to decreasing cost advantages there. Observers expect that supply chains will be "significantly reshaped," especially in medical equipment, medical supplies, pharmaceuticals, and consumer products.

In a 2020 survey, 73 percent of firms contemplated major shifts in supply chain and procurement strategy, including reduced supply chain globalization. In another survey, 64 percent of North American manufacturing and industrial companies were "likely to bring manufacturing production and sourcing back to North America." This trend has continued. In a late 2021 survey of site selection consultants, 71 percent said that their clients are considering more reshoring

projects. Reshaping of supply chains is a slow process, and it may be several years before the full impact on US manufacturing is felt. But economic development efforts to identify and target anchor company supply chains will likely yield dividends.

Retail vacancies rose during 2020, with vacancy at its highest since 2013. Greater retail pain was expected in 2021, but this did not materialize. At the end of 2021, Moody's Analytics REIS reported that the predicted retail apocalypse "has been canceled." Vacancy was just above the long-term average of about 10 percent. REIS noted that drop in space demand was not nearly as bad as during the Great Recession, while the very low amount of new retail construction "undoubtedly helped prop up performance of existing properties." Moody's forecast that "after a bumpy next year or two for retail, we expect the national vacancy rate for the sector to trend back down toward a sub-10 percent level." Retail market conditions vary across the country.

There are currently several hundred nonresidential building and site listings for rent or sale in Lexington according to on-line commercial listings. The Bluegrass Alliance web page has 108 available buildings and 50 sites on their 9-county inventory. 2022 is a time where most economic development organization has heavy interest in their available product.

Housing:

The pandemic generated an unexpected surge in demand for housing. Stimulus payments and a rising stock market likely contributed to this boom. Single-family housing starts roared back since tanking in April 2020, rising from 938,000 to 1,770,000 in February 2022 (on an annualized basis). Builders are still having difficulty meeting the demand. Supply-side constraints include a) construction costs, b) material shortages and delays, c) labor shortages, d) lack of available lots, exacerbated by local zoning restrictions and NIMBY political clout. On the demand side, Millennials are hitting their prime home buying

years, now making up 43 percent of buyers. Gen Z buyers are entering the market, and both groups will spur home demand over the next decade.

The supply-demand imbalance is severely impacting housing availability and affordability. Home affordability nationwide fell by 11.5 percent from August 2020 to August 2021, while the median home price grew by 21.1 percent. Eight of the 10 least affordable markets were in California; however, affordability has been reduced in almost all markets, including Lexington. The *Emerging Trends in Real Estate 2022* report lists housing costs and availability as the nation's #2 social and political issue (behind only the COVID-19 pandemic.)

Although it has been widely reported that the pandemic increased interest in smaller and lower-density areas, many recent location decisions appear to be driven by affordability – especially reduced demand in high-cost coastal housing markets. Suburban locations are more popular, with many movers relocating to the edges of the same metro area in which they already lived. Housing location decisions will likely be influenced by remote working and will continue to shift – perhaps in favor of more affordable places, those offering an appealing quality of life, and good work-life balance.

Spring 2022 interest rate increases have rapidly decreased housing demand and put the brakes on the housing surge. Expectations are that interest rates will stay high until inflation is brought down and that housing sales will drop.

After a shaky year in 2020, multi-family housing experienced an impressive rebound in 2021. The National Association of REALTORS reported that there was strong absorption of apartment units, with vacancy falling to 4.5 percent by the end of 2021 and rents increasing by 11 percent year-over-year. Real estate firm CBRE sees downtown apartments "filling back up" with occupancy rates nearing pre-pandemic levels, while suburban occupancy is steady. CBRE estimates that 300,000 new multi-family units will be delivered in 2022, above the annual average of the last three decades. The rise in single-family home rentals could be a new area of competition for the apartment market.

The Lexington market can expect continued interest in multifamily construction and will also likely experience neighborhood home purchases that will be converted to rental properties.

Economic Development & Site Selection Impacts

American company executives – primarily in the manufacturing and warehouse/ distribution sectors – were interviewed by Area Development in late 2021 about their facility expansion plans and site location factors. Seventy-seven percent of respondents said that their company plans to open a new (not relocated) facility in the U.S. within the next two years. They ranked these as their most important factors in making location decisions:

Labor costs	96.4 %
Availability of skilled labor	94.9 %
Energy availability and costs	94.7 %
Shipping costs	93.2 %
Highway accessibility	93.1 %

Area Development also released its annual survey of US site selection consultants in the first quarter of 2022. Consultants cited these location factors as the most critical ones for industrial project location decisions. The rising importance of proximity to markets illustrates the concentration on e-commerce, warehouse and distribution projects.

Proximity to major markets	98.3 %
Availability of skilled labor	98.2 %
Highway accessibility	94.8 %
Proximity to suppliers	93.0 %
State and local incentives	93.0 %
Available land	93.0 %
Energy availability and costs	91.2 %

State and local incentives, as well as tax exemptions, were ranked significantly higher by consultants than by corporate executives.

Another survey of national site selection consulting firms in November 2021 suggested these themes for 2022 –

1. Distribution and logistics projects will again dominate the headlines in 2022.
2. Sunbelt states maintain their status as the most favored business climates in America. The Southeast was overwhelmingly ranked highest as the region that has “done the most to improve its overall business climate in recent years.”
3. Most corporate clients (69%) are expected to expand their facilities sometime this year. Only 20 percent are expected to “stay about the same.”
4. Suburban and rural locations will benefit as employers look outside of large city centers to establish workplace hubs. Forty-seven percent said that their

clients are looking to move to suburban and rural areas; 47 percent said their clients would stay about the same; and only six percent said that their clients were considering consolidating locations in central cities.

In late 2021, Cushman & Wakefield wrote that for office location decisions there was some movement of businesses from large, expensive cities to smaller, more affordable cities, but not en masse. Cushman & Wakefield suggested that this trend might be overstated, and it expected major gateway markets to resume their leading position. They pointed to a strong upswing in apartment occupancy data in gateway markets as an early indicator of this.

Another trend has been the shortening of decision times for site selection. In a rapidly changing world, companies need to make decisions quickly and be up and running as fast as possible. Those looking for existing buildings seek those that meet almost all of their criteria so they can move in and begin operations quickly.

Shovel-ready sites are also in high demand. Companies expect sites to have all infrastructure in place, clear ownership, a fixed price and no zoning, regulatory or environmental issues. Having sufficient ready product is more important than ever. The site selector mantra in 2022 is “no product, no project.” Without a strong real estate portfolio, economic developers are eliminated from consideration early in the process.

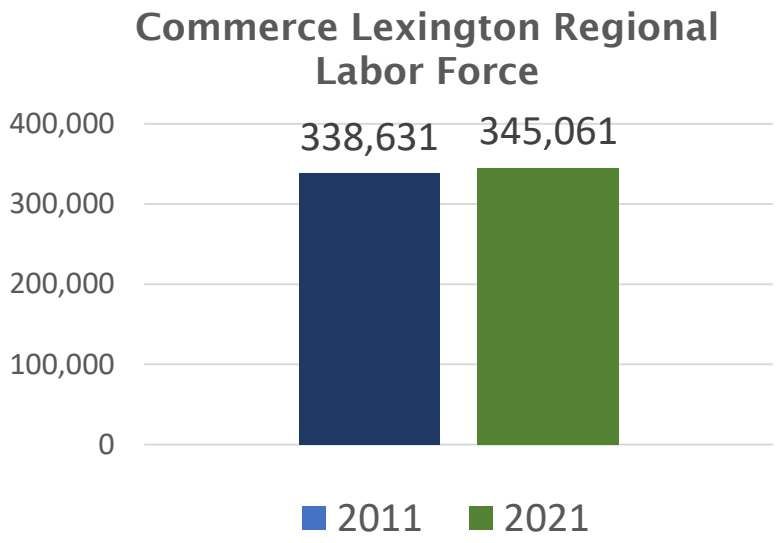
Kentucky currently has 15 sites over 500 acres in their site data base, but only one is in the Bluegrass Alliance region. Many competitor states have several certified mega-sites and dozens of shovel-ready properties. Without additional large shovel-ready sites that include ready-to-go utilities the Bluegrass Region will not be competitive for many major projects.

Regional parks with shared costs and benefits between counties have become a popular way to address this issue. In South Carolina multicounty business parks are a powerful tool. For years counties have used the approach to promote industrial development. More recently commercial development has been included and popular. Two examples are in Greenwood and Newberry, moderate sized communities with sophisticated revenue sharing programs.

Talent Attraction & Retention in a Chronically Tight Labor Market:

EMSI Burning Glass raises the possibility of a “pandemic” in the U.S. and other developed countries, meaning “without people”. The COVID-induced economic shutdown temporarily diverted attention from the extremely tight U.S. labor market driven by worker retirements, low birth rates, low immigration rates, and low labor force participation. But what happens when, in general, the supply of people “isn’t increasing. Or what if it’s decreasing?”

EMSI suggests that much of the world "simply won't have enough people for all of the work that needs to be done." EMSI says that successful communities will be those that do the best job of cultivating limited talent – via both attraction and retention – focusing on the working-age population and developing youth aged 15 and under. Many will have to "play defense," using mitigation tactics to make the best use of small available labor pools.



Over the past decade (2011-2021) the Bluegrass Region has grown its labor force by only 1.9 percent or 6,430 workers. During the same period over 21,000 net new jobs have been added.

In a late 2021 survey by the Site Selectors Guild, 78 percent of members said that talent shortages are impacting where firms will consider investing in new or expanded facilities. Forty-one percent thought that skill shortages will be the new normal. Regarding community incentive programs to recruit talent, 53 percent said that they were a good use of resources while 35 percent thought they were a waste of resources.

Many states and cities had already established incentive programs to lure "Digital Nomads" before the pandemic. But the increasing potential for the US economy to include a significant percentage of permanently remote workers has created even greater interest in talent incentives by communities. Notable city examples include:

- Tulsa Remote – a $10,000 grant payable upon purchase of a home has lured 1,400 workers
- Savannah Technology Workforce Incentive – providing up to $2,000 for moving expenses
- Remote Shoals in northwest Alabama
- Greensburg, Indiana – featuring a "Grandparents on Demand" babysitting service.

At the state level, the Ascend West Virginia program focuses on growing talent and population levels in a few small cities, offering plentiful outdoor recreation in addition to cash incentives. Maine and Vermont also have state programs.

More examples of best practices are provided in the appendix.

Higher Education

Trends from the National Student Clearinghouse Research Center showed the continuing enrollment impacts of the pandemic on four-year and two-year institutions:

- After a 2.5 percent drop in higher education enrollment in the fall of 2020, enrollment declined another 2.7 percent in the fall of 2021. This represents a two-year enrollment decline of 938,000 students since the fall of 2019.
- Undergraduate numbers fell by 3.1 percent in fall 2021, and enrollment fell at every type of institution (public, private, for-profit, two-year, four-year).
- Community college enrollment declined by 3.4 percent, not as steep as the previous year.
- The sharpest drop in undergraduate enrollment was at for-profit, four-year schools, which saw a decline of 11.1 percent.
- Freshman enrollment stabilized after a huge drop in 2020, but was still 9.2 percent below pre-pandemic levels, with about 213,400 fewer freshman students than in 2019.
- Enrollment of adult students 24 and older fell by 3.4 percent in fall 2021.

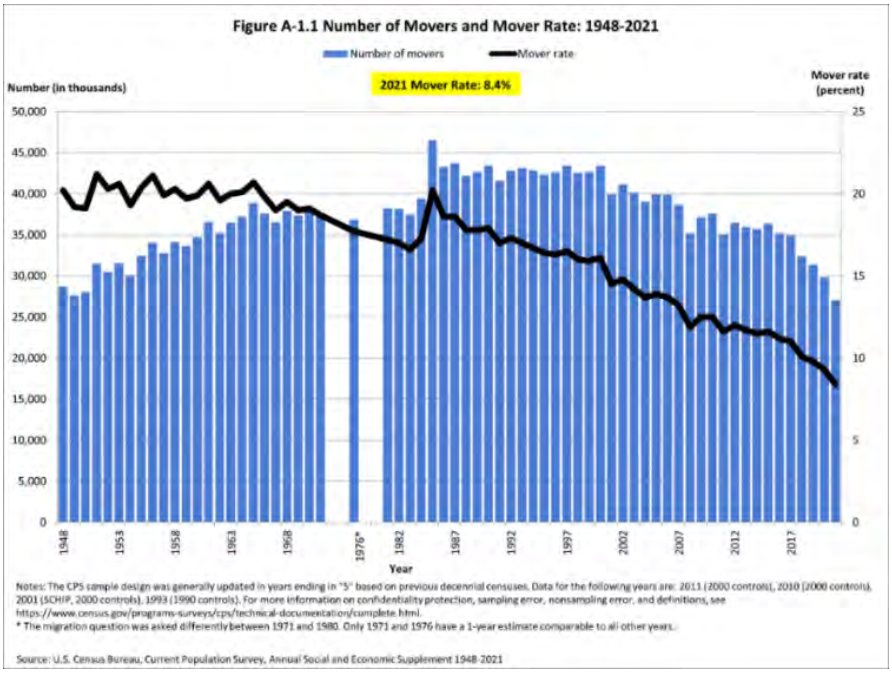
For instance, The University of Kentucky is crucial to the regional economy. Over the past seven years, total enrollments have been stable.

Personal Impacts

By February 2022 the US personal savings rate had fallen to 6.3 percent, a nine-year low. That figure is slightly below the pre-COVID average, and well below the long-term U.S. savings rate of about 9.0 percent. One year earlier, the savings rate was 13.5 percent. Analysts say that households have still accumulated $2.7 trillion in “excess savings” since the pandemic began. Most of this is likely concentrated in wealthier households.

Many Americans are apparently not feeling wealthier. In an early 2022 New York Times survey, 50 percent of respondents said they had less savings than before the pandemic, while just 16 percent said they had more. However, that could be a case of short-term memory, since research by the JPMorgan Chase Institute around the same time showed that the median checking account balance was significantly greater than before the start of the pandemic.

There has been much discussion about the COVID-19 pandemic prompting more people to move – whether because displaced workers needed to find a more affordable place to live, or because remote working meant that people could choose to live anywhere that appealed to them.



However, the data has not borne this out, at least not yet. In 2021, 8.4 percent of people moved to any different residence, the lowest rate in over 70 years. For comparison, this annual moving rate hovered around 20 percent until 1966, and above 15 percent until 2001. A miniscule percentage of Americans – 1.4 percent – moved to a different state last year. The region gaining the most movers was the South, with a net gain of 253,000. The Northeastern states saw a net loss of 227,000 people.

This continued decline in mobility in the US should be concerning for employers. While the nation's workforce has earned a long-term reputation for a willingness to relocate in search of economic opportunity, the seven-decade slide in mobility indicates that this is largely no longer the case. The increasing average age of the labor force is probably the primary reason for the reluctance to relocate. An inability to lure workers from elsewhere will make finding enough employees in an already-tight US labor market even more difficult.

Most of the recent growth in Kentucky has been in the Louisville and Lexington metros. The Lexington metro, like many communities across the country, experienced growth due to urbanization, rural residents relocating to urban areas. That trend seems to be less prevalent as rural populations have stabilized. The pandemic has accelerated a more recent trend of central urban dwellers moving outward for space and affordability. Most of the movement has been between Kentucky counties and will take an aggressive effort to attract individuals from other states.

What Does it all Mean? 7 Clear Takeaways

#1 The regional economy needs to be more competitive. Despite labor shortages, excellent educational attainment numbers and an outstanding quality of life, the regional growth in population, jobs, wages, and GDP lags many competitor communities and national averages. Aggressive actions and investments to improve the region's competitiveness are needed.

#2 The regional labor force needs to grow. The availability of skilled workers will be a critical factor in economic success in the coming years – probably the most important factor. The region's labor force growth has been slow, and a better strategy for talent attraction and retention of younger workers is needed.

#3 More ready sites and buildings are needed. The investment decision process has accelerated in recent years. For most clients the immediate availability of shovel-ready sites or ready-to-occupy buildings that meet their needs is a determining factor. Due to infrastructure needs, zoning decisions, and the lack of speculative building the region's real estate product is limited. Actions to expand and improve the available buildings and sites are needed to successfully compete for the opportunities that the region gets.

#4 Wages need to rise. The region's current industry mix creates too few high paying jobs. Actions are needed to focus marketing and business support efforts on industries that raise the average wages across the region.

#5 Opportunities abound. As the impacts of the pandemic wane, reshoring expands and innovation surges, most businesses report a need for new facilities and more workers. In addition, federal stimulus funding is available to cities and counties to invest in infrastructure, product development and worker training. Kentucky and the Bluegrass Region have opportunities if they can meet business needs.

#6 Data analytics are important, and mostly regional. Counties in the region are working to grow and improve, and these efforts are important. Detailed data is easily accessible to any potential investor today and "**regional"** is the geography most often used for comparison. Labor sheds, housing availability, cost of doing business and many other factors are aggregated at the regional level by site selectors and compared to other regions across the country. Regional assessment, collaboration and alignment is imperative to success.

#7 **Regional collaboration can be hard, but it is necessary for success**. Branding, economic development marketing, talent attraction and retention, product development, and business support are all activities where working together can improve efficiency and effectiveness.

Recommendations for Action 2022-2027

Economic Development Strategy - Increase the regional job, wage, and GDP growth rates to the national average

Lead Responsibility: Bluegrass Alliance
Budget Annual: Total- $1.1million ($600,000 personnel, $450,000 client generation activities, $50,000 product development support.)
Budget – Five Years: $5,500,000

Strategic Actions

1. Increase investment in regional branding and site selector awareness with a focus on quality of life and affordability.
2. Create a detailed multi-jurisdictional product development strategy to secure more shovel-ready land and buildings, including developing a strategy and advocacy plan for the creation of a regional business park.
   • Seek grants or low-interest loans as seed funding for a speculative building program; or cover carrying costs to incent private sector development of speculative buildings.
   • Examine the potential to create a competitive economic development megasite of at least 1,000 contiguous acres with multi-modal transportation and robust utility capacity.
3. Develop a proactive program to educate key leaders in the region about economic development/site development needs and post-pandemic competitive realities.

Metrics for Measuring Success

- Prospects
- Total Jobs and investment from projects assisted
- Net new jobs in new targets- technology and business and professional services
- Average wages of new jobs
- Regional average wage growth above inflation
- Growth in the number of shovel-ready sites
- Growth in new speculative buildings
- Leaders participating in programs

Workforce Strategy - Increase the regional labor force by 1,500 per year

Lead Responsibility: Business and Education Network
Budget Annual: $200,000 personnel plus $275,000 programmatic
Budget – Five Years: $2,375,000

Strategic Actions

4. Develop a regional talent recruitment/attraction marketing campaign with messages aligned with the economic development branding effort.
5. Initiate Intern Connect - Create a work experience platform to connect business with students in the region for internships, etc. to increase the stickiness of young adults.

Metrics for Measuring Success

- Growth in regional labor force
- Contacts/interest from marketing efforts
- Interns active in the program
- Interns taking jobs locally

Leadership/Regionalism Strategy - Increase the state and region's competitiveness by attracting state and federal funding and advocating for policy improvements

Lead Responsibility: Regional Public Policy Group
Budget: $200,000 annually
Budget – Five Years: $1,000,000

Strategic Actions

6. Coordinate advocacy for federal and state infrastructure and product development funding.
7. Advocate for improved tax/regulatory policies that will improve the region's competitiveness.

Metrics for Measuring Success

- State and Federal funding for regional jurisdiction and projects
- Demonstrated increase in infrastructure capacity
- Ranking of the state and region in third party comparisons

Total five-year budget requirements to implement the strategic actions: $8,875,000

Appendix - Workforce Best Practices

Best Practices Examples in Talent Attraction, Recruitment, Marketing

Greater Oklahoma City's heralded talent attraction website is called A Better Life OKC. It features a relocation cost calculator, showing how far an individual's current salary in a different market will go in Oklahoma City. A Better Life OKC is also heavy on job, internship, and quality of life information.
https://www.abetterlifeokc.com/index.php

The growing Northwest Arkansas region also has a successful recruitment website, Finding NWA. The site touts the region as a place where "employment is abundant, housing is affordable, commutes are short, and the region is…a place where you can have a real impact." The "Life Works Here" section gives details on a $10,000 talent and entrepreneur attraction incentive, payable in cash or bitcoin. Northwest Arkansas is also known for hosting a successful Young Professional Summit annually. Started in 2016, the YP Summit strives to increase attachment to the region and develop new community leaders.
https://findingnwa.com/

A group of small cities located along the Fox River in Wisconsin holds on-campus recruitment events at colleges and universities in the upper Midwest, called Fox Cities Days. Arranged through the Fox Cities Chamber, leading employers from the region travel to meet students at various schools each year. The Fox Cities Chamber also hosts a two-day Future Fox Cities Career Expo annually. This expo is for middle and high school students from three area counties to meet employers and learn about career opportunities in the region.
https://foxcitieschamber.com/talent/fox-cities-days-fox-cities-chamber/
https://foxcitieschamber.com/talent/future-fox-cities-fox-cities-chamber/

The Manufacturing Institute's successful Heroes MAKE America talent recruitment program for separating military personnel and their families currently operates at Fort Campbell, and perhaps could be expanded to Fort Knox and/or Blue Grass Army Depot. Heroes MAKE America offers short-term Certified Production Technician (CPT) and mechatronics training for transitioning military and their spouses. Kentucky has more than 33,000 active duty members in the military.
https://www.themanufacturinginstitute.org/veterans/heroes-make-america/

Since 2011, the City of Hamilton, OH (population 62,000) has offered Russell Price Fellowships annually to recent college graduates. In addition to offering public sector management experience, the 11-month program provides a small

salary and a free downtown apartment. Fellows have come from universities across the country, and the city's retention of them has been impressive.

Best Practices in Internships, Pre-Apprenticeships, Work Experience

Even in a growing area like the Charleston, SC region, companies have difficulty finding enough skilled workers. To develop the pipeline for major employers such as Boeing, Bosch, and Volvo, the Charleston Regional Youth Apprenticeship Program and Trident Technical College created a two-year paid **youth apprenticeship** initiative. About 130 companies participate in the program, which is available in 15 career pathways. It is open to high school juniors and seniors who also receive a year of college credit at no cost.
https://www.tridenttech.edu/career/workforce/car_youth_apprentice.htm

West Virginia's **Simulated Workplace** program transforms career and technical education (CTE) classrooms into authentic team-based work environments. Student teams create STEM-focused projects which are evaluated onsite by area business leaders. Students are treated like employees in everything from interviewing to drug testing to workplace safety training. Launched in 2013, Simulated Workplace was expanded statewide in 2015 and now impacts 24,000 students a year. In 2018 the state board of education made it a mandatory part of each CTE concentrator's experience. Simulated Workplace has been credited with a doubling of students concentrating in CTE.
https://careertech.org/resource/west-virginia-simulated-workplace
https://wvde.us/simulated-workplace/

In 2016, Rhode Island set a goal of offering every public school student a work-based learning experience, such as an internship relevant to in-demand careers in the state. It launched **PrepareRI**, a partnership of the state government, private industry, the K-12 public school system, universities, and non-profits. The partnership believes that all young people "will need some form of postsecondary credential and practical work experience to be successful." The PrepareRI Internship Program offers paid summer internships for high school juniors. Students are matched with internship opportunities by the non-profit Skills For Rhode Island's Future. Interns are paid $11.25 per hour, can work up to 240 hours, and receive work readiness skills training.
https://www.prepare-ri.org/
https://www.prepare-ri.org/internships

This competitive analysis and strategic action agenda were prepared by Economic Leadership in 2022.