Kentucky Economic Analysis PY 2021

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Prepared by



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The Program Year (PY) 2021 Kentucky Economic Analysis report is produced by the Workforce Intelligence Branch of the Kentucky Center for Statistics (KYSTATS) to provide a detailed analysis of the economy and workforce of the Commonwealth and its ten Local Workforce Areas (LWAs). This report is compiled in accordance with Training and Employment Guidance Letter (TEGL) No. 1-21, issued by the U.S. Department of Labor, Employment and Training Administration (ETA).

This analysis provides an in-depth review of Kentucky's labor market conditions and economy, including population, demographics, workforce, and industrial and occupational employment trends and activities. The report also compares the state's economic outcomes relative to the nation as a whole.

The primary focus of this report includes the years 2011 to 2021. Projection estimates for occupations cover the years 2019 to 2029.

To better understand the diversity of Kentucky's economy, this report also provides demographic and economic information on the Commonwealth's ten LWAs, shown in Figure 1 below. The designation of LWAs was mandated in the Workforce Innovation and Opportunity Act of 2014 (WIOA).

Like the counties that comprise them, these ten LWAs can vary significantly in terms of unemployment, occupational employment and growth, population, and educational attainment. Generally speaking, the larger and more urban LWAs have higher educational levels, greater employment growth, and lower unemployment rates when compared to the more rural LWAs.

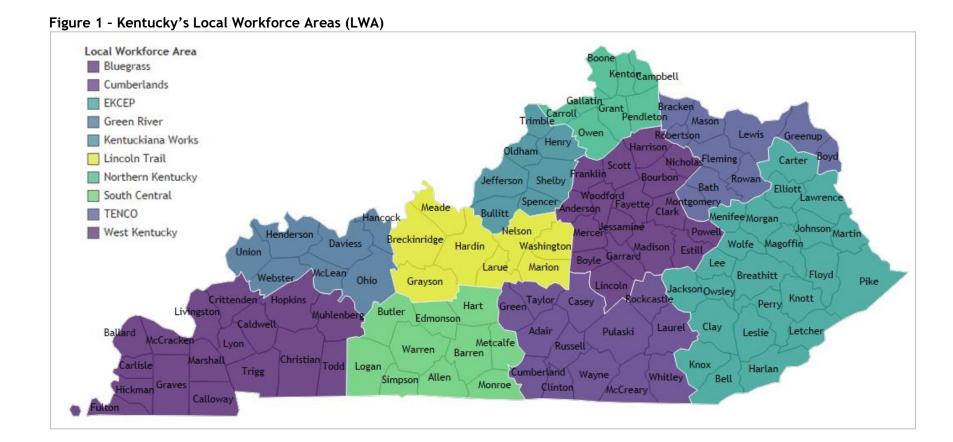
Multiple data sources are used in this report. Measures of the overall economy include Gross Domestic Product (GDP) and personal income, which come from the U.S. Bureau of Economic Analysis (BEA). Population and population projections are from the Kentucky State Data Center at the University of Louisville. Other demographic information is from the U.S. Census Bureau's 2020 Census and the American Community Survey (ACS). ACS 5-year estimates (2016-2020) provide information on economic and demographic characteristics at the county-level. Data for all 120 counties are aggregated to provide estimates at the LWA level.

Labor force data are from Bureau of Labor Statistics (BLS) programs. Information on the United States labor force comes from the Current Population Survey (CPS). Additional labor force data for Kentucky and the ten LWAs come from the Local Area Unemployment Statistics (LAUS) program administered by the Workforce Intelligence Branch at KYSTATS.

Data from the Quarterly Census of Employment and Wages (QCEW) program are used to measure covered industry employment and wage growth over time.

Occupational estimates are available for more than 700 detailed occupations produced by the Occupational Employment and Wage Statistics (OEWS) program and KYSTATS.







At the beginning of 2020, key economic indicators reflected economic growth (see GDP and Personal Income), rising employment, and unemployment rates at their lowest in 20 years (see Civilian Labor Force). However, in March, the global COVID-19 pandemic resulted in state-issued social distancing orders and a subsequent economic recession. Though many workers were able to work remotely, many others were laid off as businesses closed or suspended operations to slow the spread of the virus. There were an unprecedented number of initial unemployment claims filed during 2020 (see Unemployment Insurance Claims). Though every sector of the state economy experienced job loss during 2020, the magnitude of job losses varied across industries or regions (see Covered Employment and Wages).

Although the impacts from COVID-19 continue to be evaluated, the recession* that began in initial months of the pandemic was short-lived. Economic recovery began quickly and continued through 2021. Similar to the downturn, the recovery has been uneven and some metrics presented in this report are still below pre-pandemic levels. This report provides an analysis of an economy rebounding.

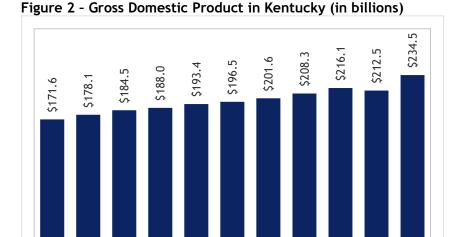
^{*} According to the National Bureau of Economic Research (NBER), the COVID recession began in March 2020 and ended in April 2020.



GDP, produced by the BEA, measures the value of the goods and services produced in the U.S., states, and Metropolitan Statistical Areas (MSAs). GDP estimates are also available by industry.

Kentucky's GDP was \$234.5 billion in 2021, a 10.3 percent increase from 2020.

The growth rate of GDP is an indicator of a region's overall economic health. The chart below compares the annual change in GDP for the U.S. and



Source: U.S. Bureau of Economic Analysis, "Annual Gross Domestic Product (GDP) by State," (accessed July 2022)

2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021

Kentucky since 2011. From 2011 to 2019, Kentucky's GDP grew at a slower rate than the U.S. However, in 2020, the GDP of Kentucky fell 1.6 percent from 2019, slightly less than the U.S. decrease of 2.2 percent. By 2021, GDP growth returned, with Kentucky's percent increase exceeding that of the U.S. for the first time in a decade.

2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021

Kentucky U.S.

**Rentucky U.S

Figure 3 - Over-The-Year Change in Gross Domestic Product

Source: U.S. Bureau of Economic Analysis, "Annual Gross Domestic Product (GDP) by State," (accessed July 2022)



Kentucky GDP dropped sharply in the second quarter of 2020 as businesses closed in response to coronavirus. GDP fell to 2016 levels but began to recover in the third quarter. By the first quarter of 2021, GDP exceeded pre-COVID levels surpassing \$244 billion in the fourth quarter of 2021.

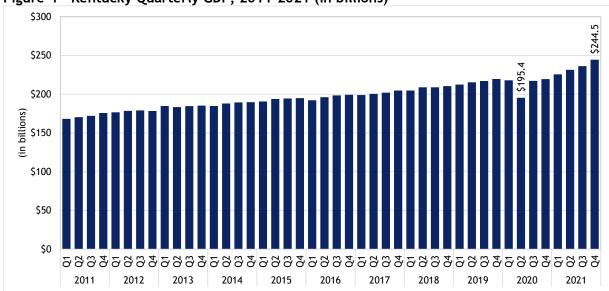


Figure 4 - Kentucky Quarterly GDP, 2011-2021 (in billions)

Source: U.S. Bureau of Economic Analysis, "Quarterly Gross Domestic Product (GDP) by State," (accessed July 2022)

GDP is classified into three major categories: private goods producing, private service providing, and government. Examining the data at this level shows the shift between Goods Producing Sectors and Service Providing Sectors. As shown in Figure 5, 67.5 percent of U.S. GDP in 2011 was from private service providing industries. This increased to 70.3 percent in 2021. In Kentucky, 63.0 percent of the state's GDP was attributed to private service providing industries in 2021, an increase of 3.4 percentage points from the 59.6 percent recorded in 2011, but still below the U.S. average.

Figure 5 - U.S. and Kentucky GDP for Public and Private Sectors, 2011-2021
United States

Kentucky

Unite	d States		
2011	18.8%	67.5%	13.7%
2012	18.6%	68.1%	13.3%
2013	18.9%	67.9%	13.1%
2014	18.8%	68.2%	12.9%
2015	18.0%	69.2%	12.8%
2016	17.3%	69.9%	12.8%
2017	17.7%	69.7%	12.6%
2018	17.9%	69.7%	12.4%
2019	17.5%	70.3%	12.3%
2020	16.9%	70.3%	12.8%
2021	17.6%	70.3%	12.1%

Kenu	иску		
2011	25.0%	59.6%	15.4%
2012	25.8%	59.3%	15.0%
2013	26.6%	58.7%	14.7%
2014	25.7%	59.8%	14.5%
2015	24.9%	60.8%	14.3%
2016	23.8%	62.3%	13.9%
2017	24.5%	61.9%	13.6%
2018	24.0%	62.4%	13.6%
2019	23.8%	62.9%	13.3%
2020	23.2%	63.2%	13.5%
2021	24.2%	63.0%	12.8%
		<u></u>	

■ Private, Goods Producing Industries ■ Private, Service Providing Industries ■ Government Source: U.S. Bureau of Economic Analysis, "Annual Gross Domestic Product (GDP) by State," (accessed July 2022)



Kentucky's economy relied more heavily on private, goods producing industries than the U.S. In 2021, nearly one-quarter of the state's GDP was attributed to private goods producing industries, 24.2 percent, which is down from a peak of 26.6 percent in 2013. The U.S. share declined from 18.9 percent to 17.6 percent over the same time frame and the gap between the U.S. and Kentucky narrowed. In 2013, there was a difference of 7.7 percentage points, which fell to 6.6 percentage points by 2021.

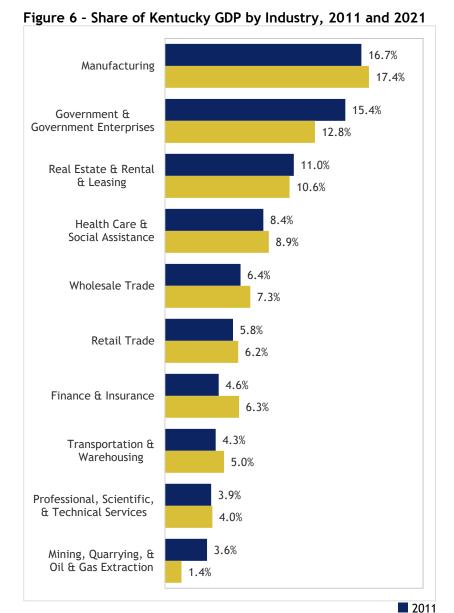
Government as a share of GDP was also higher in Kentucky than in the U.S., 12.8 percent in 2021 compared to 12.1 percent in the U.S. This share declined for both the U.S. and Kentucky, but Kentucky experienced a larger drop, 2.6 percentage points since 2011.

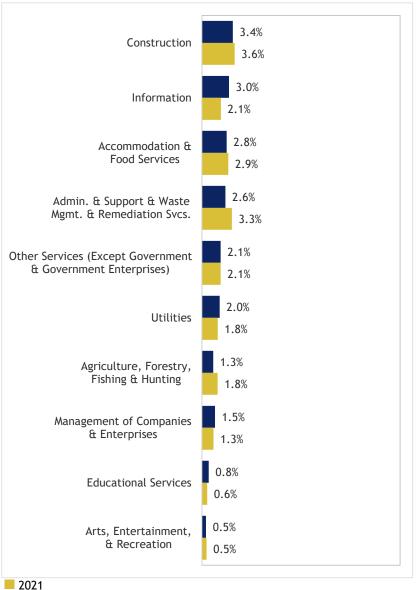
Figure 6 examines the contribution individual economic sectors made towards the state GDP in 2011 and 2021. Four sectors made up nearly half of the state's GDP: Manufacturing, Government, Real Estate and Rental and Leasing, and Health Care and Social Assistance.

Manufacturing was the largest contributor to state GDP in both 2011 and 2021, increasing from 16.7 percent to 17.4 percent. Nationally, manufacturing decreased its contribution to GDP from 12.0 percent to 11.1 percent over this same period. The second largest contributor to Kentucky GDP was Government, though it made up a declining share of state GDP as discussed above.

In addition to Government, several other sectors have experienced a declining share of GDP since 2011. After Government, the Mining, Quarrying, and Oil and Gas Extraction sector experienced the largest overall drop in GDP. In 2011, this sector contributed \$6.2 billion to state GDP, 3.6 percent of total GDP. In 2021, this dropped to \$3.3 billion, 1.4 percent of state GDP.







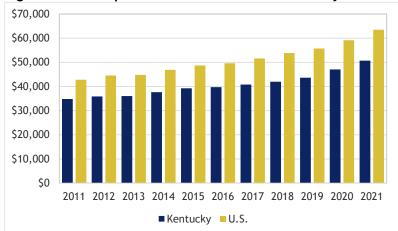
Source: U.S. Bureau of Economic Analysis, "Annual Gross Domestic Product (GDP) by State," (accessed July 2022)



While GDP is a measure of the economic health of the state, a metric that measures the economic well-being of its residents is personal income. Personal income includes wages, employer provided supplements such as insurance, proprietors' income, dividends, interest, rents, and government benefits. Personal income does not include capital gains or losses from investments. Per capita personal income allows for comparison across states or to the U.S.

Kentucky residents received \$228.6 billion in personal income in 2021, an increase of 7.9 percent from 2020, higher than the national increase of 7.4 percent. However, personal income has grown at a Compound Annual Growth Rate (CAGR) of 4.2 percent per year in Kentucky since 2011 compared to U.S. growth of 4.7 percent over the same time period.

Figure 7 - Per Capita Personal Income for Kentucky



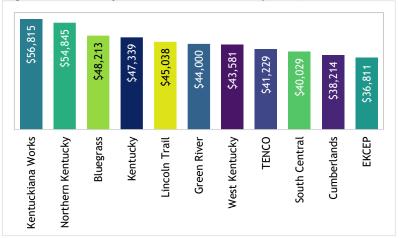
Source: U.S. Bureau of Economic Analysis, "Personal Income Summary," (accessed July 2022)

A comparison of per capita income in the U.S. and Kentucky is shown in Figure 7. In 2021, Kentucky's per capita income surpassed \$50,000 for the first time. For the U.S., per capita income was \$63,444. For most of the last decade, the gap has widened. In 2021, Kentucky's per capita personal income was 79.9 percent of the U.S.

average, down from 81.4 percent in 2011. While per capita income is growing in Kentucky at a compound annual rate of 3.8 percent, it remains lower than the U.S. average and is growing at a slower rate (U.S. CAGR of 4.0 percent).

Personal income, population and per capita personal income are available by county through 2020 which was aggregated by LWA. Kentuckiana Works, Northern Kentucky, and Bluegrass LWAs had higher per capita personal income than the state overall in 2020 which was \$47,339.

Figure 8 - Per Capita Personal Income by LWA, 2020

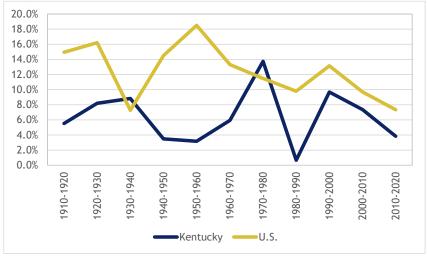


Source: U.S. Bureau of Economic Analysis, "Personal Income Summary," (accessed July 2022)



In 2020, Kentucky's population surpassed 4.5 million residents. However, population growth in the Commonwealth has lagged behind national rates for decades. Between 1910 and 2020, Kentucky's population growth rate exceeded the national average twice, first between 1930 to 1940 (8.8 percent in Kentucky versus 7.3 percent in the U.S.) and most recently between 1970 and 1980 when the Kentucky population growth rate was 13.7 percent compared to 11.5 percent in the U.S. In 2020, Kentucky's population increased 3.8 percent since 2010, half of the national rate of 7.4 percent.

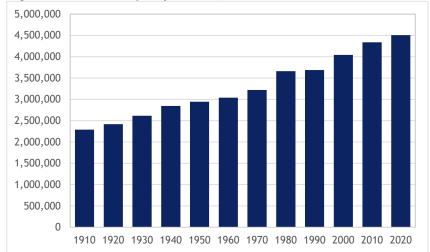
Figure 9 - Change in Population by Decade, Kentucky and the U.S., 1910-2020



Source: U.S. Census Bureau, "Historical Population Change Data (1910-2020)", (accessed June 2021)

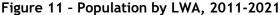
Between 1970 and 1980, the state added 442,071 residents, the most growth in any decade between 1910 and 2020. The next largest growth occurred between 1990 and 2000 with 356,473 additional residents. Between 2010 and 2020, Kentucky's population grew by an additional 166,469 residents, the smallest population increase since the ten-year period from 1980 to 1990.

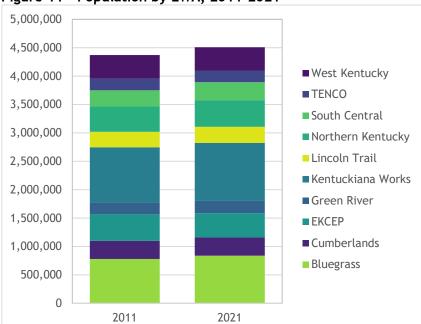
Figure 10 - Kentucky Population, 1910-2020



Source: U.S. Census Bureau, "Historical Population Change Data (1910-2020)", (accessed June 2021)







Two of the 10 LWAs lost population between 2011 and 2021 with the largest decrease occurring in EKCEP with 38,518 fewer residents. West Kentucky also lost population over this timeframe. The largest population increase occurred in the Bluegrass LWA with 57,901 additional residents. More than half of Kentucky's population is concentrated in three LWAs: Bluegrass (18.6 percent), Kentuckiana Works (22.7 percent), and Northern Kentucky (10.4 percent).

Source: U.S. Census Bureau, "Annual County and Resident Population Estimates by Selected Age Groups and Sex" (accessed September 2022)

Counties with the largest absolute growth were:

- Boone (15,670 residents)
- Fayette (20,027)
- Jefferson (31,416)

- Scott (10,338)
- Warren (21,323)

The five counties with the largest absolute decreases were:

- Bell County (-4,798 residents)
- Floyd County (-4,486)
- Harlan County (-2,965)

- Letcher County (-3,122)
- Pike County (-7,532)

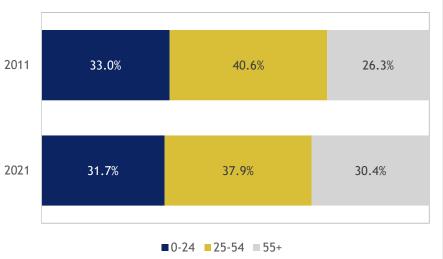
<u>Age</u>

Kentucky's population is older than the nation as a whole. In 2021, the median age of the Kentucky population was 39.2, slightly older than the U.S. median of 38.8.



A closer look at population by age group shows that the share of the Kentucky population that is between the ages of 25 and 54 (gold bars in Figure 12), considered prime age workers, has declined. In 2011, 40.6 percent of Kentucky's population was between the ages of 25 and 54. This fell to 37.9 percent by 2021, a loss of 66,397 prime age workers (a 2.7 percentage point decrease). The share of Kentucky's

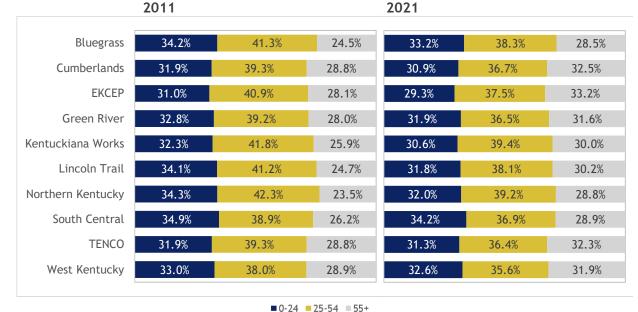




Source: U.S. Census Bureau, "Annual County and Resident Population Estimates by Selected Age Groups and Sex" (accessed September 2022)

population over the age of 55 increased over this same time period, up to 30.4 percent in 2021 from 26.3 percent in 2011, an additional 218,408 residents. The share of young people, under the age of 24 in Kentucky, decreased slightly since 2011. In 2021, there were 1,430,566 residents under the age of 24.

Figure 13 - Population by Age Group by LWA, 2011 to 2021



Source: U.S. Census Bureau, "Annual County and Resident Population Estimates by Selected Age Groups and Sex" (accessed September 2022)

In all the LWAs, the share of the population over the age of 55 grew between 2011 and 2021. Growth in this group was highest in the Lincoln Trail and Northern Kentucky LWAs. In 2011, 24.7 percent of the Lincoln Trail LWA population was over the age of 55. This increased 5.5 percentage points to 30.2 percent in 2021. Northern Kentucky experienced a 5.3 percentage point increase,



up to 28.8 percent in 2021 from 23.5 percent in 2011. The LWA with the highest share of its population over the age of 55 in 2021 was EKCEP at 33.2 percent.

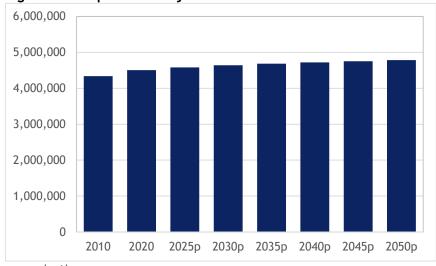
There were four LWAs where the share of their population between the ages of 25 and 54 exceeded the state average of 37.9 percent in 2021- Bluegrass (38.3 percent), Kentuckiana Works (39.4 percent), Lincoln Trail (38.1 percent), and Northern Kentucky (39.2 percent). The EKCEP LWA experienced the largest decline in share for the prime age population, down 3.4 percentage points between 2011 and 2021.

South Central LWA had the largest share of residents younger than 25, 34.2 percent, in 2021 as compared to 31.7 percent for the state.

Population Projections

According to the Kentucky State Data Center, the state population is projected to reach nearly 4.8 million residents by 2050. As shown in Figure 14, this is an increase of more than 279,000 residents between 2020 and 2050, a CAGR of 0.2 percent per year.

Figure 14 - Population Projections to 2050

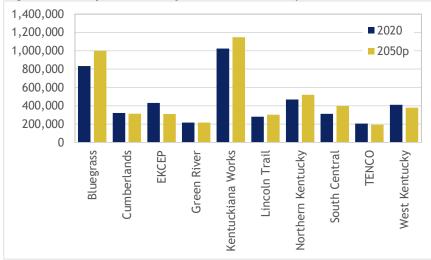


p = projection

Source: Kentucky State Data Center, "Population Projections by Sex and Five Year Age Group," (accessed August 2022)







p = projection

Source: Kentucky State Data Center, "Population Projections by Sex and Five Year Age Group," (accessed August 2022)

Similar to recent trends, the majority of the population growth through 2050 is projected to occur within the two largest LWAs: Bluegrass and Kentuckiana Works. The South Central LWA is also expected to experience strong growth, surpassing growth in the Northern Kentucky LWA. Population growth will outpace the state CAGR (0.2 percent) in these areas with 0.6 percent annual growth in the Bluegrass LWA, 0.4 percent growth in

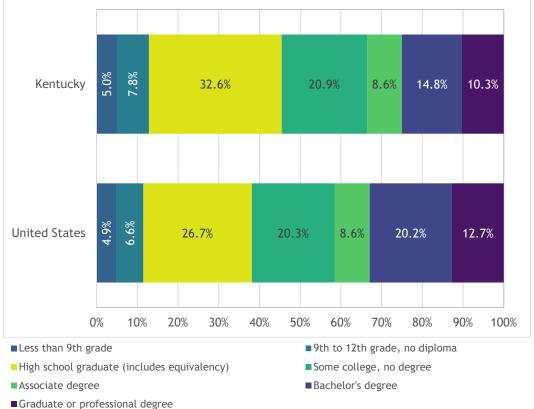
Kentuckiana Works LWA, and 0.8 percent per year growth in South Central LWA. Four LWAs are projected to experience population declines between 2020 and 2050: Cumberlands (-0.1 percent per year), EKCEP (-1.1 percent per year), TENCO (-0.2 percent per year), and West Kentucky (-0.3 percent per year).



The educational attainment of the adult population (those over the age of 25) is often used as an indicator of the skills of the workforce. For example, the share of the population with at least a bachelor's degree shows the potential supply of workers for occupations requiring those credentials for entry.

When comparing the education attainment of Kentucky residents over 25, the largest group is comprised of those who have attained a high school diploma or equivalent (32.6 percent), with the second largest group being those who have attended some college, but did not earn a degree (20.9 percent). One-quarter of Kentucky adults have at least a bachelor's degree compared to 32.9 percent in the U.S. The share of adults that have not completed high school was 12.8 percent in Kentucky compared to 11.5 percent in the U.S.





Source: U.S. Census Bureau, American Community Survey, 2016-2020 Five-Year Estimates, "Educational Attainment," (accessed August 2022)



Figure 17 - Share of Kentucky Adults (25+) with at least a High School Diploma by LWA

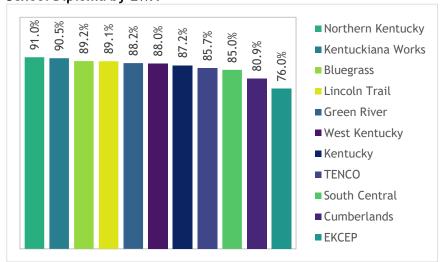
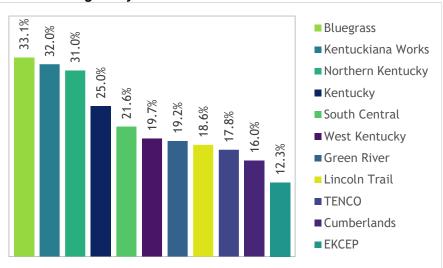


Figure 17 shows the percentage of Kentucky adults with at least a high school degree by LWA. Six LWAs have the same or larger share than the state average of 87.2 percent.

Source: U.S. Census Bureau, American Community Survey, 2016-2020 Five-Year Estimates, "Educational Attainment," (accessed August 2022)

There are three LWAs with a higher share of the adult population with at least a bachelor's degree than the state average of 25.0 percent: Bluegrass, Kentuckiana Works, and Northern Kentucky. In the Bluegrass LWA, 33.1 percent of adults have a bachelor's, professional, or graduate degree. The remaining seven LWAs have lower percentages of bachelor's degree completers, the lowest being EKCEP with 12.3

Figure 18 - Share of Kentucky Adults (25+) with at least a Bachelor's Degree by LWA



Source: U.S. Census Bureau, American Community Survey, 2016-2020 Five-Year Estimates, "Educational Attainment," (accessed August 2022)

percent of the adult population with at least a bachelor's degree.

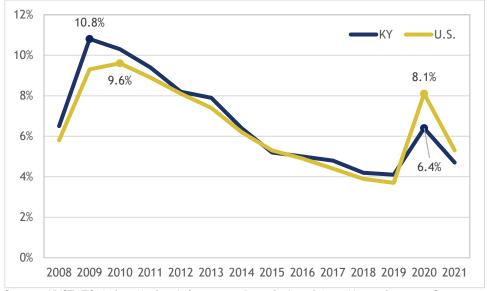


The civilian labor force is defined as the civilian non-institutional population over the age of 16 that is either working or actively looking for work. The civilian non-institutional population includes those residing in the 50 states and the District of Columbia who do not live in institutions (for example, correctional facilities, long-term care hospitals, or nursing homes) and who are not on active duty in the Armed Forces. Students, retirees, and those not seeking work are not included. Persons are classified as unemployed if they do not have a job, have actively looked for work in the prior four weeks, and are currently available to work. Persons who were waiting to be recalled to a job from which they had been laid off need not have been looking for work to be classified as unemployed.

The LAUS program produces monthly and annual estimates of the civilian labor force, employment, unemployment, and unemployment rate for the state and substate areas. The unemployment rate is calculated as the unemployed percent of the civilian labor force. Employment estimates include agricultural workers, self-employed persons, unpaid family workers, private household workers, and those temporarily absent from work for reasons such as illness, vacation, or labor management disputes. National unemployment rates are from the Bureau of Labor Statistics' Current Population Survey program.

During the previous recession, Kentucky's unemployment rate peaked in 2009 at 10.8 percent. The U.S. rate peaked at 9.6 percent in 2010, 1.2 percentage points lower. During the 2020 economic downturn, Kentucky's unemployment rate was 1.7 percentage points lower than the U.S. average of 8.1 percent at 6.4 percent. Unemployment rates fell during 2021, averaging 5.3 percent in the U.S. and 4.7 percent in Kentucky.

Figure 19 - Annual Unemployment Rates, U.S. and KY, 2008-2021 (not seasonally adjusted)

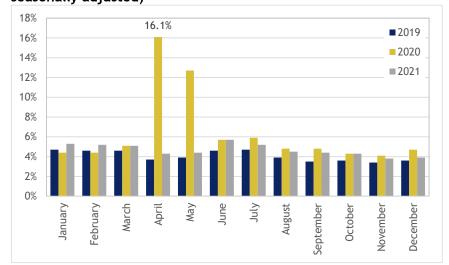


Source: KYSTATS, Labor Market Information Branch, Local Area Unemployment Statistics (LAUS) Report, (accessed August 2022)



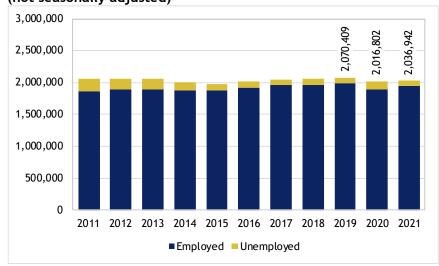
Looking at annual averages masks the turmoil experienced in the economy each month as the pandemic took hold and, later, during the subsequent economic recovery. Figure 20 shows monthly unemployment rates from 2019 to 2021. The unemployment rate was higher than 2019 rates starting in March 2020, peaking in April and then falling but still higher than the same month the previous year. Throughout 2021, rates remained elevated from pre-COVID levels in 2019.

Figure 20 - Monthly Unemployment Rates for KY, 2019-2021 (not seasonally adjusted)



Source: KYSTATS, Labor Market Information Branch, Local Area Unemployment Statistics (LAUS) Report, (accessed August 2022)

Figure 21 - Kentucky Civilian Labor Force, 2011 to 2021 (not seasonally adjusted)



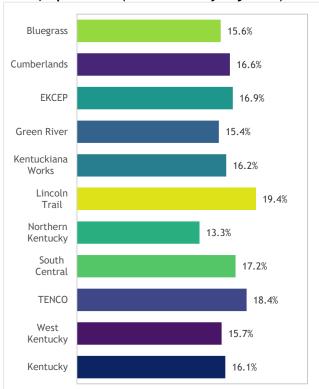
Source: KYSTATS, Labor Market Information Branch, Local Area Unemployment Statistics (LAUS) Report, (accessed August 2022)

The civilian labor force includes the employed and the unemployed. Between 2011 and 2015, the labor force declined, losing nearly 82,000 people. Those losses were recaptured in the subsequent four years. By 2019, the labor force had added approximately 91,000 people reaching 2,070,409. However, COVID impacts reduced the workforce to 2,016,802 in 2020. In 2021, the civilian labor force had yet to fully recover to pre-COVID levels, and was still

33,000 people lower than in 2019. With COVID-19, many workers left the labor force - neither working or looking for work. As a result, the size of the civilian labor force shrank.



Figure 22 - Unemployment Rates in Kentucky LWAs, April 2020 (not seasonally adjusted)



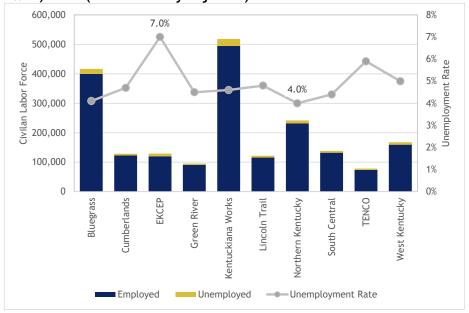
Source: KYSTATS, Labor Market Information Branch, Local Area Unemployment Statistics (LAUS) Report, (accessed August 2022)

The impact of the pandemic was not uniform across the state. The three largest LWAs - Bluegrass, Kentuckiana Works, and Northern Kentucky - made up 57.9 percent of the average annual employment in Kentucky during 2020 but had a disproportionately smaller share of the unemployed, 53.9 percent, indicating that unemployment hit the smaller LWAs harder.

Figure 22 shows peak unemployment rates for LWAs during the month of April 2020. Lincoln Trail had the highest unemployment rate at 19.4 percent, 3.3 percentage points higher than the state average of 16.1 percent. Northern Kentucky's was 2.8 percentage points lower than the state.

The rate of recovery also varied by region. Average annual unemployment in 2021 ranged from a low of 4.0 percent in Northern Kentucky LWA (a 9.3 percentage point difference from April 2020) to a high of 7.0 percent in the EKCEP LWA (a 9.9 percentage point difference from April 2020). However, similar to state trends, the decreasing unemployment rate reflects a drop in the number of unemployed persons beginning in June 2020 with a stable number of employed persons.

Figure 23 - Civilian Labor Force and Unemployment Rates in Kentucky LWAs, 2021 (not seasonally adjusted)



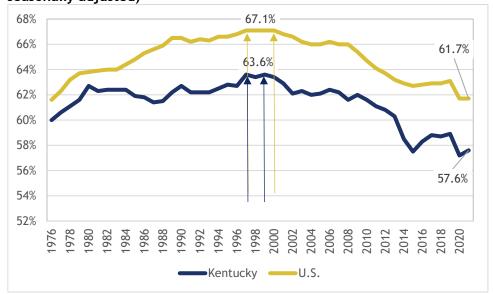
Source: KYSTATS, Labor Market Information Branch, Local Area Unemployment Statistics (LAUS) Report, (accessed August 2022)



The Labor Force Participation Rate (LFPR) is a key measure of the labor market - providing information on the share of the overall population in the labor force. The LFPR is the civilian labor force (employed plus unemployed) as a percent of the civilian non-institutional population.

The annual U.S. LFPR peaked from 1997 to 2000 at 67.1 percent, (not seasonally adjusted). By 2020, the U.S. rate had dropped to 61.7 percent. In Kentucky, the not seasonally adjusted LFPR peaked in 1997 and again in 1999 at 63.6 percent. Similar to U.S. trends, the LFPR in Kentucky decreased over the next 15 years, dropping to a low of 57.5 percent in 2015. However, Kentucky's LFPR then rebounded, increasing to 58.9 percent by 2019. Kentucky's LFPR again fell in 2020 to a new low of 57.2 percent reflecting national trends. In 2021, Kentucky's LFPR averaged 57.6 percent.

Figure 24 - Annual Labor Force Participation Rate (not seasonally adjusted)

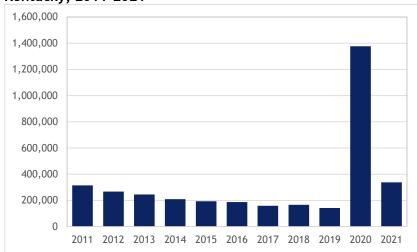


Source: KYSTATS, Labor Market Information Branch, Local Area Unemployment Statistics (LAUS) Report, "Labor Force Participation Rate," (accessed July 2022)



Although Unemployment Insurance (UI) claims are not a representation of total unemployment, they are another way to assess the labor market. Initial claims can be an indicator of emerging unemployment; whereas continued claims can indicate the level of difficulty the unemployed encounter finding a new job.

Figure 25 - Initial Unemployment Insurance Claims in Kentucky, 2011-2021



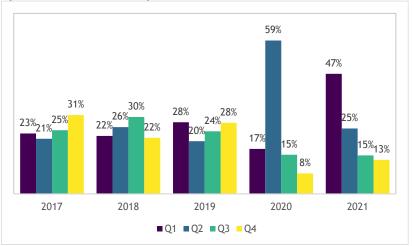
Source: U.S. Department of Labor, Employment and Training Administration, "Quarterly UI Data Summary," (accessed July 2021)

As shown in Figure 25, the number of initial UI claims filed in Kentucky during 2020 reached nearly 1.4 million. UI initial claims fell by more than a million in 2021 to 337,209, but remained higher than pre-COVID levels. There was a change in UI eligibility adopted in response to the COVID-19

pandemic in 2020. UI was expanded to include individuals typically not covered by UI including the self-employed, independent contractors, freelance workers, substitute teachers, and childcare workers employed by religious affiliated organizations and non-profits. In addition, workers that left employment due to risk of exposure or the need to care for a family member affected by COVID-19 were also eligible.

During 2020, the largest share of initial claims, 59 percent, were filed in the second quarter (April through June). In 2021, the largest share of initial claims, 47 percent, were filed in the first quarter (January through March). Although this is 20 percentage points higher than any other share of initial claims in

Figure 26 - Share of Initial Unemployment Insurance Claims by Quarter in Kentucky, 2017-2021

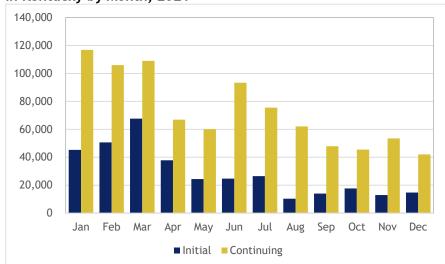


Source: U.S. Department of Labor, Employment and Training Administration, "Quarterly UI Data Summary," (accessed July 2022)

the first quarter during the previous five years, it was 12 percentage points lower than the second quarter of 2020.



Figure 27 - Initial and Continuing Unemployment Insurance Claims in Kentucky by Month, 2021

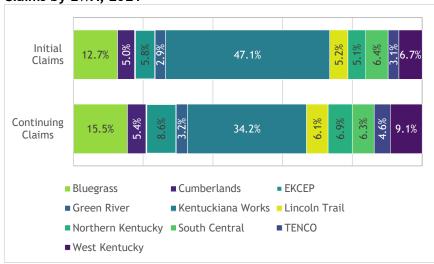


Initial claims peaked in March 2021 with 67,667 claims. Continuing claims peaked in January at 116,885 and remained above 100,000 through March. Continuing claims ebbed and flowed through 2021, declining through May, increasing in June and then declining again until November when they ticked upward.

Source: U.S. Department of Labor, Employment and Training Administration, "Quarterly UI Data Summary," (accessed July 2022)

Among Kentucky's regions, UI claims were concentrated in the larger LWAs. Nearly half of initial claims made in 2021 were made in the Kentuckiana Works LWA, followed by 12.7 percent in Bluegrass LWA. Kentuckiana Works also led in continuing claims, accounting for more than a third. The fewest initial claims were filed in the Green River LWA (2.9 percent of the total, 9,692 initial claims). This region also had the fewest continuing claims during 2021 (3.2 percent of the total, 26,415 continuing claims).

Figure 28 - Initial and Continuing Unemployment Insurance Claims by LWA, 2021

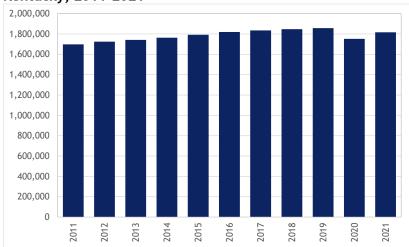


Note: Data does not reflect commuter or interstate claims. Source: Kentucky Unemployment Insurance (UI), Office of Employment and Training, UI Quality Control Branch, Unemployment claims data (accessed July 2022)



The QCEW program publishes quarterly employment and wages by industry sector for employers covered by the UI program. Data are aggregated from single establishments into industries organized by the North American Industry Classification System (NAICS).

Figure 29 - Average Annual Covered Employment in Kentucky, 2011-2021

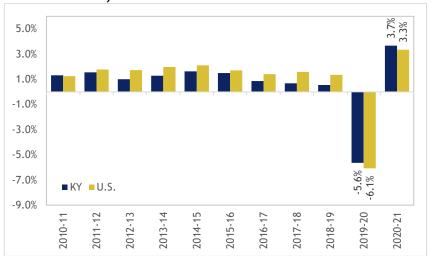


Source: KYSTATS, Labor Market Information Branch, Quarterly Census of Employment and Wages (QCEW), "Employment and Wages by Industry," (accessed August 2022)

In 2021, the average annual employment in Kentucky increased 3.7 percent after dropping by 5.6 percent in 2020. There were nearly 105,000 fewer jobs in Kentucky during 2020 than in 2019. By 2021, more than 64,000 jobs had been recovered, reaching 1,816,714 total jobs in Kentucky.

Between 2012 and 2019, job growth in the U.S., measured by changes in employment in the QCEW program, was higher than the rate of job growth in Kentucky. The rate of job loss in the U.S. between 2019 and 2020 was also greater, 6.1 percent compared to 5.6 percent in Kentucky. The recovery was

Figure 30 - Change in Average Annual Covered Employment from Prior Year, 2011 to 2021

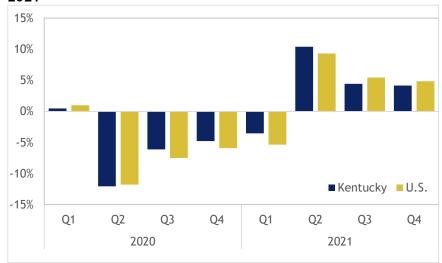


Sources: KYSTATS, Labor Market Information Branch, Quarterly Census of Employment and Wages (QCEW), "Employment and Wages by Industry," (accessed August 2022) and U.S. Bureau Labor Statistics, QCEW for the U.S., (accessed August 2022)

stronger in Kentucky, a 3.7 percent increase compared to 3.3 percent in the U.S.



Figure 31 - Change in Covered Employment by Quarter, 2020 to 2021



Sources: KYSTATS, Labor Market Information Branch, Quarterly Census of Employment and Wages (QCEW), "Employment and Wages by Industry," (accessed August 2022) and U.S. Bureau Labor Statistics, QCEW for the U.S., (accessed August 2022)

Because work is seasonal, changes in employment were examined by quarter to the same guarter in the previous vear. Job growth occurred in the first guarter of 2020 for both Kentucky (0.5 percent) and the U.S. (1.0 percent). Similarly, the largest drop in employment occurred during the second quarter of 2020 for both the U.S. and Kentucky. While iob losses continued through the first quarter of 2021, they were not as steep in Kentucky as they were for the U.S. Second quarter growth in 2021 was higher

in Kentucky (10.4 percent) than the U.S. (9.3 percent). However, growth was higher in the U.S. than Kentucky for the last two quarters of 2021.

Table 1 shows employment by the 20 major industry sectors in Kentucky in five-year increments of 2011, 2016, and 2021. In 2021, the sectors with the largest number of jobs included Government, Health Care and Social Assistance, and Manufacturing. The largest sector, Government with 277,519 jobs, experienced a decline of 29,622 jobs over this decade. Over this same time period, both Health Care and Social Assistance and Manufacturing added more than 29,000 jobs.

Only five sectors experienced a declining number of jobs since 2011. Eleven of the 20 sectors experienced stronger growth than the state (CAGR of 0.7%). Employment in the Utilities sector increased at a CAGR of 7.0 percent between 2011 and 2021, increasing to 4,021 jobs in the sector.



Table 1 - Covered Employment by Major Industry Sector in Kentucky, 2011, 2016, and 2021

	Employment			Chang	Change Since 2011			
Industry Sector	2011	2016	2021	Absolute	Percent	CAGR		
Accommodation and Food Services	150,896	171,166	159,889	8,993	6.0%	0.6%		
Administrative and Support and Waste Management and Remediation Services	93,658	116,165	115,095	21,437	22.9%	2.1%		
Agriculture, Forestry, Fishing, and Hunting	7,041	7,920	8,206	1,165	16.5%	1.5%		
Arts, Entertainment, and Recreation	17,402	20,824	20,110	2,708	15.6%	1.5%		
Construction	66,050	74,765	78,734	12,684	19.2%	1.8%		
Educational Services	11,759	12,590	11,717	-42	-0.4%	0.0%		
Finance and Insurance	66,222	73,082	72,173	5,951	9.0%	0.9%		
Government	307,141	294,292	277,519	-29,622	-9.6%	-1.0%		
Health Care and Social Assistance	222,541	237,960	252,416	29,875	13.4%	1.3%		
Information	25,956	21,761	19,523	-6,433	-24.8%	-2.8%		
Management of Companies and Enterprises	18,595	19,798	19,270	675	3.6%	0.4%		
Manufacturing	210,520	244,269	239,613	29,093	13.8%	1.3%		
Mining, Quarrying, and Oil and Gas Extraction	20,098	7,775	4,779	-15,319	-76.2%	-13.4%		
Other Services (except Public Administration)	47,724	46,192	41,765	-5,959	-12.5%	-1.3%		
Professional, Scientific, and Technical Services	67,278	72,697	78,929	11,651	17.3%	1.6%		
Real Estate and Rental and Leasing	17,444	18,552	19,581	2,137	12.3%	1.2%		
Retail Trade	201,036	213,559	206,708	5,672	2.8%	0.3%		
Transportation and Warehousing	76,116	90,614	115,613	39,497	51.9%	4.3%		
Utilities	2,049	3,347	4,021	1,972	96.3%	7.0%		
Wholesale Trade	68,516	71,705	70,920	2,404	3.5%	0.3%		
Total All Industries	1,698,136	1,819,333	1,816,714	118,578	7.0%	0.7%		

Note: Totals may not sum due to rounding.

Source: KYSTATS, Labor Market Information Branch, Quarterly Census of Employment and Wages (QCEW),

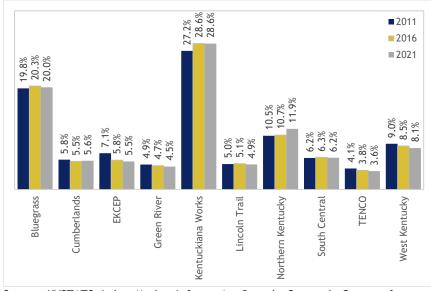
There were four sectors that each added more than 20,000 jobs between 2011 and 2021, despite the economic downturn in 2020: Administrative and Support and Waste Management and Remediation Services with 21,437 jobs, Health Care and Social Assistance with 29,875 jobs, Manufacturing with 29,093 jobs, and Transportation and Warehousing with 39,497 jobs.

Several sectors experienced job losses during these ten years. The largest absolute decline occurred in Government with the loss of 29,622 jobs followed by Mining, Quarrying, and Oil and Gas Extraction with the loss of 15,319 jobs between 2011 and 2021.



[&]quot;Employment and Wages by Industry," (accessed August 2022)

Figure 32 - Concentration of Covered Employment by LWA, 2011, 2016, and 2021



Source: KYSTATS, Labor Market Information Branch, Quarterly Census of Employment and Wages (QCEW), "Employment and Wages by Industry," (accessed August 2022)

Similar to the civilian labor force statistics, OCEW data indicate that employment is concentrated in the LWAs with the largest population base: Bluegrass, Kentuckiana Works, and Northern Kentucky. This concentration is also growing as illustrated in Figure 32. In 2011, 27.2 percent of Kentucky's overall employment was located in the Kentuckiana Works LWA. This increased to 28.6 percent in 2016 where it remained in 2021. Over the same ten-year period, Northern Kentucky and Bluegrass also increased

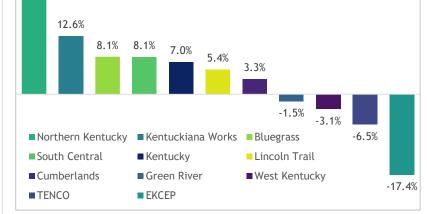
their employment share, though the increases in those areas was more modest. Together, these three areas comprised 60.5 percent of the overall covered employment in the Commonwealth in 2021, up from 57.5 percent in 2011. Several LWAs experienced declining concentrations of employment over the same period. EKCEP suffered the largest drop in employment (20,935 jobs) as well as employment concentration, dropping from 7.1 percent in 2011 to 5.5 percent in 2021.

Between 2011 and 2021, employment grew 7.0 percent throughout Kentucky, increasing by 118,579 jobs. Four of the LWAs experienced growth rates higher than the state as a whole while four saw declining employment over this time period. The areas with the largest growth were Northern Kentucky at 20.8 percent (37,259 iobs) and Kentuckiana Works at 12.6 percent (58,011 jobs).

Although overall employment fell in four

20.8% 12.6% 8.1% 8.1% 7.0% 5.4%

Figure 33 - Change in Covered Employment by LWA, 2011-2021



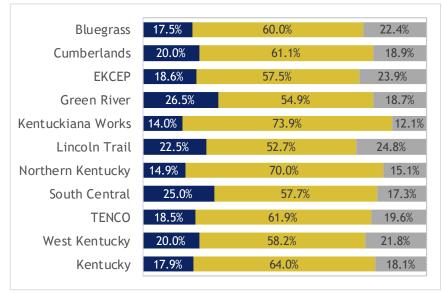
Source: KYSTATS, Labor Market Information Branch, Quarterly Census of Employment and Wages (QCEW), "Employment and Wages by Industry," (accessed August 2022)

of the LWAs, there were still sectors in those LWAs that experienced growth. For example, in EKCEP, which saw the largest decline in overall employment, the following sectors saw growth between 2011 and 2021: Accommodation and Food Services, Educational Services, Health Care and Social Assistance, and Utilities.

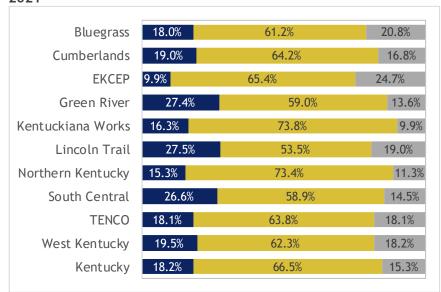


Figure 34 - Share of Covered Employment by Major Industry Groups, 2011 and 2021

2011



2021



■ Goods producing ■ Service providing ■ Government

Source: KYSTATS, Labor Market Information Branch, Quarterly Census of Employment and Wages (QCEW), "Employment and Wages by Industry," (accessed August 2022)

group (73.8 percent).

all Kentucky employment was in Goods Producing sectors. This includes:
Agriculture, Forestry,

In 2011, 17.9 percent of

- Agriculture, Forestry, Fishing, and Hunting
- Construction
- Manufacturing
- Mining, Quarrying, and Oil and Gas
 Extraction

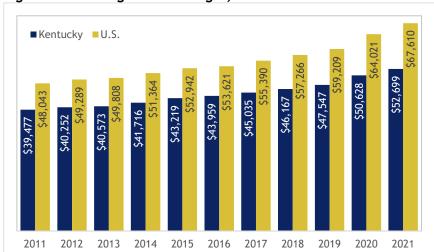
The LWAs with more than 20 percent of employment in this major industry group in 2011 were Green River, Lincoln Trail, and South Central. By 2021, this share had increased to more than 25 percent employment in each of these three LWAs.

Service Providing sectors include all other sectors except for Government. This major group makes up the majority of employment in all LWAs to varying extents. From 2011 to 2021, employment in Service Providing industries in Kentucky grew from 64.0 percent to 66.5 percent. The LWA with the lowest share of employment in this supersector during 2021 was Lincoln Trail (53.5 percent of employment) while Kentuckiana Works had the largest share of employment in this

Employment in Government decreased from 18.1 percent in 2011 throughout Kentucky to 15.3 percent by 2021. LWAs with more than 20 percent of 2021 employment in Government were Bluegrass and EKCEP.



Figure 35 - Average Annual Wages, 2011 to 2021



Source: KYSTATS, Labor Market Information Branch, Quarterly Census of Employment and Wages (QCEW), "Employment and Wages by Industry," (accessed August 2022)

The average annual wage for covered workers in Kentucky grew 4.1 percent in 2021, reaching \$52,699. This compares to an average annual wage for U.S. covered workers of \$67,610 which was an increase of 5.6 percent from 2020. The gap between the average wage in Kentucky and the U.S. overall widened during this ten-year span. In 2011, the average annual wage for Kentucky covered workers was 82.2 percent of the U.S. average. By 2021, this had fallen to 77.9

percent. Average annual wages are growing faster in the U.S. than they are in Kentucky.

As shown in Figure 36, the highest average annual wage for covered workers during 2021 in Kentucky was \$115,297 in the Management of Companies and Enterprises sector followed by Utilities at \$99,315. Combined, employment in these two industries made up 1.3 percent of total covered employment. Industries with the lowest average annual wages were Accommodation and Food Services (\$20,305) and Arts, Entertainment, and Recreation (\$28,823). Combined, these two sectors accounted for 9.9 percent of jobs in 2021.

Industry sectors paying higher wages than the state average (\$52,699) in 2021 include:

- Construction
- Finance and Insurance
- Health Care and Social Assistance
- Information
- Management of Companies and Enterprises
- Manufacturing

- Mining, Quarrying, and Oil and Gas Extraction
- Professional, Scientific, and Technical Services
- Transportation and Warehousing
- Utilities
- Wholesale Trade

Sectors that experienced faster wage growth than the state between 2011 and 2021 (33.5 percent) include:

- Accommodation and Food Services (44.9%)
- Administrative and Support and Waste Management and Remediation Services (49.8%)
- Agriculture, Forestry, Fishing and Hunting (40.3%)
- Arts, Entertainment, and Recreation (42.9%)
- Construction (35.8%)
- Finance and Insurance (45.0%)

- Health Care and Social Assistance (34.1%)
- Information (50.8%)
- Other Services (except Public Administration) (50.5%)
- Professional, Scientific, and Technical Services (38.0%)
- Real Estate and Rental and Leasing (41.1%)
- Retail Trade (38.2%)
- Utilities (36.8%)
- Wholesale Trade (38.0%)





Figure 36 - Average Annual Wages by Industry Sector, 2011, 2016, and 2021

Source: KYSTATS, Labor Market Information Branch, Quarterly Census of Employment and Wages (QCEW), "Employment and Wages by Industry," (accessed August 2022)

■2011 **■**2016 **■**2021



Average annual wages grew in all of the LWAs between 2011 and 2021. The highest wages were paid in Kentuckiana Works, reaching \$61,293 in 2021, a 36.4 percent increase from 2011. The next highest wage was paid in Northern Kentucky at \$56,744 per year, a 36.8 percent increase from 2011. These two LWAs as well as South Central had higher growth rates than the state growth of 33.5 percent between 2011 and 2021. The lowest average annual wages were paid in the

Figure 37 - Average Annual Wages by LWA, 2011, 2016, and 2021 \$70,000 **■** 2011 **■** 2016 **■** 2021 \$60,000 \$61,293 \$50,000 \$52,570 \$40,000 \$30,000 \$20,000 \$10,000 \$0 Kentuckiana Works Northern Kentucky EKCEP TENCO Bluegrass Cumberlands incoln Trail **Green River** South Central **Kentucky**

Source: KYSTATS, Labor Market Information Branch, Quarterly Census of Employment and Wages (QCEW), "Employment and Wages by Industry," (accessed August 2022)

Cumberlands LWA, averaging \$39,525 in 2021. EKCEP followed with an average of \$40,782. Wage growth was also the slowest in EKCEP over this time frame, 12.1 percent since 2011.



In addition to understanding employment and wages by industry sector, similar estimates are available by more than 700 detailed occupations produced by the OEWS program. The OEWS survey is designed to create detailed, cross-sectional, employment and wage estimates, providing a "snapshot" of occupational employment and wages for a particular area and time. It is not designed to be used as a time series.

Figure 38 - Share of Occupational Employment by Median Hourly Wage in Kentucky, 2021



Note: Total does not sum to 100 percent since several occupations did not have a median hourly wage. Source: KYSTATS, Labor Market Information Branch, Occupational Employment and Wage Statistics (OEWS), "2021 Statewide Wage & Employment," (accessed September 2021)

According to occupational employment and wage estimates, Kentucky's median wage across all occupations was \$18.37 per hour compared to the U.S. median hourly wage across all occupations of \$20.17.

Figure 38 displays the distribution of wage estimates across all occupations in the Kentucky labor market. Of the nearly 1.8 million estimated jobs in Kentucky, the majority, 52.6 percent, paid between \$10 and \$20 per hour while 4.8 percent paid less than \$10 per hour. For the jobs earning above \$20 per hour, there were 20.0 percent paying between \$20 and \$30 per hour and another 15.5 percent paying more than \$30 per hour.

The OEWS estimates categorize occupations into 22 major groups. As shown in Table 2 below, the median wage was higher in Kentucky than the same group nationally for one group, Production occupations

(\$18.96 per hour in Kentucky compared to \$18.00 in the U.S.).

In those occupational groups where the United States had a higher median hourly wage, the largest differences were seen in Management, Legal, and Computer and Mathematical occupations.



Table 2 - Comparison of Median Hourly Earnings for Major Occupational Groups

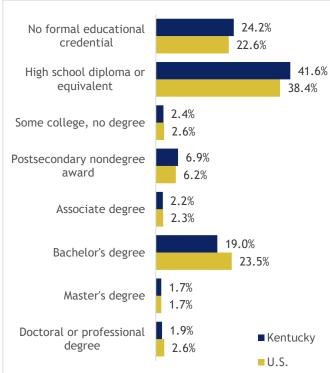
	Companison of Median Flourty Lamings for Ma	Median Hourly Wage		Wage Estimated	
SOC Code	Major Occupational Group	U.S.	Kentucky	Employment in Kentucky	
00-0000	Total	\$20.17	\$18.37	1,782,580	
11-0000	Management	\$52.77	\$40.16	85,990	
13-0000	Business and Financial Operations	\$34.73	\$29.49	79,140	
15-0000	Computer and Mathematical	\$43.92	\$34.76	35,750	
17-0000	Architecture and Engineering	\$39.98	\$34.46	26,150	
19-0000	Life, Physical and Social Science	\$33.54	\$28.36	12,910	
21-0000	Community and Social Services	\$22.85	\$19.98	29,570	
23-0000	Legal	\$40.82	\$31.46	9,850	
25-0000	Education, Training and Library	\$25.18	\$24.14	94,120	
27-0000	Arts, Design, Entertainment, Sports and Media	\$25.55	\$20.05	15,060	
29-0000	Healthcare Practitioners and Technical	\$33.59	\$28.60	122,470	
31-0000	Healthcare Support	\$14.40	\$14.38	69,350	
33-0000	Protective Service	\$21.02	\$16.24	37,590	
35-0000	Food Preparation and Serving-Related	\$12.26	\$10.28	148,160	
37-0000	Building and Grounds Cleaning and Maintenance	\$14.39	\$13.04	46,480	
39-0000	Personal Care and Service	\$13.52	\$12.18	30,070	
41-0000	Sales and Related	\$15.15	\$13.35	160,160	
43-0000	Office and Administrative Support	\$18.62	\$17.30	242,190	
45-0000	Farming, Fishing and Forestry	\$14.27	\$14.01	3,660	
47-0000	Construction and Extraction	\$23.37	\$21.97	67,010	
49-0000	Installation, Maintenance and Repair	\$23.44	\$22.22	83,050	
51-0000	Production	\$18.00	\$18.96	172,360	
53-0000	Transportation and Material Moving	\$16.38	\$16.07	211,490	

Source: KYSTATS, Labor Market Information Branch, Occupational Employment and Wage Statistics (OEWS), "2021 Statewide Wage & Employment," (accessed September 2021)

The occupational groups in Kentucky with the largest estimated employment were Office and Administrative Support, Transportation and Material Moving, Production, Sales and Related, and Food Preparation and Serving Related occupations.



Figure 39 - Employment by Level of Education, 2020

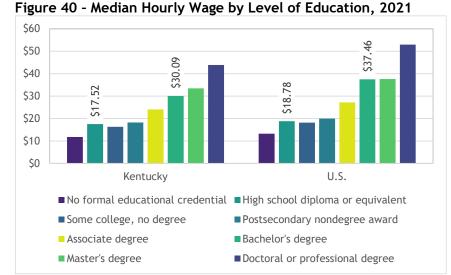


Sources: KYSTATS, Labor Market Information Branch, Occupational Employment and Wage Statistics (OEWS), "2021 Statewide Wage & Employment" and BLS, "Typical Entry-Level Educational Requirement Data, May 2020," (accessed September 2021) The BLS publication, "Typical Entry-Level Educational Requirement Data, May 2020" presents employment and wage data for occupations by the typical education required for entry. As shown in Figure 39, 41.6 percent of Kentucky employment is in occupations that require a high school diploma or equivalent for entry. This compares to 38.4 percent in the U.S. At the same time, the share of employees in occupations that require a bachelor's degree or higher is lower in Kentucky (22.7 percent) than in the U.S. (27.9 percent).

The median hourly wage by level of education shows that Kentucky employees make less per hour than U.S. employees, a difference that grows with education. An employee in an occupation that requires a high school diploma for entry earned \$17.52 per hour in Kentucky, compared to \$18.78 per hour in the U.S., 6.7 percent less in Kentucky. For occupations requiring a bachelor's degree, Kentucky employees, with a median hourly wage of \$30.09, earn 80.3 percent of the median U.S. wage (\$37.46 per hour). In the U.S., employees in jobs requiring a bachelor's degree make twice

the median hourly wage than those employed in jobs requiring a high school diploma (\$18.78 per hour). In Kentucky, that ratio is lower, 1.7 (\$17.52 per hour).

Table 3 provides information on the five largest occupations in Kentucky by education typically required for entry. Median hourly wages by levels of experience are also provided from the 2021 OEWS estimates published by KYSTATS.



Sources: KYSTATS, Labor Market Information Branch, Occupational Employment and Wage Statistics (OEWS), "2021 Statewide Wage & Employment" and BLS, "Typical Entry-Level Educational Requirement Data, May 2020," (accessed September 2021)



Table 3 - Largest Occupations in Kentucky by Typical Education Required for Entry, 2021

Tuble 5	argest Occupations in Kentucky by Typical Educ	acion Required	Hourly Wage				
SOC		Estimated _		25 th		75 th	
Code	Standard Occupational Classification (SOC) Title	Employment	Entry	Percentile	Median	Percentile	Experienced
Less than	high school						
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	65,050	\$10.95	\$12.72	\$15.05	\$18.51	\$22.44
35-3023	Fast Food and Counter Workers	54,430	\$8.35	\$8.88	\$9.75	\$11.35	\$13.02
41-2011	Cashiers	48,050	\$8.70	\$9.43	\$10.65	\$12.51	\$14.92
41-2031	Retail Salespersons	46,080	\$9.12	\$10.40	\$12.27	\$15.42	\$20.48
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	24,070	\$9.08	\$10.53	\$12.61	\$15.62	\$19.71
High school	ol diploma or equivalent Customer Service Representatives	40,620	\$10.40	\$12.41	\$15.65	\$19.76	\$25.84
51-2090	Miscellaneous Assemblers and Fabricators	38,230	\$10.18	\$14.32	\$17.66	\$21.54	\$25.67
53-7065	Stockers and Order Fillers	35,950	\$9.73	\$10.95	\$17.88	\$15.79	\$19.63
43-9061	Office Clerks, General	33,660	\$9.75	\$11.90	\$15.37	\$19.63	\$24.90
31-1120	Home Health and Personal Care Aides	23,630	\$9.13	\$10.49	\$13.37	\$16.06	\$20.15
31-1120	Tiome nealth and Personal Care Aldes	23,030	٦٦.١٥	\$10.49	\$12.32	\$10.00	320.13
Postsecon	dary non-degree award						
53-3032	Heavy and Tractor-Trailer Truck Drivers	27,660	\$15.26	\$18.50	\$23.13	\$29.23	\$37.21
31-1131	Nursing Assistants	20,310	\$10.59	\$11.84	\$13.78	\$15.65	\$18.18
31-9092	Medical Assistants	10,110	\$12.30	\$14.01	\$16.32	\$19.15	\$21.69
29-2061	Licensed Practical and Licensed Vocational Nurses	9,390	\$16.28	\$18.59	\$21.79	\$24.53	\$27.80
49-3023	Automotive Service Technicians and Mechanics	8,510	\$10.33	\$12.64	\$17.32	\$24.39	\$31.06



			Hourly Wage						
SOC		Estimated _		25 th		75 th			
Code	Standard Occupational Classification (SOC) Title	Employment	Entry	Percentile	Median	Percentile	Experienced		
Some coll	ege, no degree								
43-3031	Bookkeeping, Accounting, and Auditing Clerks	17,980	\$10.73	\$14.83	\$18.83	\$23.63	\$28.91		
25-9045	Teaching Assistants, Except Postsecondary	15,190	N/A	N/A	N/A	N/A	N/A		
15-1232	Computer User Support Specialists	6,260	\$14.47	\$18.28	\$23.65	\$30.98	\$38.92		
43-4151	Order Clerks	1,520	\$10.87	\$12.92	\$15.36	\$19.24	\$25.86		
49-2011	Computer, Automated Teller, and Office Machine Repairers	1,500	\$13.71	\$16.40	\$18.87	\$22.53	\$25.77		
Associate	•	4.040	Ć40.40	624.52	625 //	630 (0	ć25.54		
29-2034	Radiologic Technologists and Technicians	4,040	\$18.19	\$21.50	\$25.46	\$30.49	\$35.51		
25-2011	Preschool Teachers, Except Special Education	3,330	\$9.64	\$11.93	\$17.29	\$23.85	\$29.16		
23-2011	Paralegals and Legal Assistants	2,960	\$13.54	\$16.51	\$21.35	\$27.24	\$36.00		
15-1231	Computer Network Support Specialists	2,440	\$17.72	\$21.82	\$27.26	\$34.61	\$42.94		
17-3022	Civil Engineering Technologists and Technicians	2,280	\$18.05	\$19.40	\$21.52	\$25.31	\$28.86		
Bachelor	degree								
29-1141	Registered Nurses	42,940	\$22.54	\$26.71	\$30.94	\$36.73	\$41.24		
11-1021	General and Operations Managers	32,010	\$17.28	\$24.49	\$36.08	\$56.32	\$85.74		
25-2021	Elementary School Teachers, Except Special Education	18,170	N/A	N/A	N/A	N/A	N/A		
13-1198	Project Management Specialists and Business Operations Specialists, All Other	12,630	\$19.42	\$24.18	\$32.14	\$42.49	\$54.14		
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	11,680	N/A	N/A	N/A	N/A	N/A		



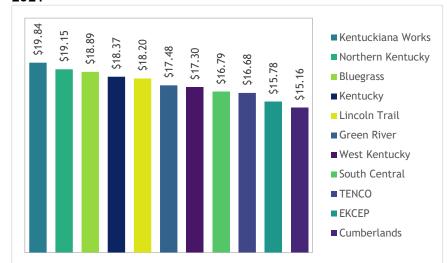
			Hourly Wage				
SOC		Estimated -		25 th		75 th	
Code	Standard Occupational Classification (SOC) Title	Employment	Entry	Percentile	Median	Percentile	Experienced
Master de	gree						
29-1171	Nurse Practitioners	4,250	\$36.25	\$43.41	\$48.81	\$55.73	\$66.09
11-9032	Education Administrators, Kindergarten through Secondary	4,190	N/A	N/A	N/A	N/A	N/A
21-1012	Educational, Guidance, and Career Counselors and Advisors	3,890	\$16.90	\$20.62	\$27.95	\$34.59	\$39.43
25-9031	Instructional Coordinators	2,490	\$17.99	\$22.43	\$28.52	\$36.92	\$45.87
29-1127	Speech-Language Pathologists	2,310	\$25.16	\$28.55	\$34.50	\$43.08	\$52.46
Doctoral c	or professional degree						
23-1011	Lawyers	5,770	\$23.50	\$28.87	\$40.53	\$62.80	\$94.96
29-1051	Pharmacists	4,940	\$41.77	\$54.52	\$61.46	\$69.61	\$79.05
29-1123	Physical Therapists	2,730	\$30.20	\$35.78	\$42.19	\$49.26	\$55.77
25-1199	Postsecondary Teachers, All Other	2,090	N/A	N/A	N/A	N/A	N/A
29-1131	Veterinarians	1,250	\$16.98	\$33.73	\$42.16	\$50.79	\$68.52

N/A = Not available

Sources: KYSTATS, Labor Market Information Branch, Occupational Employment and Wage Statistics (OEWS), "2021 Statewide Wage & Employment" and BLS, "Typical Entry-Level Educational Requirement Data, May 2020," (accessed September 2021)



Figure 41 - Median Hourly Wage for All Occupations by LWA, 2021



Source: KYSTATS, Labor Market Information Branch, "2021 LWA Wage & Employment," (accessed September 2021)

The median hourly wage for all occupations in Kentucky was \$18.37. Kentuckiana Works, Northern Kentucky, and Bluegrass LWAs all exceeded that as shown in Figure 41. The lowest median hourly wage for all occupations was \$15.16 in the Cumberlands LWA followed by EKCEP at \$15.78 per hour.

Table 4 provides estimated employment and median hourly wages for the major occupation groups for each LWA. The

five occupations with the highest estimated employment for each LWA are presented in Table 5.



Table 4 - Estimated Employment and Median Hourly Wage by Occupational Group and LWA, 2021

Table 4 - Estimated Employment and Media		Blueg		Cumberlands		EKCEP			een ver		Kentuckiana Works	
SOC Code	Major Occupational Group	Est. Emp.	Median Hourly Wage									
00-0000	Total	361,680	\$18.89	105,370	\$15.16	104,850	\$15.78	80,000	\$17.48	510,420	\$19.84	
11-0000	Management	19,360	\$40.16	4,190	\$36.36	4,510	\$33.05	3,340	\$35.46	25,410	\$44.31	
13-0000	Business and Financial Operations	17,770	\$28.06	2,500	\$25.48	2,690	\$23.95	2,550	\$28.33	28,770	\$31.21	
15-0000	Computer and Mathematical	7,550	\$31.80	990	\$27.51	900	\$24.66	790	\$32.90	16,380	\$38.25	
17-0000	Architecture and Engineering	6,890	\$35.21	690	\$26.58	970	\$25.73	930	\$34.05	7,870	\$35.60	
19-0000	Life, Physical, and Social Science	4,960	\$26.96	330	\$26.87	550	\$27.18	390	\$26.15	3,190	\$30.87	
21-0000	Community and Social Service	6,490	\$19.93	2,320	\$18.42	3,740	\$19.13	1,090	\$19.67	7,130	\$21.35	
23-0000	Legal	N/A	\$31.36	N/A	\$20.68	580	\$26.43	230	\$27.55	3,430	\$37.10	
25-0000	Educational Instruction and Library	19,820	\$24.73	7,390	\$24.35	9,370	\$23.41	4,400	\$23.24	19,020	\$24.02	
27-0000	Arts, Design, Entertainment, Sports, and Media	4,350	\$21.33	580	\$16.96	410	\$14.53	350	\$17.04	5,190	\$21.80	
29-0000	Healthcare Practitioners and Technical	25,410	\$29.18	7,680	\$26.48	10,210	\$24.93	5,520	\$29.32	34,260	\$29.80	
31-0000	Healthcare Support	13,970	\$14.50	4,730	\$13.06	5,870	\$12.49	3,640	\$13.96	17,840	\$15.92	
33-0000	Protective Service	9,090	\$17.38	2,180	\$16.23	3,730	\$15.22	1,620	\$14.36	9,370	\$15.23	
35-0000	Food Preparation and Serving Related	31,140	\$10.27	9,600	\$9.79	9,170	\$9.70	5,900	\$10.14	37,750	\$11.02	
37-0000	Building and Grounds Cleaning and Maintenance	9,850	\$13.47	2,740	\$11.72	3,210	\$11.51	2,260	\$12.86	12,560	\$13.32	
39-0000	Personal Care and Service	6,640	\$12.57	1,760	\$10.48	1,660	\$11.33	1,100	\$11.22	9,800	\$12.96	
41-0000	Sales and Related	32,180	\$13.26	8,310	\$12.51	11,550	N/A	8,020	\$12.25	42,840	\$15.12	
43-0000	Office and Administrative Support	49,130	\$17.55	16,530	\$14.45	13,670	\$14.77	9,870	\$17.22	73,420	\$18.37	
45-0000	Farming, Fishing, and Forestry	1,910	\$13.57	190	\$14.45	140	\$11.25	250	\$14.94	410	\$14.44	
47-0000	Construction and Extraction	12,940	\$21.46	3,130	\$17.69	5,070	\$21.02	3,700	\$22.43	17,530	\$24.30	
49-0000	Installation, Maintenance, and Repair	14,620	\$22.46	4,670	\$17.93	4,680	\$19.37	4,150	\$21.93	21,560	\$23.66	
51-0000	Production	32,540	\$19.96	11,690	\$15.34	4,000	\$15.75	10,780	\$18.96	46,680	\$20.31	
53-0000	Transportation and Material Moving	32,470	\$16.06	12,570	\$13.79	8,160	\$14.55	9,100	\$15.32	70,000	\$16.39	



		Linc		North		Sou				We	
		Tra	ail Median	Kentı	ucky Median	Cent	ral Median	TENCO Median		_ <u>Kentucky</u> Median	
SOC		Est.	Hourly	Est.	Hourly	Est.	Hourly	Est.	Hourly	Est.	Hourly
Code	Major Occupational Group	Emp.	Wage	Emp.	Wage	Emp.	Wage	Emp.	Wage	Emp.	Wage
00-0000	Total	85,870	\$18.20	204,790	\$19.15	110,610	\$16.79	64,720	\$16.68	142,880	\$17.30
11-0000	Management	3,850	\$39.00	10,350	\$43.19	5,280	\$38.81	3,070	\$36.34	6,230	\$37.00
13-0000	Business and Financial Operations	4,250	\$32.15	9,920	\$30.35	3,560	\$28.32	1,720	\$24.21	4,760	\$28.03
15-0000	Computer and Mathematical	2,100	\$34.20	3,960	\$34.35	960	\$31.19	470	\$24.59	1,340	\$30.43
17-0000	Architecture and Engineering	1,020	\$32.16	3,200	\$34.50	1,970	\$33.62	720	\$34.15	1,710	\$35.72
19-0000	Life, Physical, and Social Science	430	\$30.27	1,210	\$30.15	390	\$28.28	360	\$26.45	1,000	\$29.48
21-0000	Community and Social Service	1,360	\$19.14	1,900	\$21.21	1,520	\$20.61	1,630	\$18.65	2,220	\$19.75
23-0000	Legal	330	\$27.22	740	\$40.18	N/A	\$26.45	220	\$26.64	620	\$26.97
25-0000	Educational Instruction and Library	5,050	\$24.27	9,420	\$24.82	6,940	\$23.76	4,240	\$23.84	8,070	\$23.81
27-0000	Arts, Design, Entertainment, Sports, and Media	510	\$25.96	1,570	\$17.92	940	\$16.00	250	\$15.33	890	\$17.52
29-0000	Healthcare Practitioners and Technical	5,460	\$27.81	10,310	\$31.35	7,250	\$25.75	5,970	\$26.86	9,890	\$27.60
31-0000	Healthcare Support	3,340	\$13.37	5,770	\$15.21	5,000	\$13.22	3,180	\$13.32	5,790	\$13.17
33-0000	Protective Service	1,490	\$18.13	3,850	\$19.94	1,760	\$15.83	1,210	\$19.06	3,130	\$17.28
35-0000	Food Preparation and Serving Related	7,570	\$10.37	16,880	\$10.74	8,960	\$10.08	7,050	\$9.91	13,750	\$9.83
37-0000	Building and Grounds Cleaning and Maintenance	1,810	\$13.36	4,880	\$14.69	2,910	\$12.35	1,770	\$12.57	3,810	\$13.32
39-0000	Personal Care and Service	1,390	\$11.55	3,560	\$12.08	1,660	\$11.86	680	\$11.71	1,790	\$11.90
41-0000	Sales and Related	6,960	\$12.72	17,360	\$16.46	11,850	\$12.00	6,280	\$11.81	13,920	\$12.60
43-0000	Office and Administrative Support	10,910	\$16.69	27,710	\$18.76	13,710	\$15.61	7,900	\$15.28	18,040	\$15.72
45-0000	Farming, Fishing, and Forestry	N/A	\$13.22	110	\$16.52	170	\$14.32	70	\$14.89	320	\$14.67
47-0000	Construction and Extraction	3,770	\$20.13	6,290	\$22.78	4,050	\$19.10	2,710	\$22.06	6,860	\$21.68
49-0000	Installation, Maintenance, and Repair	4,470	\$20.30	10,910	\$23.96	5,140	\$21.80	3,170	\$19.89	9,030	\$22.16
51-0000	Production	12,740	\$19.31	18,610	\$19.33	14,890	\$17.97	5,570	\$17.95	14,370	\$17.45
53-0000	Transportation and Material Moving	7,010	\$16.10	36,300	\$16.58	11,230	\$15.25	6,500	\$16.47	15,310	\$16.76

Source: KYSTATS, Labor Market Information Branch, "2021 LWA Wage & Employment," (accessed September 2021)



Table 5 - Top Five Occupations by Estimated Employment in Each LWA, 2021

rable 5 -	Top Five Occupations by Estimated Employment in Ea	ch LWA, Zi	Median
SOC		Est.	Hourly
Code	Standard Occupational Classification (SOC) Title	Emp.	Wage
Bluegrass	3		
00-0000	Total All Occupations	361,680	\$18.89
35-3023	Fast Food and Counter Workers	10,850	\$9.84
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	10,560	\$14.76
41-2031	Retail Salespersons	10,180	\$12.18
51-2090	Miscellaneous Assemblers and Fabricators	9,430	\$19.35
29-1141	Registered Nurses	9,210	\$30.78
Cumberla	ands		
00-0000	Total All Occupations	105,370	\$15.16
53-7065	Stockers and Order Fillers	4,400	\$11.65
43-4051	Customer Service Representatives	4,140	\$12.86
35-3023	Fast Food and Counter Workers	3,840	\$9.23
41-2031	Retail Salespersons	2,770	\$12.38
41-2011	Cashiers	2,650	\$10.23
EKCEP	T . I . II . O	404.050	Ć4E 70
00-0000	Total All Occupations	104,850	\$15.78
41-2011	Cashiers	5,310	\$9.62
35-3023	Fast Food and Counter Workers	3,480	\$9.22
29-1141	Registered Nurses	3,260	\$28.49
41-2031	Retail Salespersons	2,610	\$11.15
31-1120	Home Health and Personal Care Aides	2,530	\$11.71
Green Riv	ver		
00-0000	Total All Occupations	80,000	\$17.48
41-2011	Cashiers	3,380	\$10.29
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	2,740	\$14.97
35-3023	Fast Food and Counter Workers	2,380	\$9.84
29-1141	Registered Nurses	2,110	\$30.41
41-2031	Retail Salespersons	2,110	\$12.34
W = t = 1	ana Wasta		
	ana Works	E40 420	Ċ40 0 4
00-0000	Total All Occupations	510,420	\$19.84
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	26,130	\$15.03
43-4051	Customer Service Representatives	13,140	\$17.64
29-1141	Registered Nurses	12,540	\$32.81
35-3023	Fast Food and Counter Workers	12,310	\$10.17
41-2031	Retail Salespersons	11,270	\$12.50



			Median
SOC		Est.	Hourly
Code	Standard Occupational Classification (SOC) Title	Emp.	Wage
Lincoln T			
00-0000	Total All Occupations	85,870	\$18.20
51-2090	Miscellaneous Assemblers and Fabricators	4,200	\$20.09
35-3023	Fast Food and Counter Workers	2,960	\$9.63
41-2031	Retail Salespersons	2,270	\$11.85
41-2011	Cashiers	2,180	\$10.83
29-1141	Registered Nurses	1,790	\$30.27
Northern	Kentucky		
00-0000	Total All Occupations	204,790	\$19.15
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	12,410	\$15.93
35-3023	Fast Food and Counter Workers	5,810	\$10.48
53-7065	Stockers and Order Fillers	5,420	\$13.56
43-4051	Customer Service Representatives	5,280	\$17.14
41-2011	Cashiers	4,670	\$11.41
South Ce	ntral		
00-0000	Total All Occupations	110,610	\$16.79
35-3023	Fast Food and Counter Workers	4,200	\$9.79
41-2011	Cashiers	3,870	\$10.14
41-2031	Retail Salespersons	3,630	\$11.59
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	3,260	\$14.32
51-2090	Miscellaneous Assemblers and Fabricators	2,960	\$17.12
TENCO			
00-0000	Total All Occupations	64,720	\$16.68
35-3023	Fast Food and Counter Workers	3,190	\$9.53
41-2011	Cashiers	2,820	\$10.27
29-1141	Registered Nurses	2,180	\$28.59
41-2031	Retail Salespersons	1,560	\$11.74
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	1,480	\$14.54
West Ken			
00-0000	Total All Occupations	142,880	\$17.30
35-3023	Fast Food and Counter Workers	5,200	\$9.47
41-2031	Retail Salespersons	5,200	\$11.60
41-2011	Cashiers	3,650	\$10.25
51-2090	Miscellaneous Assemblers and Fabricators	3,440	\$16.58
29-1141	Registered Nurses	3,360	\$30.37

Source: KYSTATS, Labor Market Information Branch, "2021 LWA Wage & Employment," (accessed September 2021)



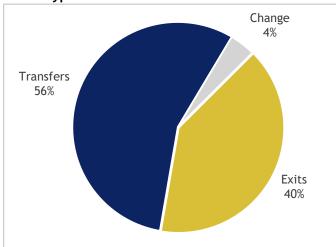
Long-term occupational employment projections reflect predicted employer demand for labor over a ten-year period. Projections are available at the major and specific SOC levels. Occupational employment projections include estimates on projected job openings resulting from three events:

- Individuals transferring among occupations (e.g., a career change)
- Individuals exiting the workforce (e.g., retirement)
- Economic growth (or decline)

The projections also include information on the typical education, training and experience needed for entry, and on-the job training typically needed to reach competency in the occupation from the BLS publication "Education and Training Assignments by Detailed Occupation."

These projections were completed with inputs that preceded the pandemic and therefore do not capture the impacts of COVID.

Figure 42 - Projected Job Openings in Kentucky by Event Type

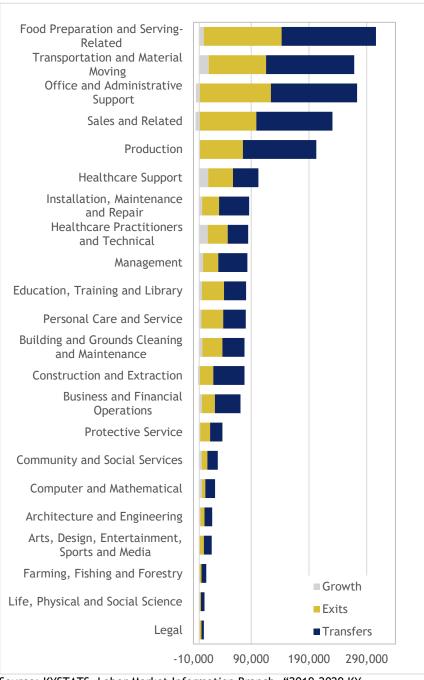


Source: KYSTATS, Labor Market Information Branch, "2019-2029 KY Occupational Outlook," (accessed July 2022)

In Kentucky, the job market is expected to experience nearly 2.2 million job openings between 2019 and 2029, with the majority of openings attributed to workers transferring between occupations. These transfers are expected to account for 56 percent of the total job openings between 2019 and 2029, 1.22 million openings. An estimated 879,994 exits are projected to occur over this time period as individuals leave the labor force. Economic growth accounts for the remaining 4 percent of projected openings (86,311 openings) between 2019 and 2029.



Figure 43 - Total Job Openings by Major Occupational Group, 2019 to 2029



The most projected job openings between 2019 and 2029 are in Food Preparation and Serving-Related occupations. This occupational group is projected to have 306,058 projected openings, the most of any occupational group.

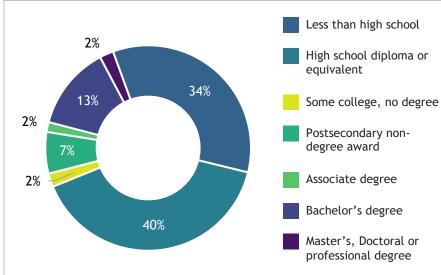
Transportation and Material Moving occupations are estimated to have the next largest number of openings (268,545 jobs). This group also has the most anticipated growth with 16,339 jobs followed by Healthcare Support occupations with 15,698 jobs resulting from growth.

Several occupation groups are expected to have negative growth between 2019 and 2029: Sales and Related Occupations (-6,320 jobs), Office and Administrative Support occupations (-5,722 jobs), Construction and Extraction (-2,272 jobs) and Arts, Design, Entertainment, Sports, and Media (-22 jobs). However, all of these groups experience overall increases in job openings resulting from exits and transfers.

Source: KYSTATS, Labor Market Information Branch, "2019-2029 KY Occupational Outlook," (accessed July 2022)



Figure 44 - Projected Job Openings by Required Education



Source: KYSTATS, Labor Market Information Branch, "2019-2029 KY Occupational Outlook," (accessed July 2022)

expected among occupations requiring these levels of education.

Compared to current requirements, there will be more job openings in the next decade for those with lower levels of educational attainment. One-quarter (26 percent) of all projected job openings in Kentucky from 2019 to 2029 will require an education beyond a high school diploma or equivalent award. Among all projected openings, 34 percent typically require less than high school completion, and 40 percent require only a high school diploma or equivalent award. This is partially explained by the high numbers of exits from the workforce and high numbers of transfers to other occupations

Every occupation in Kentucky is expected to have openings between 2019 and 2029. Recall that job openings come from people transferring between jobs, exiting the labor force, or growth in the occupation. There are 445 occupations that are projected to grow between 2019 and 2029. Demand for employment in these occupations will increase by 117,859 openings. While 24 percent of the employment growth will be in occupations requiring a bachelor's degree for entry, 55 percent will require a high school diploma or less. Overall, regardless of education, occupations that have the largest projected growth include:

- Home health and personal care aides (8,477)
- Laborers and freight, stock, and material movers, hand (6,662)
- Fast food and counter workers (5,091)
- Registered nurses (4,871)
- Cooks, restaurant (3,706)

There are 187 occupations that will experience decreased demand (i.e., negative growth) from 2019 to 2029. In total, employment (not accounting for exits or transfers) is projected to decrease by 31,230 in these occupations, the majority of which require a high school diploma or less education. The occupations expected to experience the largest declines include:

- Cashiers (-4,990)
- Secretaries and administrative assistants, except legal, medical, and executive (-2,370)
- Office clerks, general (-1,616)
- Inspectors, testers, sorters, samplers, and weighers (-1,506)
- First-line supervisors of retail sales workers (-1,438)

In addition, there are 7 occupations that are projected to have the same employment level in 2019 and 2029.



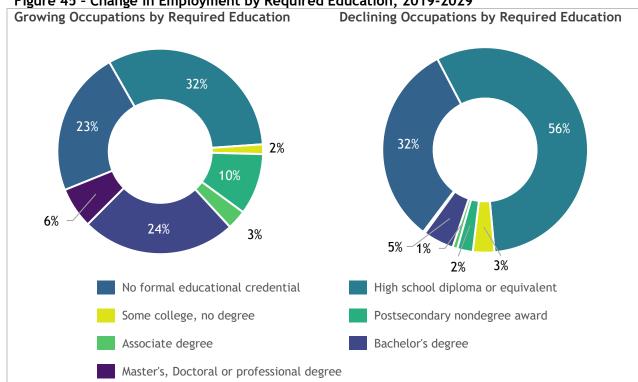


Figure 45 - Change in Employment by Required Education, 2019-2029

Source: KYSTATS, Labor Market Information Branch, "2019-2029 KY Occupational Outlook," (accessed July 2022)

High school diplomas and bachelor degrees are the two levels of educational attainment that typically grant workers entry to the widest variety of occupations, with the former qualifying workers for 266 unique occupations across the state, and the latter granting access to 165 additional occupations. Advanced postsecondary degrees (Master's, Doctoral, and other professional degrees) grant access to 88 occupations that lower levels of educational attainment do not. Only 81 unique occupations do not typically require any formal education credentials.

Occupations can be classified as high, moderate, or basic skill by typical education required for entry.

- High skill occupations include occupations requiring more than a bachelor's degree. This also includes occupations requiring a master's degree or a doctoral or professional degree.
- Moderate skill occupations include occupations requiring an associate degree, postsecondary nondegree award, or some college with no degree.
- Basic skill occupations include occupations requiring either a high school diploma or equivalent or no formal education.

The occupations with the most projected job openings for each skill group are shown in Table 6. Among high skill occupations, the most openings will occur in Registered Nurses with an expected 28,743 openings by 2029. The median wage for this occupation was \$64,339 in 2021.



Table 6 - Most Job Openings by Skill Classification

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SOC		_Est.		Job Op			Median
Code	SOC Title (Code)	Emp.	Exits	Transfers	Change	Total	Wage
High Skill	B	47. 204	42 505	40.247	4 074	20.742	¢44.220
29-1141	Registered Nurses	47,381	13,505	10,367	4,871	28,743	\$64,339
11-1021	General and Operations Managers	30,864	6,431	17,093	1,627	25,151	\$75,062
25-2021	Elementary School Teachers, Except Special Education	18,121	5,867	6,424	794	13,085	\$54,330
13-2011	Accountants and Auditors	12,125	3,527	6,676	793	10,996	\$63,259
13-1198	Project Management Specialists and Business Operations Specialists, All Other	9,735	2,970	5,696	775	9,441	\$66,850
Moderate	Skill						
31-1131	Nursing Assistants	25,246	14,222	12,896	2,545	29,663	\$28,663
53-3032	Heavy and Tractor-Trailer Truck Drivers	27,401	11,494	16,785	1,307	29,586	\$48,099
43-3031	Bookkeeping, Accounting, and Auditing Clerks	20,626	12,119	9,158	-936	20,341	\$39,172
25-9042	Teaching Assistants, Preschool, Elementary, Middle, and Secondary School, Except Special Education and All Other Teach Assistants, Except Postsecondary	15,968	8,428	7,128	725	16,281	\$27,109
31-9092	Medical Assistants	9,285	3,926	6,261	1,953	12,140	\$33,936
Basic Skill							
35-3023	Fast Food and Counter Workers	67,814	65,652	62,711	5,091	133,454	\$20,272
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	61,560	27,838	50,498	6,662	84,998	\$31,301
41-2011	Cashiers	50,736	40,633	40,749	-4,990	76,392	\$22,149
41-2031	Retail Salespersons	55,200	30,605	40,889	-1,173	70,321	\$25,509
51-2092	Team Assemblers	60,739	22,929	38,419	353	61,701	\$36,721

N/A = Not available

Source: KYSTATS, Labor Market Information Branch, "2019-2029 KY Occupational Outlook," and Occupational Employment and Wage Statistics (OEWS), "2021 Statewide Wage & Employment" (accessed July 2022)

Kentucky's ten LWAs are expected to experience uneven growth, with nine of the 10 LWAs growing by at least 3 percent by 2029. EKCEP is projected to grow by 0.3 percent over this same time frame. The fastest growing areas, Northern Kentucky, Kentuckiana Works, and Bluegrass are projected to experience growth of 5.3 percent, 5.3 percent, and 5.0 percent, respectively.



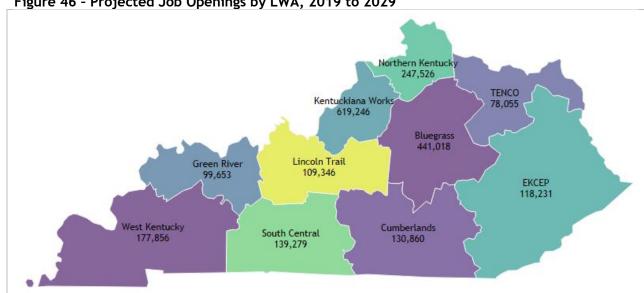


Figure 46 - Projected Job Openings by LWA, 2019 to 2029

Source: KYSTATS, Labor Market Information Branch, "2019-2029 KY Occupational Outlook," (accessed July 2022)

The following table presents total projected job openings for the LWAs (Table 7). Current and projected employment as well as total openings and contributions to openings are shown.

Table 7 - Job Openings by LWA

LWA	2019 Estimated Employment	2029 Projected Employment	Change	Exits	Transfers	Total Openings
Bluegrass	401,174	421,226	20,052	176,734	244,232	441,018
Cumberlands	117,165	122,823	5,658	53,528	71,674	130,860
EKCEP	114,756	115,077	321	51,799	66,111	118,231
Green River	91,497	94,695	3,198	40,470	55,985	99,653
Kentuckiana Works	562,386	591,940	29,554	244,123	345,569	619,246
Lincoln Trail	99,580	104,143	4,563	43,917	60,866	109,346
Northern Kentucky	221,373	233,181	11,808	97,367	138,351	247,526
South Central	124,258	130,288	6,030	56,110	77,139	139,279
TENCO	72,463	74,652	2,189	32,450	43,416	78,055
West Kentucky	163,852	169,168	5,316	72,119	100,421	177,856

Source: KYSTATS, Labor Market Information Branch, "2019-2029 KY Occupational Outlook," (accessed July 2022)

The following images are from the Occupational Outlook, an interactive dashboard which explores 2019-2029 long-term occupational projections for Kentucky and its LWAs, augmented with education and training requirement data. The highlighted region on the map indicates the area for which projections are being displayed.

The bar graph in the upper right displays the total number of projected job openings for a specific area in the next ten years, and the projected levels of each type of event that can produce an opening (Exits, Transfers, and Change).

The 'Educational Attainment' section provides context for the percent of projected job openings in a given area that require each level of educational attainment. Two additional bar charts show the



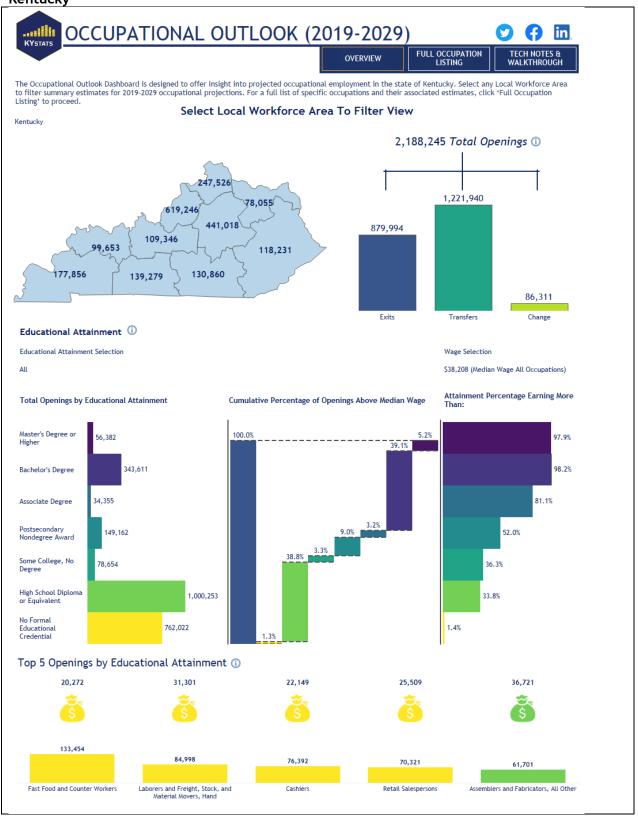
cumulative percentage of openings above the median wage and the share of projected openings above a selected wage (the default setting is the state median wage for all occupations \$38,208).

At the bottom of the dashboard, the total projected openings and median wage estimates are provided for the five occupations by educational attainment expected to produce the most job openings in the next ten years in the selected area.

The Full Occupation Listing dashboard provides users with a sortable list of all available occupations. Clicking on any field name will automatically sort the list of occupations by that field in descending order, and a second click will sort in ascending order. The 'Area' and 'Typical Education Required' filters will filter the table appropriately. The 'Group' filter will limit the table to only those occupations within each of the major SOC groups (e.g., Production Occupations, or Legal Occupations). The 'Keyword' search bar allows users to filter the table to only those occupations with titles containing the entered text.

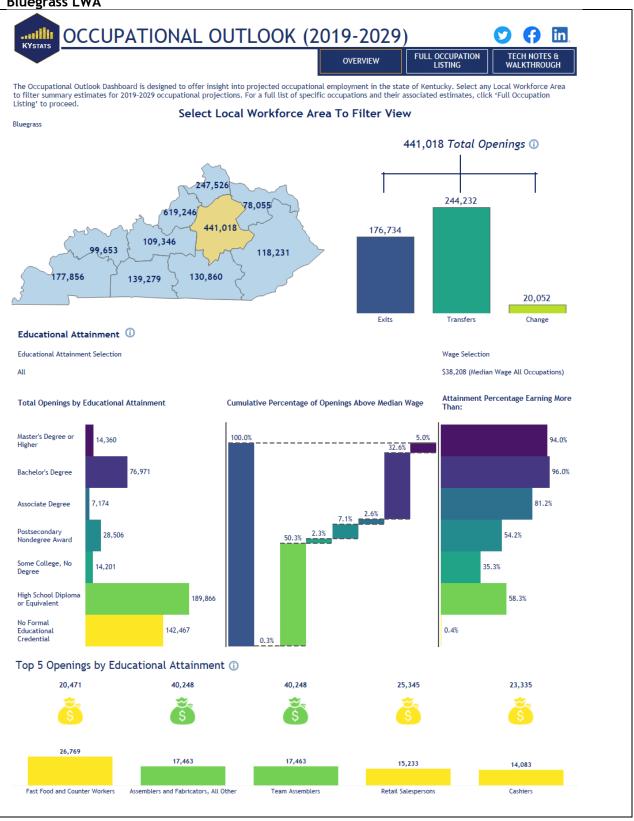


Figure 47 - Kentucky Occupational Outlook by LWA, 2019 to 2029 Kentucky



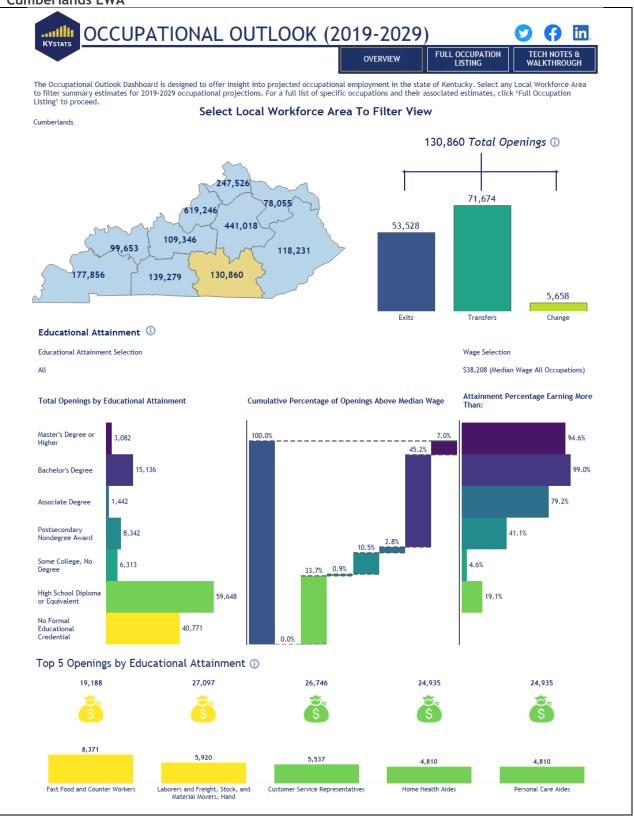


Bluegrass LWA



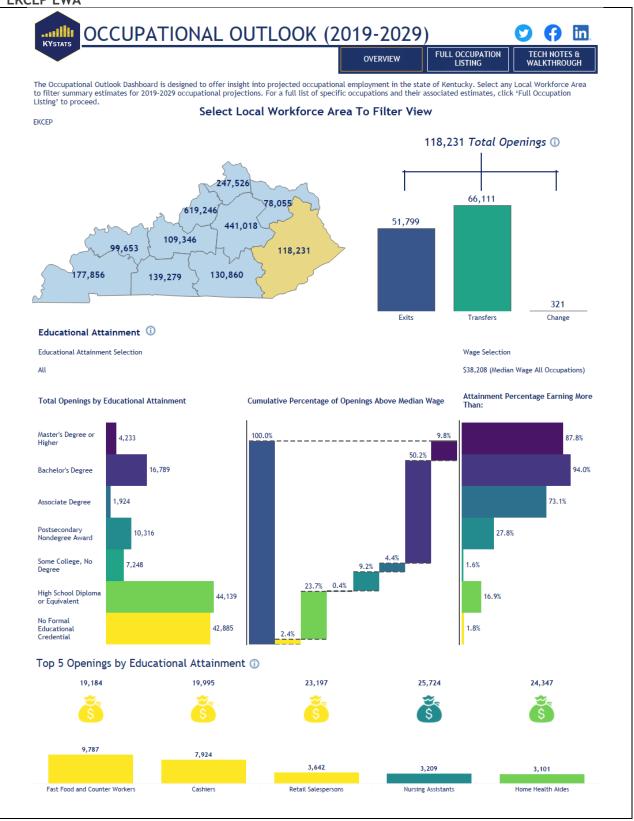


Cumberlands LWA



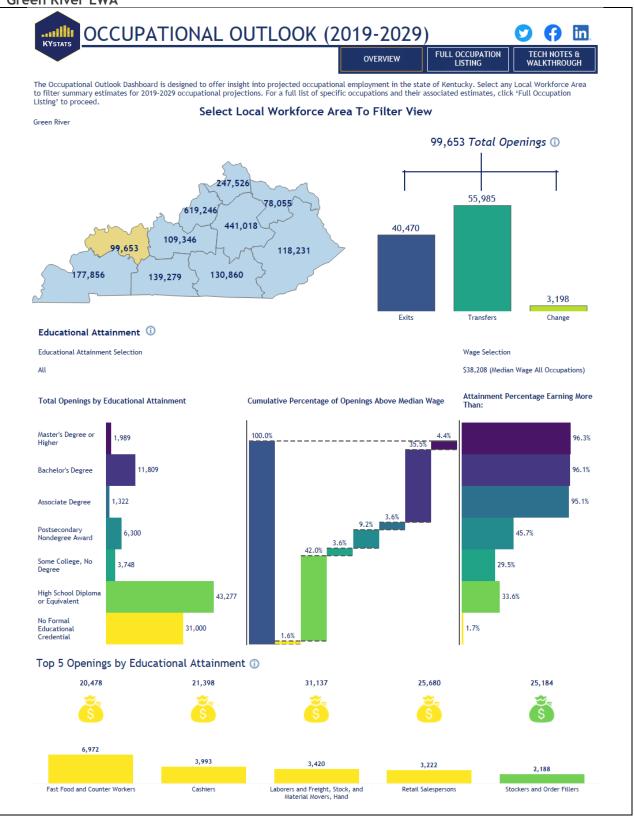


EKCEP LWA



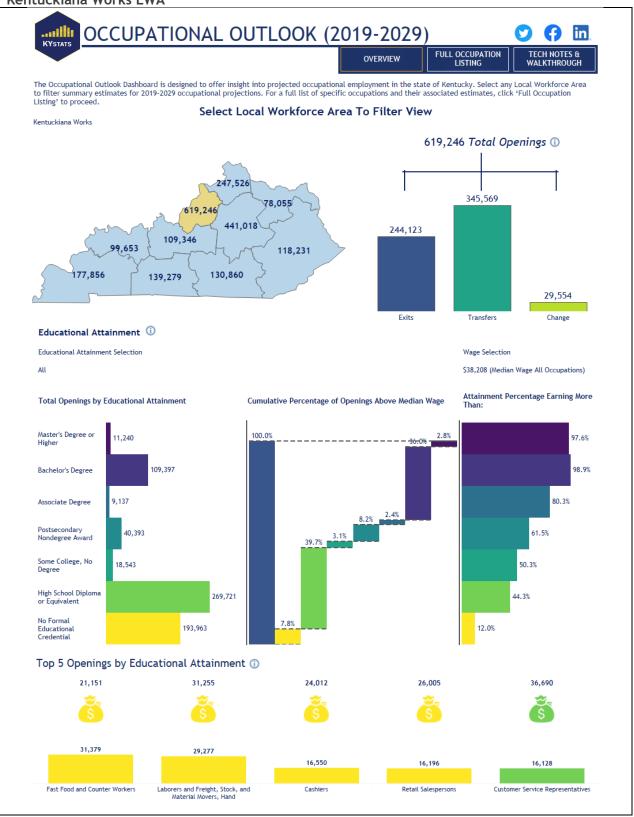


Green River LWA



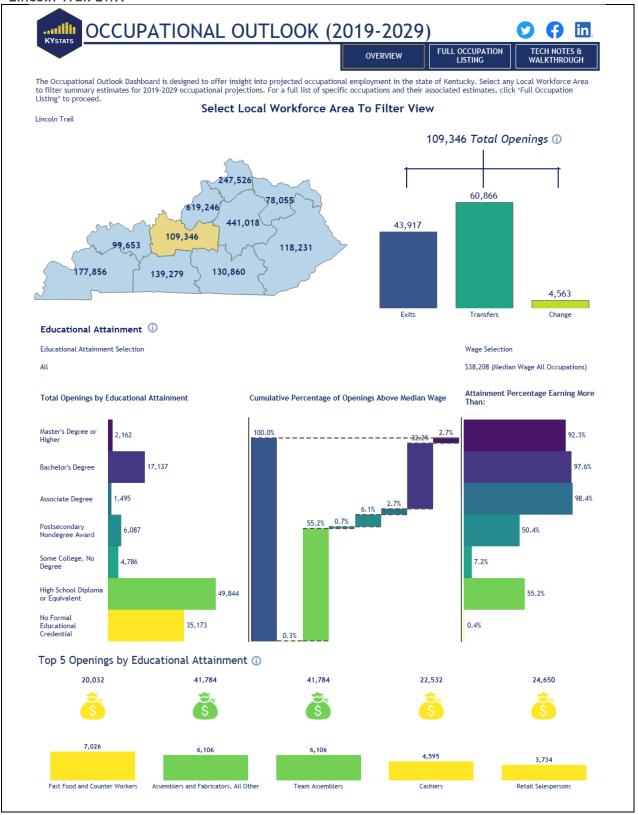


Kentuckiana Works LWA



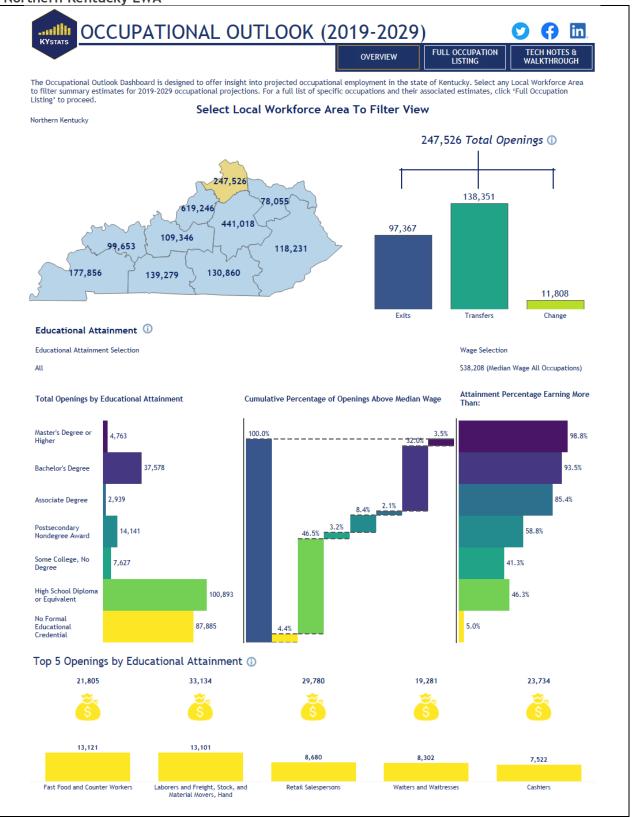


Lincoln Trail LWA



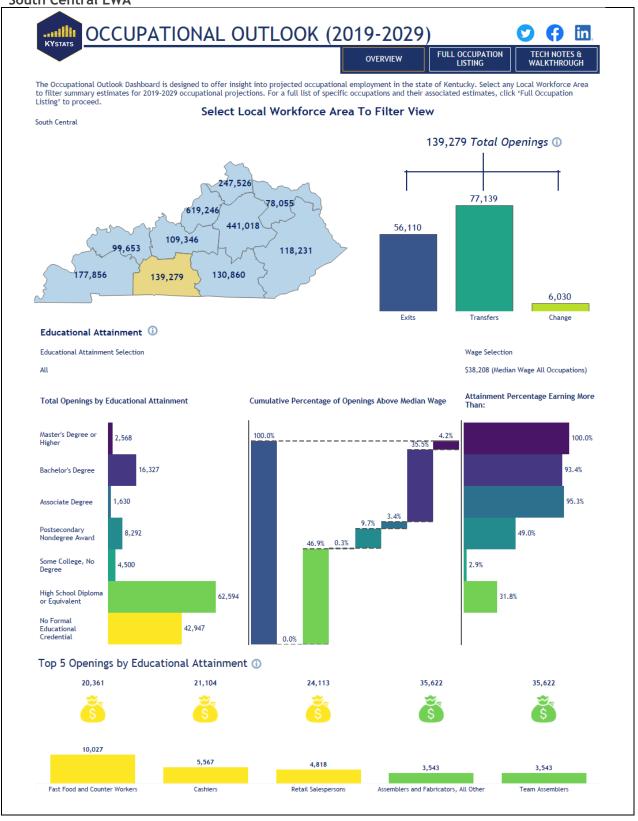


Northern Kentucky LWA



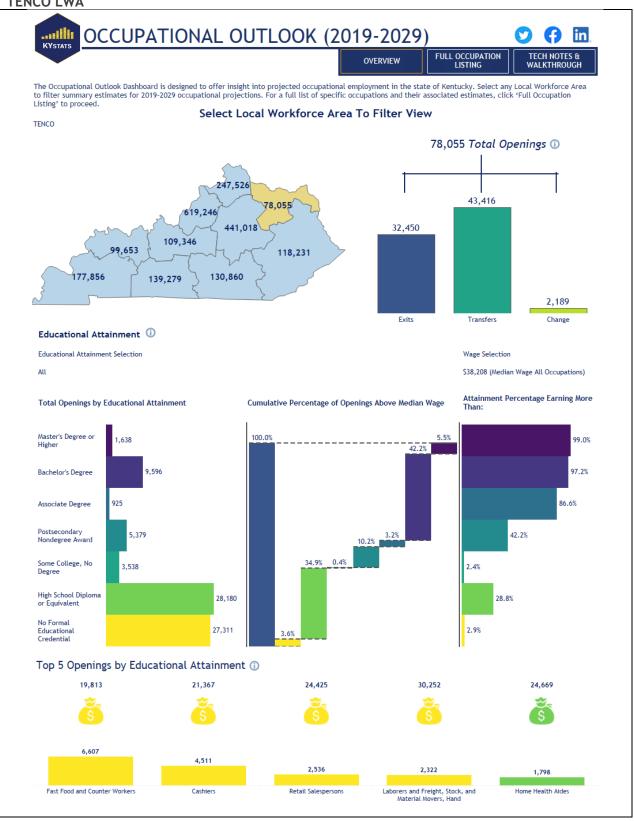


South Central LWA



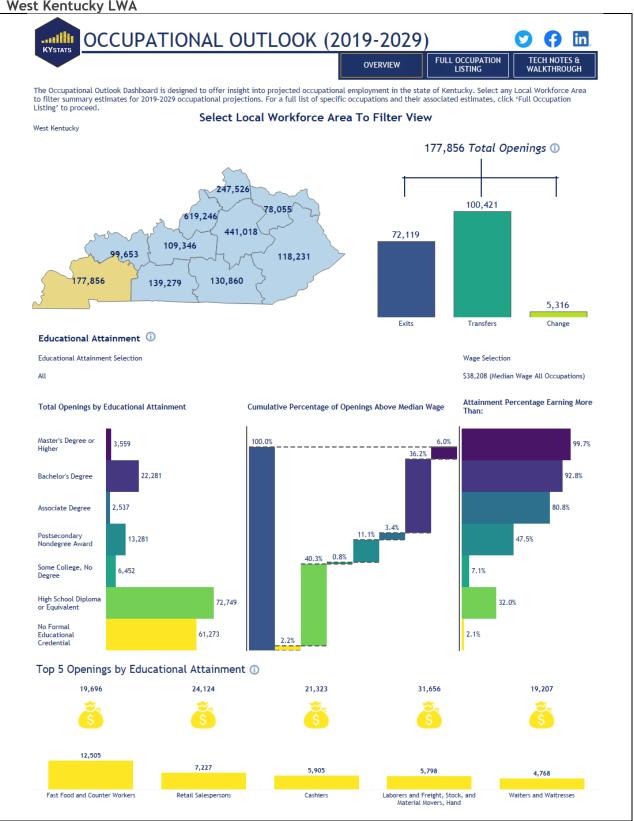


TENCO LWA





West Kentucky LWA



Source: KYSTATS, Labor Market Information Branch, "2019-2029 KY Occupational Outlook," (accessed July 2022)

