



December 2019 KENTUCKY LABOR FORCE UPDATE

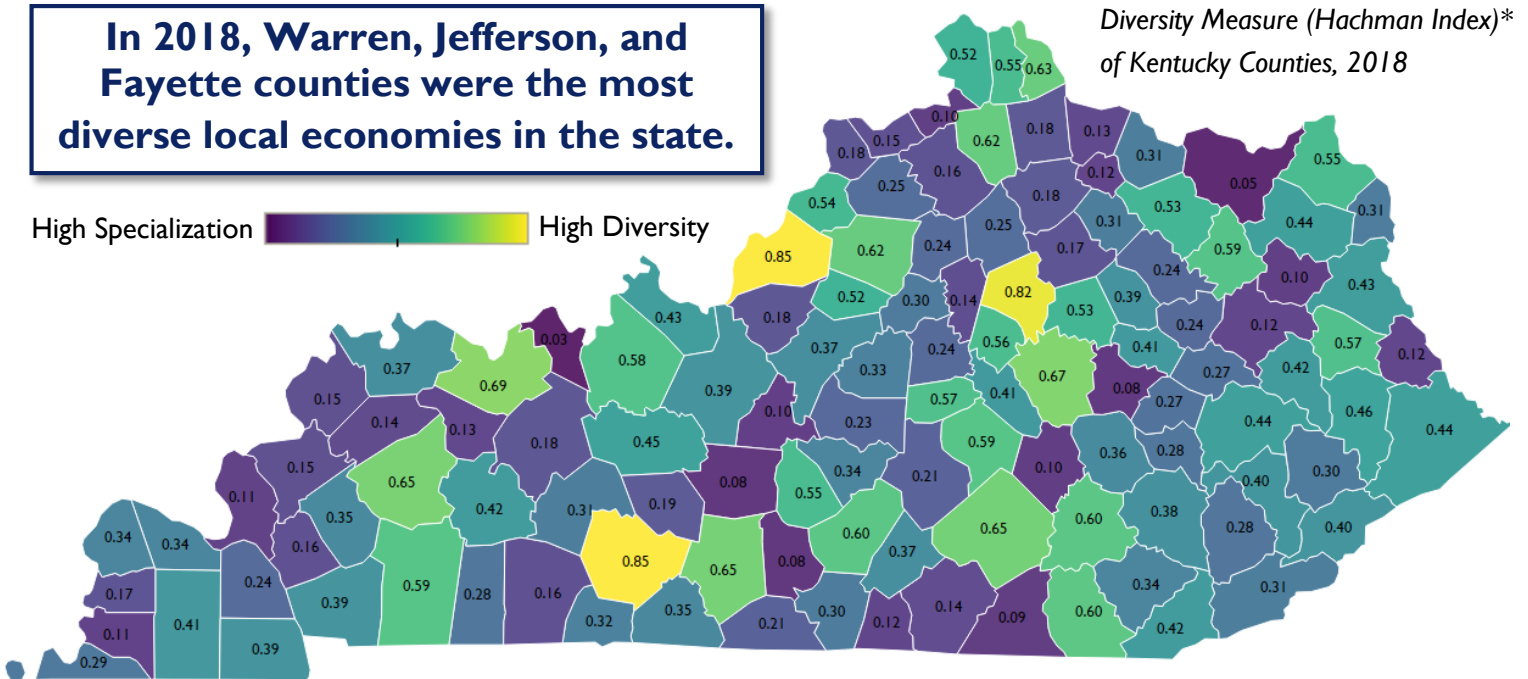
Economic Diversity and Specialization Among Kentucky Counties

For many economic and workforce development professionals, shaping a diverse economy while nourishing advantageous local specializations is a complicated balancing act. There is likely no ‘correct’ strategy- a substantial body of research suggests that a greater dispersion of employment among industries increases an economy’s stability (Dissart, 2003) and stimulates growth (Pede, 2013), while other research suggests that regional economic specialization can foster innovation via competition among firms (Porter, 1990), and may be associated with greater economic efficiency (Glaeser et al., 1992). The following analysis explores the level of economic diversity within Kentucky counties, as well as their unique economic specializations.

The Hachman Index, developed by Frank Hachman at the Bureau of Economic Research at the University of Utah, is a nationally recognized “measure of the economic diversity of a region based on how closely the composition of industries matches that of a larger and well-diversified reference region” (Benway, 2017). This analysis will utilize the Hachman Index, assigning a value to each county in Kentucky based on how closely their industry composition resembles that of the state as a whole. Index values range from zero (where the local economy does not resemble the state economy) to one (where the local economy perfectly resembles the state economy). Underlying data are at the 3-digit level of the North American Industrial Classification System (NAICS), and are obtained from Kentucky’s Quarterly Census of Employment and Wages (QCEW) program.

In 2018, Warren, Jefferson, and Fayette counties were the most diverse local economies in the state.

High Specialization  High Diversity



*Calculation of Hachman Index:
$$\left(\sum_i \frac{\text{county share of industry } i}{\text{state share of industry } i} \times (\text{county share of industry } i) \right)^{-1}$$

ALSO IN THIS ISSUE:

- ◆ Labor Force Estimates (LAUS) Oct. 2019
- ◆ Labor Force Estimates (CES) Oct. 2019
- ◆ Unemployment Ins. Claims Oct. 2019
- ◆ Fun Facts



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Kentucky Labor Force Update

A monthly publication of the
Kentucky Center for Statistics (KYSTATS)
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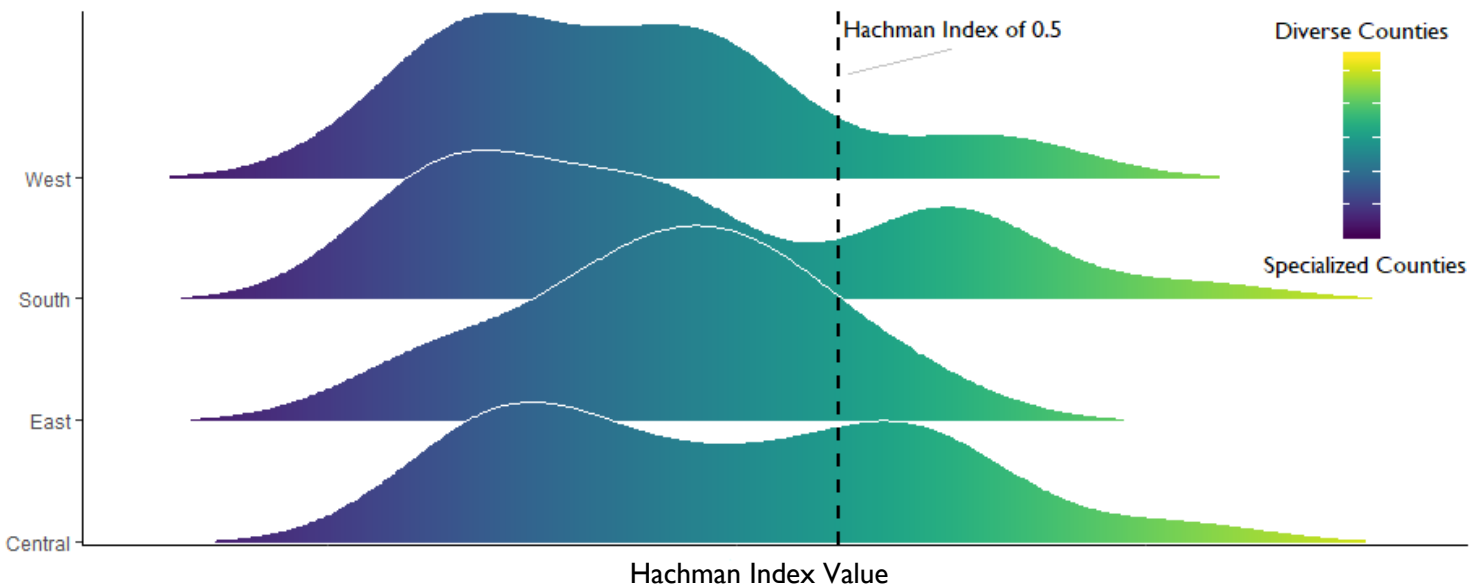
Kentucky Labor Force Update, Kentucky Center for Statistics (KYSTATS)



Economic Diversity and Specialization Among Kentucky Counties

Economic Diversity as Measured by the Hachman Index

Hachman Index Distribution of Kentucky Counties by Workforce Development Region, 2018



Jobs in many Kentucky counties are distributed among various industries in such a way as to bear a relatively strong resemblance to the state as a whole; 29 counties exhibited Hachman Index values greater than 0.5 in 2018. The remaining counties (shown to the left of the dotted line in the graph above) can be characterized as having some form of increased industry specialization. Of Kentucky's four Workforce Development Planning Regions (WDPRs), the Central and South regions are comprised of more diverse county economies with a Hachman Index value greater than 0.5 (38% and 30%, respectively) than the West and East (13% and 12%, respectively). The West region features the lowest median Hachman Index value (0.28), which reflects the presence of highly specialized economies in that area. The East region is the most homogenous, with 20 of its 33 counties exhibiting Hachman Index values between 0.25 and 0.45.

Highly diverse local economies are most common in the state's South and Central regions.

Kentucky's urban economies tend to be more diverse, while rural and micropolitan economies are typically more specialized.

Fifty-two percent of counties with Hachman Index values greater than 0.5 are located in metropolitan areas, compared to only 22 percent of counties with Hachman Index values lower than 0.5, indicating that Kentucky's urban economies tend to be more diverse, while rural and micropolitan economies are typically more specialized in some way.

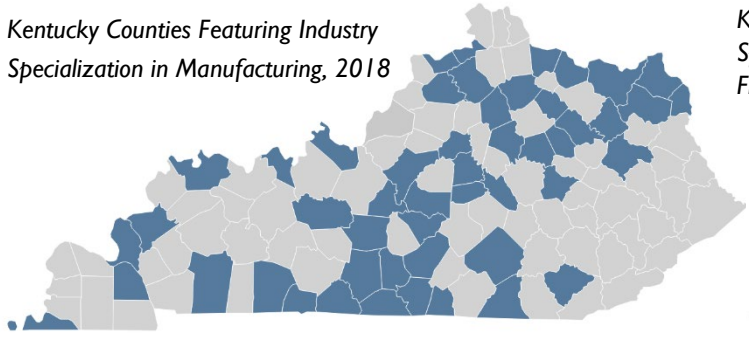


Economic Diversity and Specialization Among Kentucky Counties

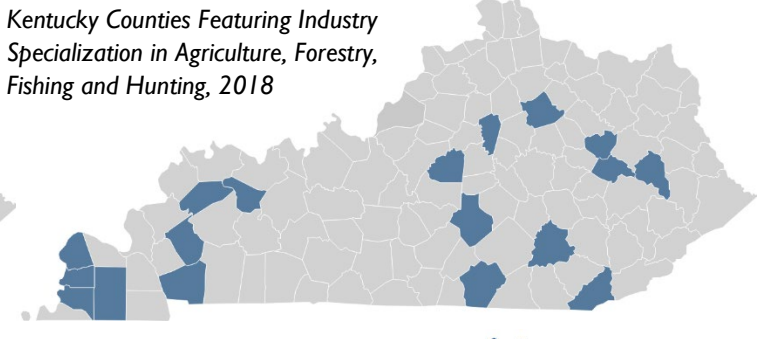
Economic Specialization as Measured by Location Quotients

In the course of producing the Hachman Index value for a given county, a location quotient is calculated for each of the county's active industries. A location quotient is a measure of an industry's employment concentration within a county, compared to its concentration in the state as a whole. The industry with the highest location quotient within a county can be characterized as that county's *strongest* economic specialization. At the 3-digit NAICS level, there are 24 of these unique specializations among all Kentucky counties. To give a broad overview of which areas of the state feature which kinds of specializations, the maps below indicate the larger NAICS category into which each county's specialization falls. A full list of specific counties, along with the industry exhibiting the highest location quotient in 2018, is provided in Appendix A on the next page.

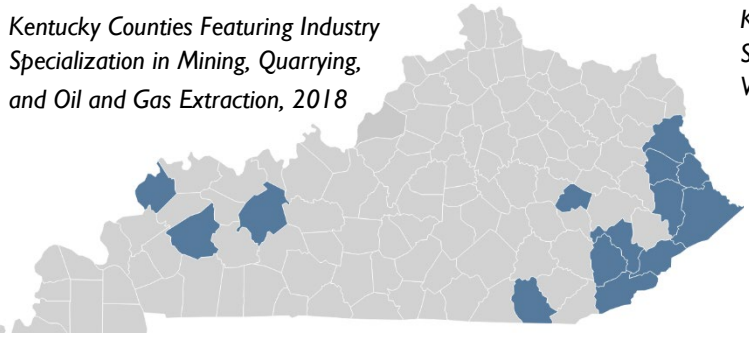
Some form of manufacturing is the most common industry specialization among Kentucky counties.



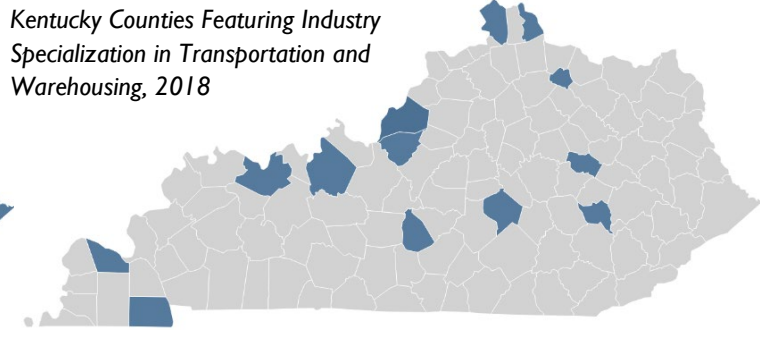
Kentucky Counties Featuring Industry Specialization in Manufacturing, 2018



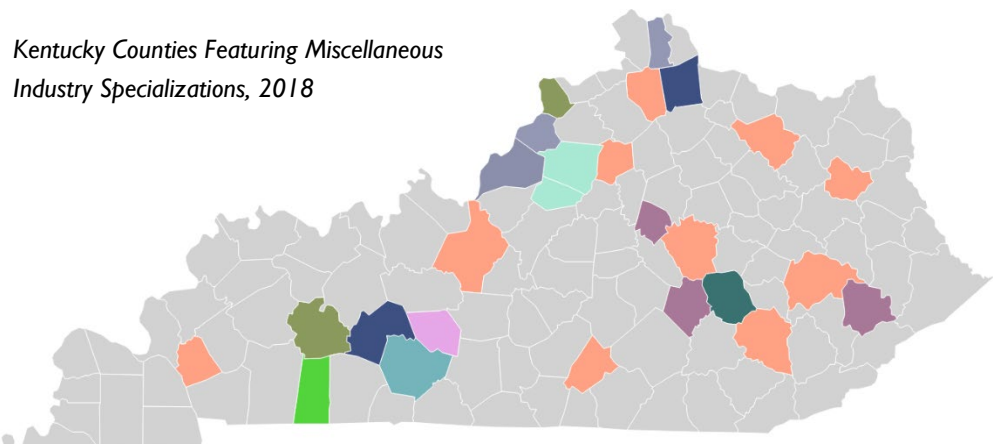
Kentucky Counties Featuring Industry Specialization in Agriculture, Forestry, Fishing and Hunting, 2018



Kentucky Counties Featuring Industry Specialization in Mining, Quarrying, and Oil and Gas Extraction, 2018



Kentucky Counties Featuring Industry Specialization in Transportation and Warehousing, 2018



Kentucky Counties Featuring Miscellaneous Industry Specializations, 2018

- Administrative and Waste Services
- Arts, Entertainment, and Recreation
- Finance and Insurance
- Information
- Management of Companies and Enterprises
- Public Administration
- Real Estate and Rental and Leasing
- Retail Trade
- Utilities
- Wholesale Trade



Economic Diversity and Specialization Among Kentucky Counties

Summary

The level of economic diversity among Kentucky counties varies substantially, and the metropolitan economies of the Central and South regions of the state rank among the most diverse. Rural and micropolitan counties more commonly have specialized economies, where one industry (or a small group of industries) holds a higher concentration of employment in the county than it does in the state as a whole. While some form of manufacturing is the strongest economic specialization in fifty counties (as measured by location quotients), there were as many as 24 unique industry specializations among Kentucky counties in 2018.

Citations

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Appendix A – Industry (3-digit NAICS code) With Highest Location Quotient by County, 2018

County	Industry	County	Industry
Anderson	Nonmetallic Mineral Product Manufacturing	Carlisle	Crop Production
Ballard	Fishing, Hunting and Trapping	Carroll	Fabricated Metal Product Manufacturing
Barren	Printing and Related Support Activities	Carter	Apparel Manufacturing
Bath	Food Manufacturing	Casey	Forestry and Logging
Bell	Forestry and Logging	Christian	Textile Mills
Boone	Air Transportation	Clark	Furniture and Related Product Manufacturing
Bourbon	Support Activities for Agriculture and Forestry	Clay	Justice, Public Order, and Safety Activities
Boyd	Petroleum and Coal Products Manufacturing	Clinton	Textile Product Mills
Boyle	Miscellaneous Manufacturing	Crittenden	Computer and Electronic Product Manufacturing
Bracken	Plastics and Rubber Products Manufacturing	Cumberland	Furniture and Related Product Manufacturing
Breathitt	Administration of Economic Programs	Daviess	Pipeline Transportation
Breckinridge	Pipeline Transportation	Edmonson	Museums, Historical Sites, and Similar Institutions
Bullitt	Warehousing and Storage	Elliott	Justice, Public Order, and Safety Activities
Butler	Waste Management and Remediation Services	Estill	Apparel Manufacturing
Caldwell	Forestry and Logging	Fayette	Computer and Electronic Product Manufacturing
Calloway	Truck Transportation	Fleming	Administration of Economic Programs
Campbell	Scenic and Sightseeing Transportation	Floyd	Oil and Gas Extraction



Economic Diversity and Specialization Among Kentucky Counties

Appendix A (cont'd) – Industry (3-digit NAICS code) With Highest Location Quotient by County, 2018

County	Industry	County	Industry
Franklin	Administration of Human Resource Programs	McCracken	Water Transportation
Fulton	Paper Manufacturing	McCreary	Textile Product Mills
Gallatin	Primary Metal Manufacturing	McLean	Animal Production and Aquaculture
Garrard	Nonmetallic Mineral Product Manufacturing	Meade	Chemical Manufacturing
Grant	Administration of Housing Programs, Urban Planning, and Community Development	Menifee	Forestry and Logging
Graves	Forestry and Logging	Mercer	Nonmetallic Mineral Product Manufacturing
Grayson	Furniture and Related Product Manufacturing	Metcalfe	Apparel Manufacturing
Green	Transit and Ground Passenger Transportation	Monroe	Wood Product Manufacturing
Greenup	Petroleum and Coal Products Manufacturing	Montgomery	Furniture and Related Product Manufacturing
Hancock	Primary Metal Manufacturing	Morgan	Miscellaneous Manufacturing
Hardin	National Security and International Affairs	Muhlenberg	Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)
Harlan	Mining (except Oil and Gas)	Nelson	Beverage and Tobacco Product Manufacturing
Harrison	Paper Manufacturing	Nicholas	Textile Product Mills
Hart	Textile Product Mills	Ohio	Support Activities for Mining
Henderson	Primary Metal Manufacturing	Oldham	Insurance Carriers and Related Activities
Henry	Primary Metal Manufacturing	Owen	Computer and Electronic Product Manufacturing
Hickman	Crop Production	Owsley	Transit and Ground Passenger Transportation
Hopkins	Support Activities for Mining	Pendleton	Waste Management and Remediation Services
Jackson	Utilities	Perry	Mining (except Oil and Gas)
Jefferson	Monetary Authorities-Central Bank	Pike	Oil and Gas Extraction
Jessamine	Motion Picture and Sound Recording Industries	Powell	Pipeline Transportation
Johnson	Support Activities for Mining	Pulaski	Wood Product Manufacturing
Kenton	Securities, Commodity Contracts, and Other Financial Investments and Related Activities	Robertson	Pipeline Transportation
Knott	Telecommunications	Rockcastle	Data Processing, Hosting, and Related Services
Knox	Nonmetallic Mineral Product Manufacturing	Rowan	Wood Product Manufacturing
LaRue	Apparel Manufacturing	Russell	Administration of Housing Programs, Urban Planning, and Community Development
Laurel	Forestry and Logging	Scott	Transportation Equipment Manufacturing
Lawrence	Oil and Gas Extraction	Shelby	Clothing and Clothing Accessories Stores
Lee	Oil and Gas Extraction	Simpson	Leather and Allied Product Manufacturing
Leslie	Mining (except Oil and Gas)	Spencer	Nonstore Retailers
Letcher	Mining (except Oil and Gas)	Taylor	Apparel Manufacturing
Lewis	Textile Mills	Todd	Wholesale Electronic Markets and Agents and Brokers
Lincoln	Pipeline Transportation	Trigg	Crop Production
Livingston	Leather and Allied Product Manufacturing	Trimble	Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)
Logan	Leather and Allied Product Manufacturing	Union	Mining (except Oil and Gas)
Lyon	Justice, Public Order, and Safety Activities	Warren	Management of Companies and Enterprises
Madison	National Security and International Affairs	Washington	Crop Production
Magoffin	Forestry and Logging	Wayne	Forestry and Logging
Marion	Plastics and Rubber Products Manufacturing	Webster	Fishing, Hunting and Trapping
Marshall	Chemical Manufacturing	Whitley	Support Activities for Mining
Martin	Oil and Gas Extraction	Wolfe	Forestry and Logging
Mason	Computer and Electronic Product Manufacturing	Woodford	Support Activities for Agriculture and Forestry



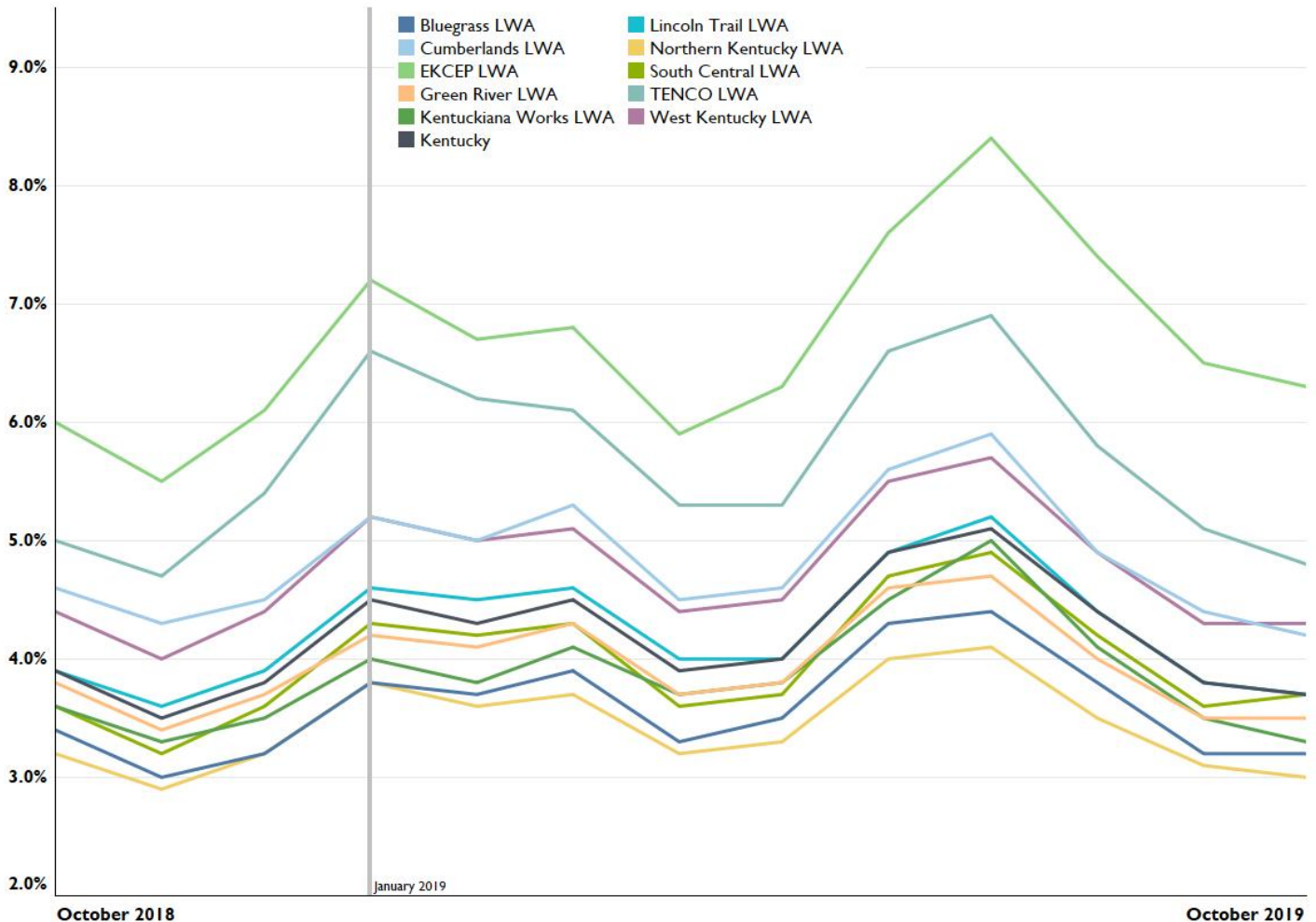
October 2019 Labor Force Estimates (LAUS)

Source: KYSTATS, Local Area Unemployment Statistics (LAUS)*

	Oct. 2019	Sept. 2019	Oct. 2018	OVER-the-MONTH		OVER-the-YEAR	
				Change	Rate	Change	Rate
Civilian Labor Force	2,077,025	2,073,254	2,062,404	3,771	0.2%	14,621	0.7%
Employment	1,986,977	1,982,721	1,973,477	4,256	0.2%	13,500	0.7%
Unemployment	90,048	90,533	88,927	-485	-0.5%	1,121	1.3%
Unemployment Rate	4.3%	4.4%	4.3%	-0.1%	-	0.0%	-
U.S. Unemployment Rate	3.6%	3.5%	3.8%	0.1%	-	-0.2%	-

* Estimates shown above are seasonally adjusted. October 2019 estimates are preliminary and subject to revision.

Unemployment Rate by Local Workforce Area and State



* Estimates shown in the chart above are not seasonally adjusted. October 2019 estimates are preliminary and subject to revision.



October 2019 Labor Force Estimates (CES)

Source: KYSTATS, Current Employment Statistics (CES)*

	Oct. 2019	Sept. 2019	Oct. 2018	OVER-the-MONTH		OVER-the-YEAR	
				Change	Rate	Change	Rate
Total Nonfarm Employment	1,964,500	1,961,500	1,933,400	3,000	0.2%	31,100	1.6%
Private Sector Employment	1,652,800	1,649,500	1,619,300	3,300	0.2%	33,500	2.1%
Goods Producing Industries	343,200	345,200	340,900	-2,000	-0.6%	2,300	0.7%
Mining and Logging	8,600	9,100	10,400	-500	-5.5%	-1,800	-17.3%
Construction	79,700	79,200	78,300	500	0.6%	1,400	1.8%
Manufacturing	254,900	256,900	252,200	-2,000	-0.8%	2,700	1.1%
Durable Goods	163,900	166,300	164,400	-2,400	-1.4%	-500	-0.3%
Non-Durable Goods	91,000	90,600	87,800	400	0.4%	3,200	3.6%
Private Service Providing Industries	1,309,600	1,304,300	1,278,400	5,300	0.4%	31,200	2.4%
Trade, Transportation, & Utilities	411,600	411,200	403,100	400	0.1%	8,500	2.1%
Wholesale Trade	75,400	76,800	75,900	-1,400	-1.8%	-500	-0.7%
Retail Trade	216,200	215,200	212,600	1,000	0.5%	3,600	1.7%
Transp, Warehousing, & Util.	120,000	119,200	114,600	800	0.7%	5,400	4.7%
Information	21,700	21,800	21,800	-100	-0.5%	-100	-0.5%
Financial Activities	95,500	95,300	94,200	200	0.2%	1,300	1.4%
Finance and Insurance	74,700	74,700	73,800	0	0.0%	900	1.2%
Real Estate, Rental & Leasing	20,800	20,600	20,400	200	1.0%	400	2.0%
Professional and Business Services	219,400	217,700	215,500	1,700	0.8%	3,900	1.8%
Prof, Scientific, & Tech Services	77,900	77,700	76,700	200	0.3%	1,200	1.6%
Management of Companies	21,000	21,100	20,700	-100	-0.5%	300	1.4%
Admin & Support & Waste Mgmt	120,500	118,900	118,100	1,600	1.3%	2,400	2.0%
Educational & Health Services	291,600	290,500	280,500	1,100	0.4%	11,100	4.0%
Educational Services	31,000	30,700	30,300	300	1.0%	700	2.3%
Health Care & Social Assistance	260,600	259,800	250,200	800	0.3%	10,400	4.2%
Leisure and Hospitality	202,600	201,000	197,600	1,600	0.8%	5,000	2.5%
Arts, Entertainment & Recreation	23,400	23,000	22,700	400	1.7%	700	3.1%
Accommodation & Food Services	179,200	178,000	174,900	1,200	0.7%	4,300	2.5%
Other Services	67,200	66,800	65,700	400	0.6%	1,500	2.3%
Government	311,700	312,000	314,100	-300	-0.1%	-2,400	-0.8%
Federal	35,800	36,000	36,500	-200	-0.6%	-700	-1.9%
State	92,600	92,600	94,300	0	0.0%	-1,700	-1.8%
Local	183,300	183,400	183,300	-100	-0.1%	0	0.0%

* Data are seasonally adjusted. October 2019 data are preliminary and subject to revision.



Unemployment Insurance Claims October 2019 (Kentucky, Statewide)

Source: U.S. Dept. of Labor, Employment and Training Administration

Month	Initial Claims	First Payments	Weeks Claimed	Weeks Compensated	Average Weekly Benefit	Benefits Paid	Final Payments
10/31/2018	8,340	2,817	70,942	62,601	\$346.01	\$21,718,218	1,308
11/30/2018	11,629	2,553	60,459	53,298	\$347.80	\$18,585,342	982
12/31/2018	16,320	3,393	66,452	57,885	\$343.45	\$19,967,923	1,061
1/31/2019	17,896	6,795	93,400	78,628	\$345.70	\$27,310,045	1,257
2/28/2019	13,347	4,466	87,716	76,053	\$350.53	\$26,770,130	1,103
3/31/2019	8,327	2,919	79,384	71,924	\$345.00	\$24,914,450	1,100
4/30/2019	9,109	2,948	78,957	68,554	\$356.26	\$24,493,113	1,245
5/31/2019	9,446	2,902	63,719	56,412	\$357.08	\$20,216,805	1,059
6/30/2019	10,274	2,890	63,623	56,359	\$347.79	\$19,710,185	994
7/31/2019	16,487	4,133	88,606	74,889	\$350.17	\$26,372,779	1,367
8/31/2019	8,806	3,265	67,616	60,130	\$360.12	\$21,767,816	1,194
9/30/2019	9,038	2,499	63,961	62,496	\$369.41	\$23,182,837	1,211
10/31/2019	10,017	3,740	66,451	60,063	\$381.19	\$22,921,703	1,173

Data queried from <https://oui.doleta.gov/> on 11/21/2019.



Fun Facts: The True Cost of the 12 Days of Christmas



If, on the first day of Christmas, your true love were to give you a partridge in a pear tree, how much would it cost? Every year the PNC Financial Services Group, Inc. estimates the cost of the 12 gifts in the carol “The Twelve Days of Christmas” (<https://www.pncchristmaspriceindex.com/>). In 2019, the total cost of the 12 gifts is estimated at \$38,994, a slight increase from last year (\$38,095). We wondered how long it would take Kentucky workers to earn enough to afford such a proclamation of love. The gift list includes:

- 🎁 A partridge in a pear tree
- 🎁 Five gold rings
- 🎁 Nine ladies dancing
- 🎁 Two turtle doves
- 🎁 Six geese a-laying
- 🎁 Ten lords a-leaping
- 🎁 Three French hens
- 🎁 Seven swans a-swimming
- 🎁 Eleven pipers piping
- 🎁 Four calling birds
- 🎁 Eight maids a-milking
- 🎁 Twelve drummers drumming

Using data from Occupational Employment Statistics (OES), Kentuckians make an average annual wage of \$44,185. It would take nearly 11 months to earn enough to pay for these lavish gifts. And this does not factor in the costs associated with caring for all of these items such as an arborist for the pear tree, an ornithologist for all of the birds, farm workers for the assumed cows or goats to be milked, a veterinarian which will inevitably be needed, a landscaper to tend to the lake for the swans, as well as an agent for the lords, pipers and drummers. Estimated annual wages are shown in the table below using OES data.

Standard Occupational Classification (SOC) Title	KY Average Annual Wage*
Agents and Business Managers of Artists, Performers, and Athletes (13-1011)	\$66,718
Animal Caretaker (39-2021)	\$23,459
Entertainers and Performers, Sports and Related Workers, All Other (27-2099)	\$36,379
Farmworkers, Farm, Ranch and Aquacultural Animals (45-2093)	\$27,581
Forester (19-1032)	\$48,510
Landscaping and Groundskeeping Worker (37-3011)	\$28,909
Musicians and Singers (27-2042)	\$46,010**
Veterinarian (29-1131)	\$87,660

* Assumes a 40 hour work week.

** Data for 2019 and 2018 not available, so 2017 value used.



KYSTATS in the News



KYSTATS moved to the 5th floor of the new Mayo-Underwood building in downtown Frankfort located at 500 Mero Street. The Mayo-Underwood Building houses approximately 1,500 workers from the Education and Workforce Development, Labor, Public Protection and Tourism, Arts and Heritage cabinets as well as the Kentucky Communications Network Authority, State Risk and some employees from the Commonwealth Office of Technology.



The [Kentucky Workforce Dashboard](#) has recently been updated with current data - including newly added Apprenticeship data!



In December, the [Kentucky Future Skills Report](#) will be updated with the newest data on earned educational credentials and five-year occupational demand projections.



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