

# Kentucky Occupational Outlook to 2020

*A STATEWIDE ANALYSIS OF WAGES, EMPLOYMENT, GROWTH AND TRAINING*



**Education and Workforce Development Cabinet**

Department of Workforce Investment

Office of Employment and Training



# **KENTUCKY OCCUPATIONAL OUTLOOK TO 2020**

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## Preface

Which jobs will be in demand in Kentucky from now until 2020? Which occupations will provide the most job openings each year through 2020? Which occupations are likely to grow the fastest between 2010 and 2020? Which are likely to decline? This report offers some insight into these oft-asked questions. Students, job seekers, counselors, economic developers and market analysts should find this publication helpful.

The labor market information in this publication is based on a wide spectrum of statistics collected and developed by the staff of the Research and Statistics (R&S) Branch in the Kentucky Office of Employment and Training (OET). The Labor Market Information (LMI) Section within the R&S Branch also projected and estimated the numbers which serve as the base for this publication.

These estimates reflect only the predicted *demand* for labor from 2010 through 2020. The *supply*, or the number of educated/trained workers to fill future job openings, is beyond the scope of this report.

Funding was provided by the Employment and Training Administration (ETA), United States Department of Labor (DOL). The national industry and occupational projections developed by the Bureau of Labor Statistics (BLS), DOL, were used to project Kentucky's industries and occupations. The BLS, the Department of Commerce, and Bureau of Economic Analysis provided additional statistics necessary to complete the projection process. The Utah Department of Workforce Services developed the software used to prepare the long-term occupational projections. Special thanks go to the Kentucky employers who completed questionnaires which provided the necessary employment information for this publication.

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## Highlights

The Kentucky economy is expected to average about 69,300 job openings annually between 2010 and 2020.

Between 2010 and 2020, total employment is projected to increase by 235,430 jobs, or 12.4 percent. From 2000 to 2010, total employment decreased by 79,300 jobs, or 4.3 percent. However, the economic recession that began in 2008 significantly impacted overall employment growth during that span; from 1997-2007, total employment grew by 134,300 jobs, or 7.8 percent.

Slightly less than a quarter (24.7 percent) of 2020 projected employment will be in two of the largest occupational groups: Office and Administrative Support Occupations and Sales and Related Occupations.

While Office and Administrative Support Occupations and Sales and Related Occupations should be the two largest groups in terms of total employment in 2020, both occupational categories are expected to grow at a slower rate than the average for all occupations – 10.1 percent and 11.5 percent, respectively.

Personal Care and Service Occupations are projected to be the fastest growing occupational group with a 25.3 percent increase in employment; close behind are Healthcare Support Occupations at 25.1 percent and Healthcare Practitioners and Technical Occupations at 25.0 percent.

At 25.3 percent, Personal Care and Service Occupations are projected to grow more than twice as fast as the average rate for all occupations (12.4 percent).

Healthcare-related occupations are expected to grow at such a high rate primarily because of Kentucky's aging population.

Changes in technology, work processes, automation, the demand for products/services, and outsourcing are among the major causes of employment growth and decline within occupations.

## Highlights (continued)

Occupations requiring at least some college or higher are projected to increase by 16.7 percent, while those requiring only a high school diploma or less will grow by only 10.8 percent.

Obtaining a postsecondary degree offers more job opportunities, increased job security and greater potential for financial gain.

Occupations that require a doctoral or professional degree are expected to grow by 20.9 percent as a group between 2010 and 2020, the fastest growth rate among all groups. The occupations in this group are primarily comprised of postsecondary teachers and health diagnosing and treating practitioners.

Occupations that require a master's degree are expected to grow by nearly 20 percent between 2010 and 2020, which is much faster than the average for all education levels (12.4%).

Occupations generally requiring a bachelor's degree will provide the largest number of annual job openings (8,910) for those seeking postsecondary education.

Occupations requiring a high school diploma or equivalent provide the best opportunity for persons not considering college with over 29,560 annual job openings estimated through 2020. This group is projected to have nearly 1.5 times as many annual job openings as those occupations requiring less than a high school diploma or equivalent (20,070). Wages for occupations in this category are significantly lower than those in occupations that require at least some postsecondary education, however.

# A User's Guide to Occupational Outlook Statistics

*When looking at an occupation, what key outlook data should you review?*

**Annual Job Openings** (2010-2020) The annual openings estimate the likely annual demand for workers in each occupation.

**Job Growth Rate** (2010-2020) The job growth rate shows the percentage each occupation is likely to grow or decline between 2010 and 2020.

*What creates job openings?*

- 1) **Employment growth** (new jobs).
- 2) **Employment separations** (job vacancies created by persons leaving an occupation). The **employment separation number** for an occupation is the rate at which workers leave that occupation.

*What creates employment change?*

- 1) **Industry growth or decline** has the greatest influence on employment change. Industry growth occurs when the demand for goods and services rises and, in turn, the demand for workers to produce those goods and services also rises.
- 2) **Technological change** can raise the demand for some skills while eliminating the need for other skills.
- 3) **New ways of doing business** such as self-service, 24-hour operations, etc., can affect employment change.

*Do workers leave some occupations more frequently than other occupations?*

**Yes.** Every occupation has a different employment separation number. Occupations requiring more education and training have a higher percentage of full-time workers and lower separation numbers. Occupations requiring less education tend to have higher separation numbers.

*What factors affect the number of job openings for an occupation?*

**The overall size of the occupation** - how many workers are employed now?

**The occupation's separation number** - how many job vacancies are created from workers leaving the occupation?

**The occupation's rate of change** - how fast is the occupation growing or declining?

*What factors are most important?*

The **overall employment** size and the number of separations are more important than the percent change in affecting the number of job openings.

*What is the best way to compare one occupation with another?*

Look at the total **Average Annual Job Openings**, not just openings resulting from growth. A large number of openings mean it should be relatively easy to find a job in that occupation. Look at the **Job Growth Rate** (2010-2020) expressed as a percentage. A high percentage increase in employment means there should be a greater chance for advancement because demand is likely to remain strong for some time.

## Kentucky Occupational Outlook to 2020

The future is never certain, but it can be very useful to look ahead and try to determine the likely employment outlook for the Kentucky economy through the year 2020.

*The Kentucky economy should provide over 69,000 job openings annually.*

The Kentucky economy is expected to add over 244,000 new jobs from 2010 through 2020. An additional 448,000 job vacancies will likely occur as workers leave or separate from various occupations. Such job vacancies become available from retirements, promotions, or transfers within occupations. This means that the Kentucky economy should generate over 69,000 job openings per year through 2020.

*Over one-third of new jobs created between 2010 and 2020 will be in one of three very large occupational groups.*

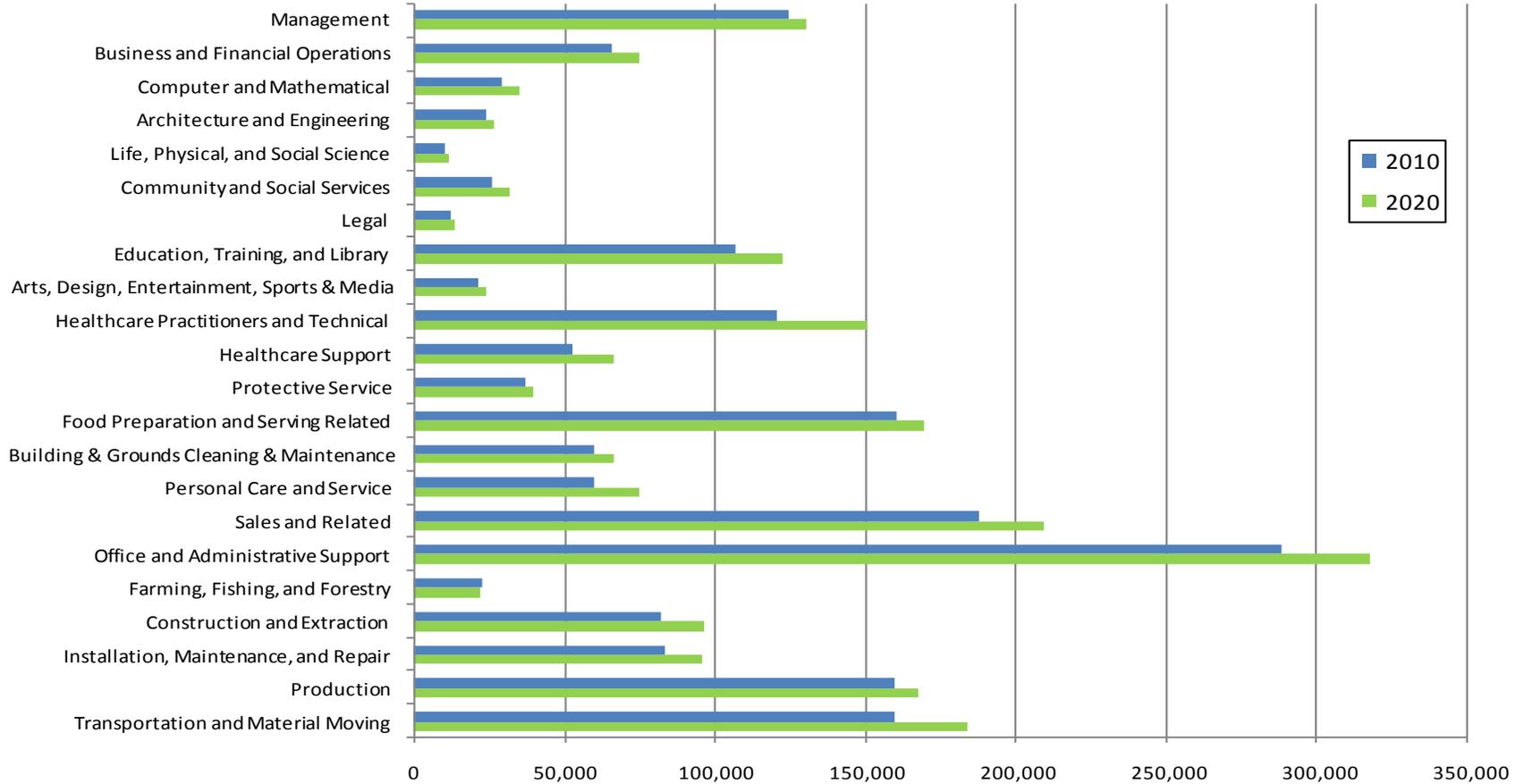
Employment in three major occupational groups — Healthcare Practitioners and Technical Occupations, Office and Administrative Support Occupations and Transportation and Material Moving Occupations — will grow 24.9, 10.1, and 15.0 percent respectively between 2010 and 2020, and will add the most *new* jobs over the ten-year period. (See page 6, Table 1.) These three major groups are expected to provide about 35.0 percent of total job growth from 2010 to 2020.

*Personal Care and Service Occupations should be the fastest growing of all occupational groups.*

Personal Care and Service Occupations are projected to grow at a very fast rate — 25.3 percent as a group between 2010 and 2020 — over twice the average rate of growth for all occupations. A significant portion of the growth in this category will be among Personal and Home Care Aides, which are projected to grow by almost 68 percent.

*Only two occupational groups are projected to provide more openings from growth than replacements.*

Only two of the 22 major occupational groups --- Healthcare Practitioners and Technical Occupations and Healthcare Support Occupations --- are expected to generate more job openings from growth than from replacements.

**CHART 1****Kentucky Employment by Major Occupational Category**

***Only one of the 22 major occupational groups is projected to experience a decline in employment.***

While employment in some individual occupations may decline, only Farming, Fishing, and Forestry Occupations are expected to decline as a group, from 22,960 in 2010 to 22,130 in 2020.

**Two large occupational groups are expected to account for over 25 percent of projected growth through 2020.**

Healthcare Practitioners and Technical Occupations and Office and Administrative Support Occupations are expected to generate a combined 60,000 new jobs through 2020.

Table 1, below, shows projected employment and average annual job openings by major occupational category.

<b>TABLE 1: Employment and Average Annual Job Openings by Occupational Category, 2010-2020</b>									
Occupation		Employment				Change		Total Average Annual Job Openings by Occupation Category	
		Number		Percent of Total Employment		2010-2020		2010-2020	
Category	Code	2010	2020	2010	2020	Number	Percent	Number*	Percent of Total
Total, All Occupations		1,895,230	2,130,660	100.00	100.00	235,430	12.42	69,310	100.00
Management Occupations	11	124,240	130,540	6.56	6.13	6,300	5.07	3,440	4.96
Business and Financial Operations Occupations	13	65,810	75,160	3.47	3.53	9,350	14.21	2,270	3.28
Computer and Mathematical Occupations	15	29,590	35,090	1.56	1.65	5,500	18.59	1,110	1.60
Architecture and Engineering Occupations	17	24,060	26,590	1.27	1.25	2,530	10.52	800	1.15
Life, Physical, and Social Science Occupations	19	10,360	11,930	0.55	0.56	1,570	15.15	470	0.68
Community and Social Services Occupations	21	26,330	31,860	1.39	1.50	5,530	21.00	1,140	1.64
Legal Occupations	23	12,340	13,570	0.65	0.64	1,230	9.97	340	0.49
Education, Training, and Library Occupations	25	106,660	122,210	5.63	5.74	15,550	14.58	3,940	5.68
Arts, Design, Entertainment, Sports & Media Occs.	27	21,190	23,920	1.12	1.12	2,730	12.88	850	1.23
Healthcare Practitioners and Technical Occs.	29	120,700	150,800	6.37	7.08	30,100	24.94	5,410	7.81
Healthcare Support Occupations	31	53,080	66,390	2.80	3.12	13,310	25.08	2,090	3.02
Protective Service Occupations	33	36,850	40,040	1.94	1.88	3,190	8.66	1,240	1.79
Food Preparation and Serving Related Occs.	35	160,210	169,500	8.45	7.96	9,290	5.80	6,360	9.18
Building & Grounds Cleaning & Maintenance Occs.	37	60,030	66,210	3.17	3.11	6,180	10.29	1,690	2.44
Personal Care and Service Occupations	39	59,700	74,830	3.15	3.51	15,130	25.34	3,070	4.43
Sales and Related Occupations	41	187,870	209,490	9.91	9.83	21,620	11.51	7,910	11.41
Office and Administrative Support Occupations	43	288,300	317,310	15.21	14.89	29,010	10.06	9,540	13.76
Farming, Fishing, and Forestry Occupations	45	22,960	22,130	1.21	1.04	-830	-3.61	690	1.00
Construction and Extraction Occupations	47	81,900	96,230	4.32	4.52	14,330	17.50	3,230	4.66
Installation, Maintenance, and Repair Occupations	49	83,480	95,650	4.40	4.49	12,170	14.58	3,090	4.46
Production Occupations	51	159,740	167,380	8.43	7.86	7,640	4.78	4,130	5.96
Transportation and Material Moving Occupations	53	159,830	183,850	8.43	8.63	24,020	15.03	6,500	9.38

\* Includes growth (new jobs) plus separations (replacements).

## Educational Attainment

This section of the report groups Kentucky occupations by levels of educational attainment typically needed to enter that occupation. The assignments for the required education for each occupation were made by the Bureau of Labor Statistics.

<b>TABLE 2: Employment and Average Annual Job Openings by Educational Attainment Categories, 2010-2020</b>									
Educational Attainment		Employment				Change		Total Average Annual Job Openings	
		Number		Distribution		2010-2020		2010-2020	
Category	Code	2010	2020	2010	2020	Number	Percent	Number	Percent of Total
Total, All Occupations		1,895,230	2,130,660	100.0%	100.0%	235,430	12.4%	69,310	100.0%
Doctoral or Professional Degree	1	44,460	53,760	2.3%	2.5%	9,300	20.9%	1,720	2.5%
Master's Degree	2	26,650	31,910	1.4%	1.5%	5,260	19.7%	1,130	1.6%
Bachelor's Degree	3	235,080	269,790	12.4%	12.7%	34,710	14.8%	8,910	12.9%
Associate's Degree	4	116,240	137,080	6.1%	6.4%	20,840	17.9%	4,250	6.1%
Postsecondary Non-Degree Award	5	94,640	110,510	5.0%	5.2%	15,870	16.8%	3,390	4.9%
Some College, No Degree	6	10,740	12,910	0.6%	0.6%	2,170	20.2%	550	0.8%
High School Diploma or Equivalent	7	868,270	963,790	45.8%	45.2%	95,520	11.0%	29,290	42.3%
Less than High School	8	499,150	550,910	26.3%	25.9%	51,760	10.4%	20,070	29.0%

### ***Occupations requiring more education are increasing in share of total employment.***

Occupations requiring at least some college accounted for 27.8 percent of all Kentucky employment in 2010. This share increased from 27.5 percent in 2008 and is projected to increase to 28.9 percent by 2020. Those occupations requiring only a high school diploma or equivalent or less than high school are expected to account for a smaller percentage of total employment in 2020 than they did in 2010, indicating a shift toward occupations requiring an increasing amount of education.

## The Value of Education

Educational attainment is one of the most critical factors in gaining employment in a chosen field. While there are many non-monetary reasons for selecting a career, higher education usually leads to higher compensation. In fact, the value of education has increased in the last 20 years and will continue to do so.

***There are significant payoffs for attending postsecondary school.***

Table 3, below, shows the median wage by educational attainment in Kentucky for 2010. The smallest training category, which consists of all degrees higher than a bachelor's degree, earns by far the most on average. Occupations that generally require a bachelor's degree earn markedly less than those requiring a doctoral, professional, or master's degree, but they still earn a great deal more on average than those occupations that normally require an associate's degree, a postsecondary non-degree award, or some college, no degree.

The bulk of Kentucky's workforce continues to reside in those occupations requiring either a high school diploma or equivalent or less than high school. These categories, when combined, account for over 71 percent of the state's total employment. With technology expanding throughout the workforce, many of these occupations will require additional education in the future.

<b>TABLE 3: Kentucky Median Wages by Educational Attainment, Ages 25+, 2010</b>		
<b>Educational Attainment</b>	<b>Training Code</b>	<b>Median Wage**</b>
Doctoral, Professional, or Master's Degree	1,2	\$51,576
Bachelor's Degree	3	\$42,150
Associate's Degree, Postsecondary Non-Degree Award, or Some College, No Degree	4,5,6	\$30,207
High School Diploma or Equivalent	7	\$24,355
Less than High School	8	\$17,635
* Source: Research and Statistics Branch, 2010-2020 Occupational Projections		
**Source: U.S. Census Bureau, 2010 American Community Survey		

## Charting the Occupational Outlook

The following 14 charts focus on Kentucky occupations with the most annual job openings, fastest-growing employment and significant employment decline from 2010 to 2020. Each chart ranks the top 20 occupations, from highest to lowest, according to the number of annual job openings or percent change between 2010 and 2020. Each chart also includes the 2011 mean hourly wage for each occupation. Comments beside the chart summarize the occupational openings and job growth and include factors that affect these changes.

The first 12 charts organize occupations by the levels of education usually required to enter an occupation.

Charts 3 and 4 present Kentucky occupations usually requiring a professional or graduate degree. Doctoral degrees, professional degrees, and master's degrees are grouped together in the "Graduate or Professional Degree" category.

Charts 5 and 6 display Kentucky occupations usually requiring a bachelor's degree.

Charts 7 and 8 rank the occupations generally requiring an associate's degree.

Charts 9 and 10 present the Kentucky occupations generally requiring a postsecondary non-degree award or some college, no degree.

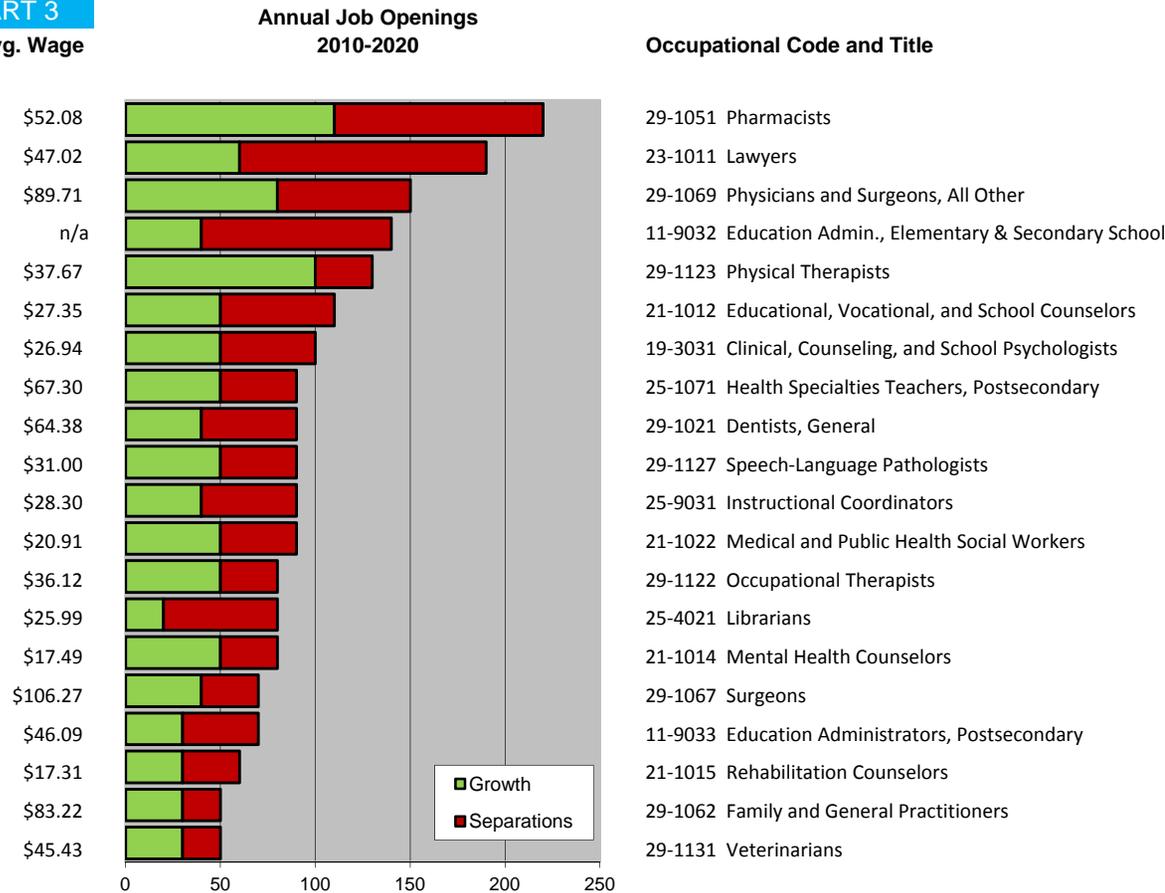
Charts 11 and 12 display occupations requiring a high school diploma or equivalent.

Kentucky occupations requiring less than a high school diploma are presented in Charts 13 and 14.

The final two charts, 15 and 16, identify Kentucky occupations in which employment is expected to decline significantly between 2010 and 2020.

## Twenty Kentucky Occupations with the Most Annual Job Openings Generally Requiring a Doctoral, Professional, or Master's Degree\*

**CHART 3**  
2011 Avg. Wage



*There are nearly 100 occupations that generally require a doctoral, professional, or master's degree, but these 20 represent over 71 percent of the projected total annual job openings in this category.*

*Sixteen of these 20 are classified as Education, Training & Library Occupations, Healthcare Practitioners & Technical Occupations, or Community and Social Service Occupations.*

*Approximately 49 percent of the total job openings in this category should be generated by employment growth, with the remaining 51 percent coming from separations.*

*None of the 95 occupations in this category are projected to decline in employment.*

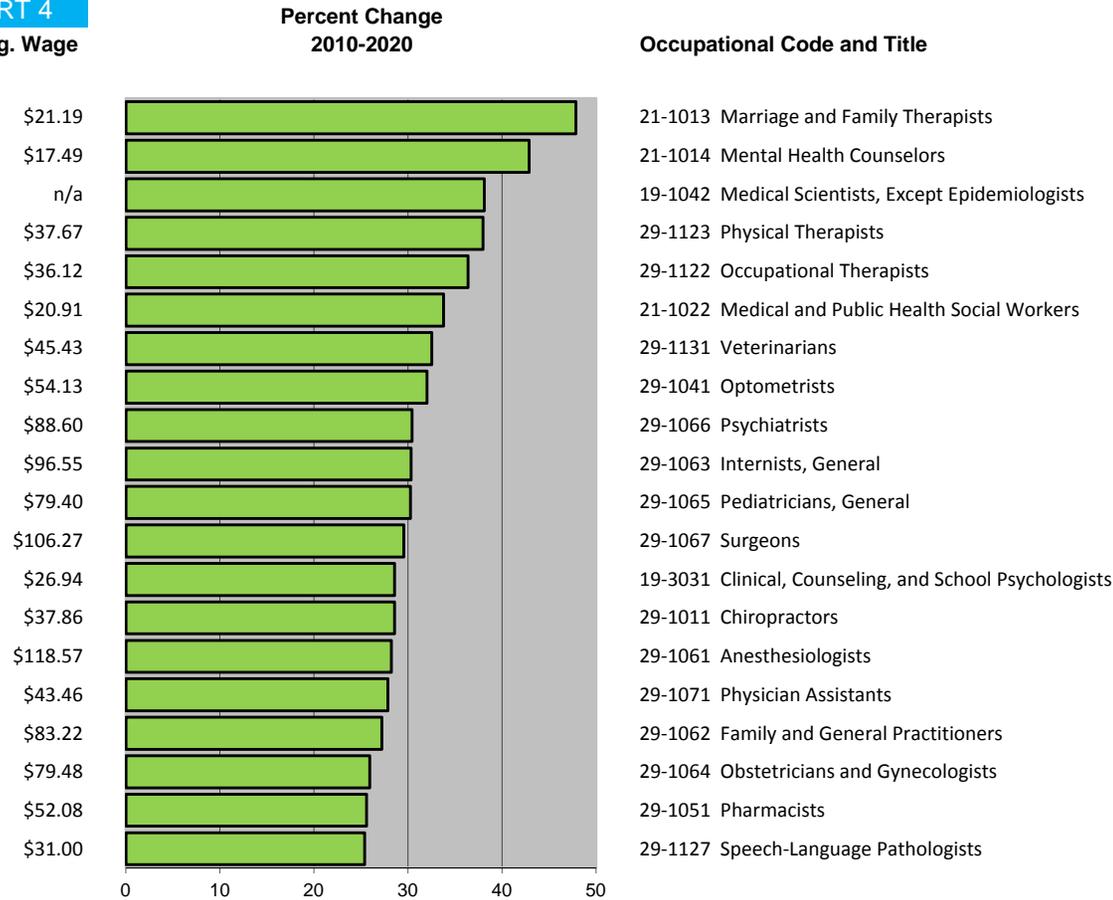
\*Ranked according to the total number of job openings each year, this chart illustrates the top 20 occupations in Kentucky for which a person usually needs a doctoral, professional, or master's degree to enter the occupation. The dark bar represents the number of job openings due to employment growth. The light bar represents job openings due to workers separating from the occupation.

\*\*Average hourly wages for teacher occupations were calculated by assuming 9.5 working months per year at 40 hours per week.

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

## Twenty Fastest Growing Kentucky Occupations Generally Requiring a Doctoral, Professional, or Master's Degree\*

**CHART 4**  
2011 Avg. Wage



*Occupations that require a doctoral, professional, or master's degree are expected to grow by 20.5 percent as a group between 2010 and 2020, making this the fastest growing educational category.*

*Marriage and Family Therapists top the list with the fastest growth rate in this group at about four times the average rate for all occupations.*

*Healthcare Practitioners and Technical Occupations account for 15 of these twenty fastest growing occupations.*

*The other five occupations are classified as Life, Physical, and Social Science Occupations or Community and Social Service Occupations.*

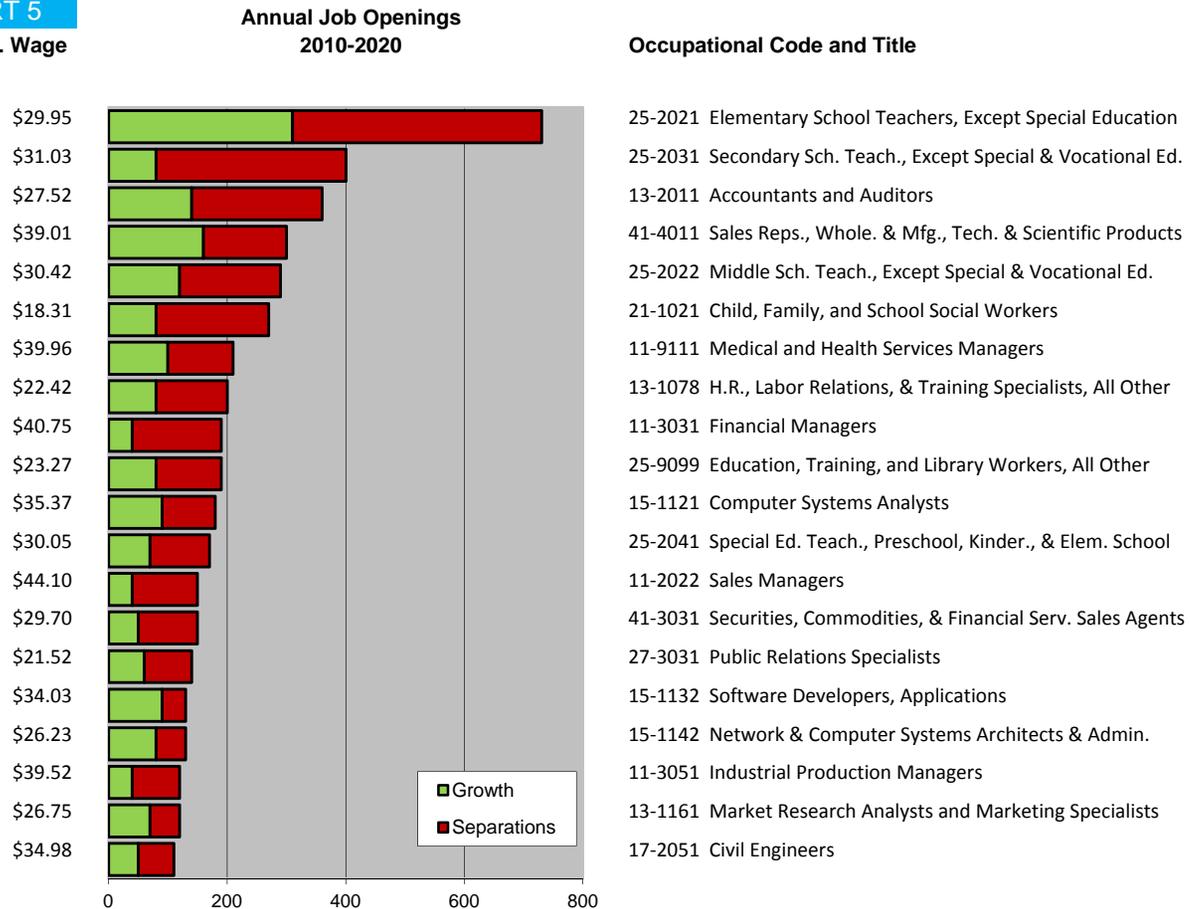
\*Occupations with less than 20 projected job openings each year are not included in this chart.

\*\*Average hourly wages for teacher occupations were calculated by assuming 9.5 working months per year at 40 hours per week.

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

## Twenty Kentucky Occupations with the Most Annual Job Openings Generally Requiring a Bachelor's Degree\*

**CHART 5**  
2011 Avg. Wage



*There are over 150 occupations that generally require a bachelor's degree, but these 20 represent over 50 percent of the projected total annual job openings in this category.*

*Five of these occupations are classified as Education, Training, and Library Occupations.*

*Approximately 39 percent of the total job openings in this category should be generated by employment growth, with the remaining 61 percent coming from separations.*

*Only three of the 150+ occupations requiring a bachelor's degree are projected to experience a decline in employment between 2010 and 2020.*

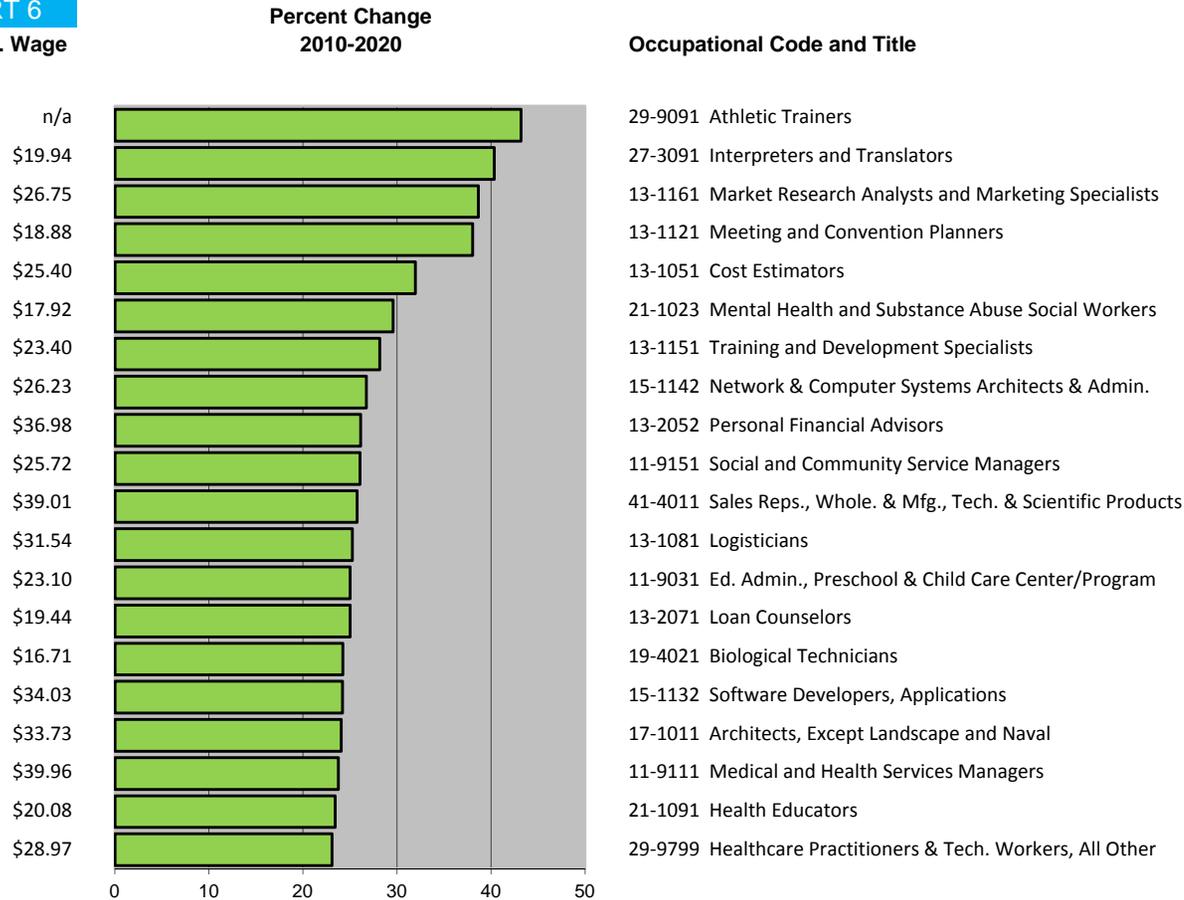
\*Ranked according to the total number of job openings each year, this chart illustrates the top 20 occupations in Kentucky for which a person usually needs a bachelor's degree to enter the occupation. The dark bar represents the number of job openings due to employment growth. The light bar represents job openings due to workers separating from the occupation.

\*\*Average hourly wages for teacher occupations were calculated by assuming 9.5 working months per year at 40 hours per week.

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

## Twenty Fastest Growing Kentucky Occupations Generally Requiring a Bachelor's Degree\*

**CHART 6**  
2011 Avg. Wage



*Occupations that require a bachelor's degree are projected to grow by 14.8 percent as a group between 2010 and 2020, well above the 12.4 percent average rate for all occupations.*

*Athletic Trainers top the list as the occupation with the fastest growth rate in this group at nearly four times the average rate for all Kentucky occupations.*

*Business Operations Specialists account for five of the fastest growing occupations in this category, including three of the top five.*

*Business and Financial Operations Occupations are represented seven times on this list.*

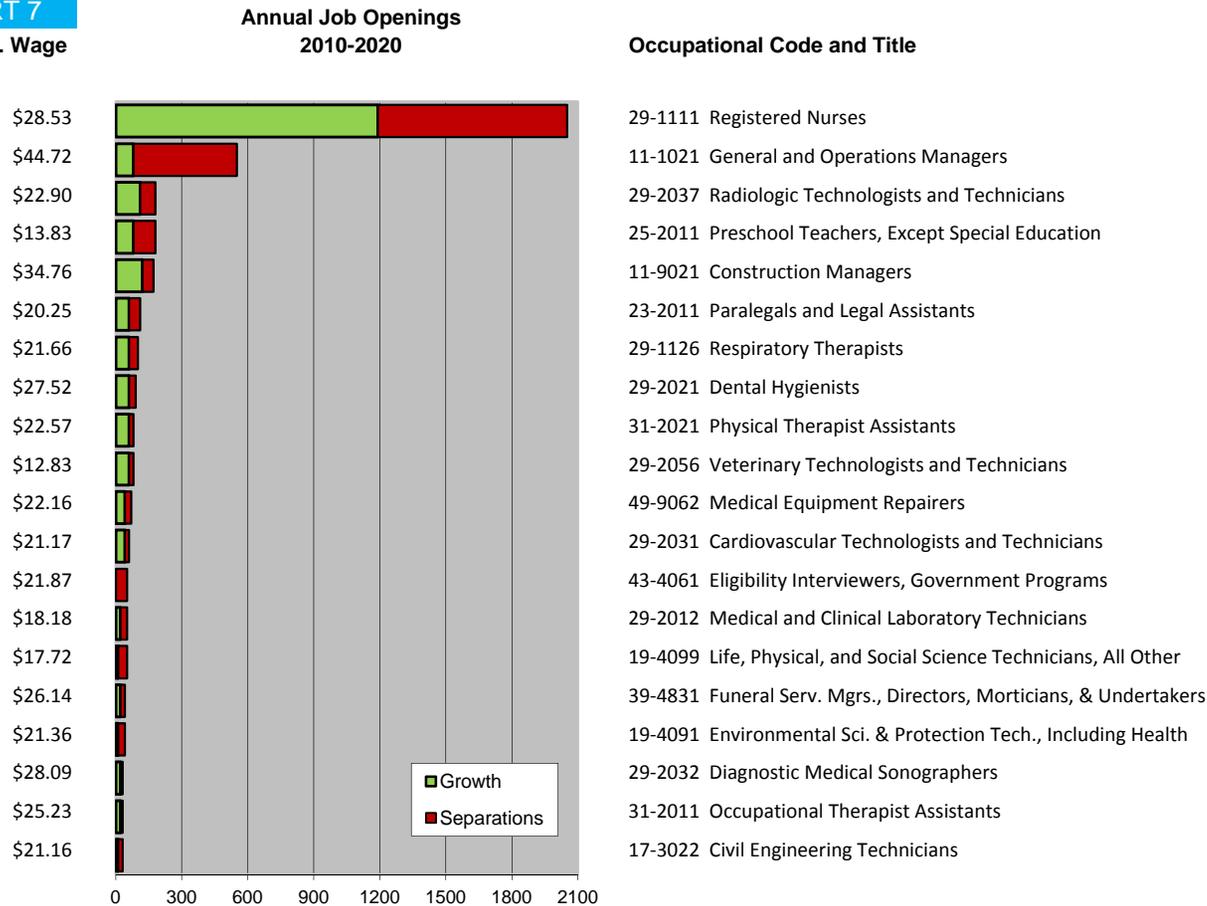
\*Occupations with less than 20 projected job openings each year are not included in this chart.

\*\*Average hourly wages for teacher occupations were calculated by assuming 9.5 working months per year at 40 hours per week.

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

## Twenty Kentucky Occupations with the Most Annual Job Openings Generally Requiring an Associate's Degree\*

**CHART 7**  
2011 Avg. Wage



*There are about 50 occupations that generally require an associate's degree, but these 20 represent over 95 percent of the projected total annual job openings in this category.*

*Eight of these occupations are classified as Healthcare Practitioners & Technical Occupations.*

*Approximately 49 percent of the total job openings in this category should be generated by employment growth, with the remaining 51 percent coming from separations.*

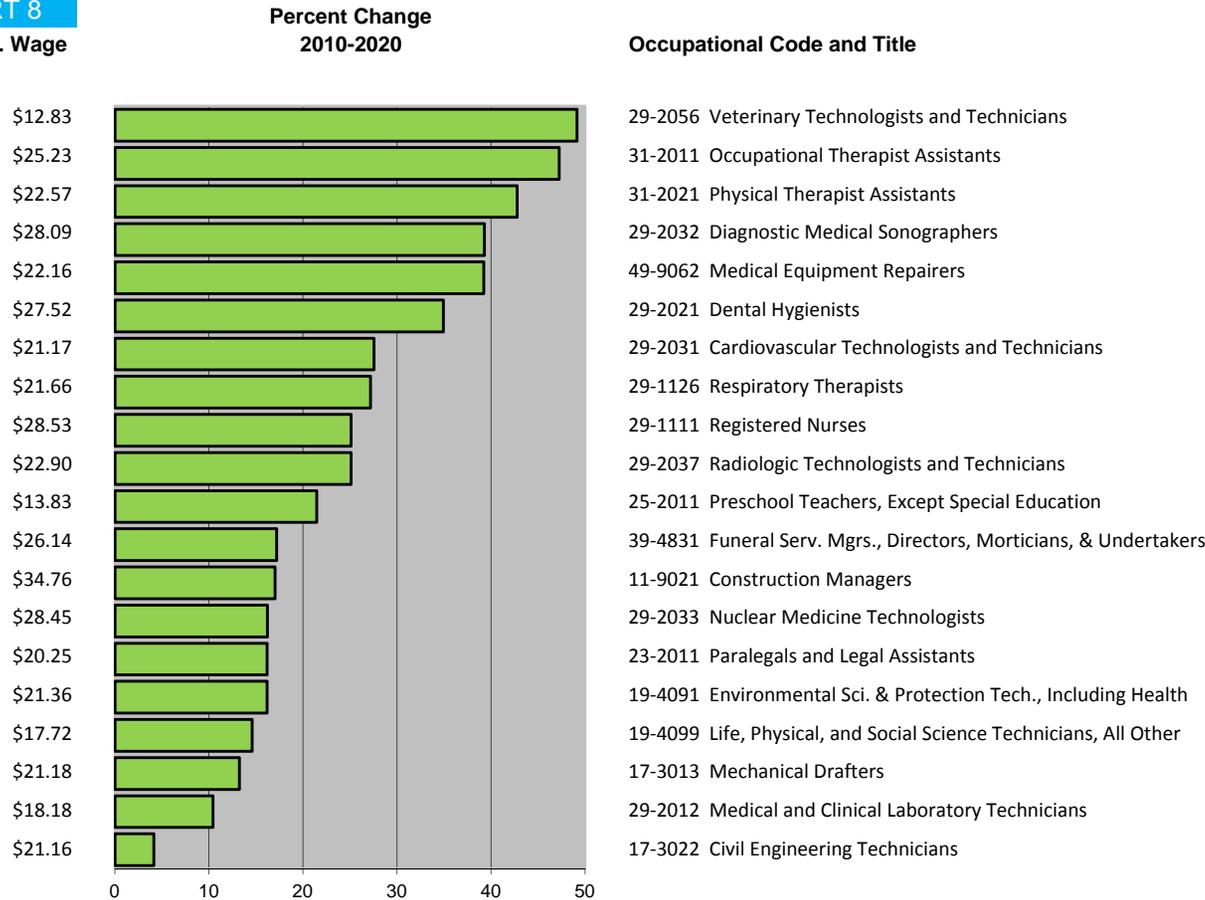
*Registered nurses are expected to provide nearly 2,100 total annual openings, nearly four times as many as any other occupation in this category.*

\*Ranked according to the total number of job openings each year, this chart illustrates the top 20 occupations in Kentucky for which a person usually needs an associate's degree to enter the occupation. The dark bar represents the number of job openings due to employment growth. The light bar represents job openings due to workers separating from the occupation.

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

## Twenty Fastest Growing Kentucky Occupations Generally Requiring an Associate's Degree\*

**CHART 8**  
2011 Avg. Wage



*Occupations that require an associate's degree are projected to grow by 17.9 percent as a group between 2010 and 2020, which is nearly 1.5 times the average rate for all Kentucky occupations.*

*Nine of these occupations are classified as Healthcare Practitioners & Technical Occupations.*

*Veterinary technologists and technicians top the list with the fastest growth rate in this group at four times the average rate for all occupations.*

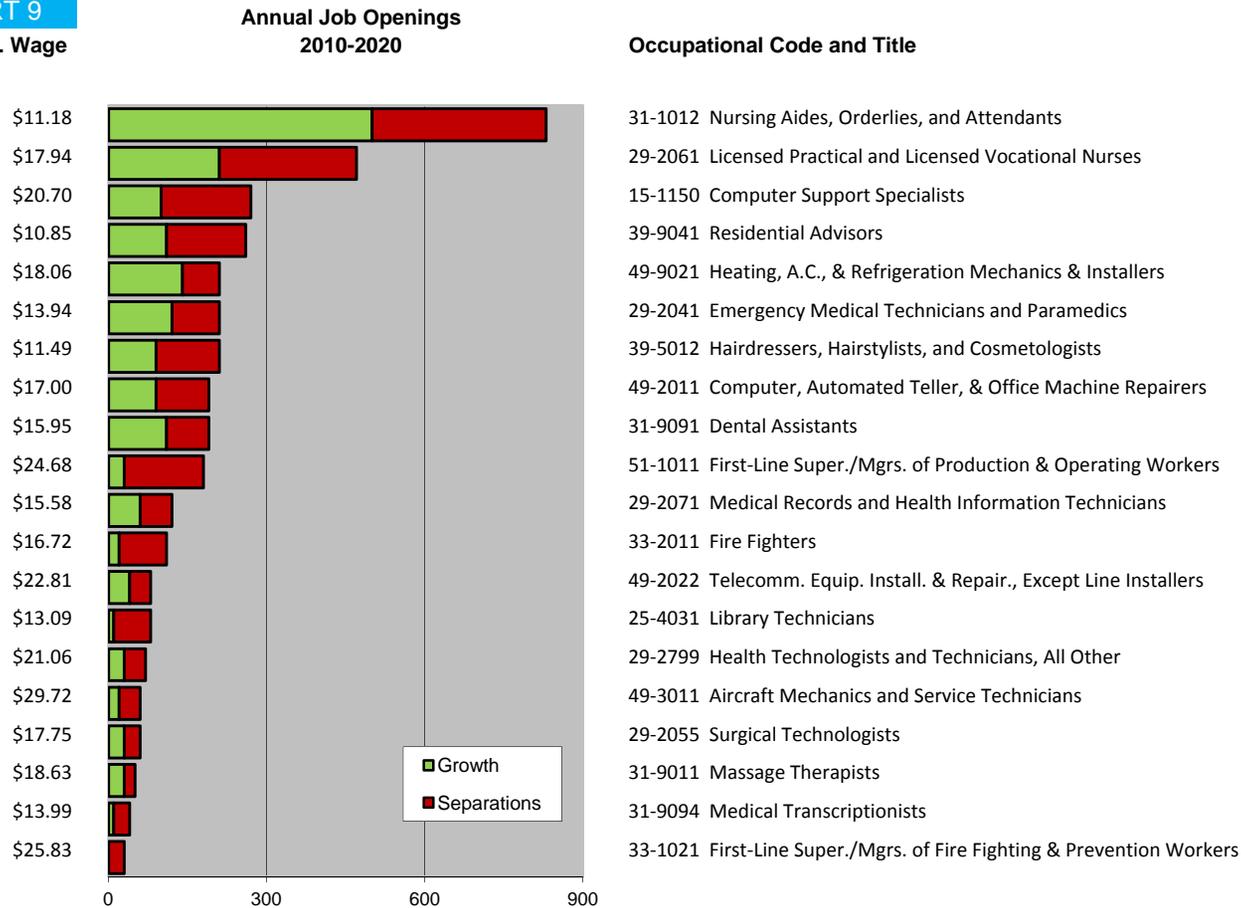
*Only three of the nearly 50 occupations requiring an associate's degree are projected to experience a decline in employment between 2010 and 2020.*

\*Occupations with less than 20 projected job openings each year are not included in this chart.

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

## Twenty Kentucky Occupations with the Most Annual Job Openings Generally Requiring a Postsecondary Non-Degree Award or Some College, No Degree\*

**CHART 9**  
2011 Avg. Wage



*There are nearly 50 occupations that generally require a postsecondary non-degree award or some college with no degree, but these 20 represent almost 95 percent of the projected total annual job openings in this category.*

*Approximately 46 percent of the total annual job openings in this category should be generated by employment growth, with the remaining 54 percent coming from separations.*

*Nine of the occupations on this list are either Healthcare Practitioners and Technical Occupations or Healthcare Support Occupations.*

*Only five of the listed occupations are expected to have more openings from growth than from separations.*

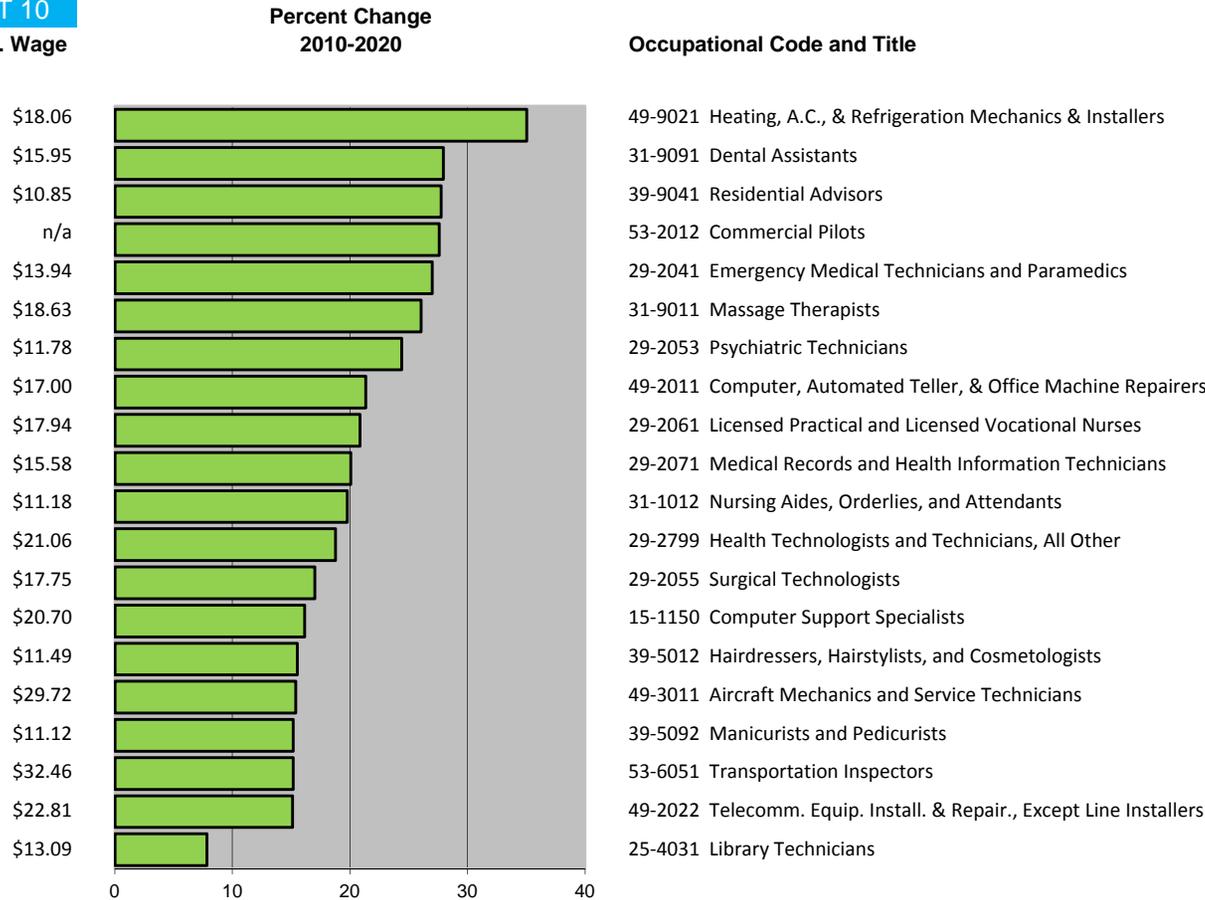
\*Ranked according to the total number of job openings each year, this chart illustrates the top 20 occupations in Kentucky for which a person usually needs a postsecondary non-degree award or some college, no degree to enter the occupation. The dark bar represents the number of job openings due to employment growth. The light bar represents job openings due to workers separating from the occupation.

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

## Twenty Fastest Growing Kentucky Occupations Generally Requiring a Postsecondary Non-Degree Award or Some College, No Degree\*

**CHART 10**

2011 Avg. Wage



*Occupations that require a postsecondary non-degree award or some college with no degree are projected to grow by 17.1 percent as a group between 2010 and 2020, which is significantly higher than the average for all occupations.*

*Only two of the nearly 50 occupations in this category are projected to decline in employment between 2010 and 2020.*

*Heating, Air Conditioning, and Refrigeration Mechanics and Installers top the list as the occupation with the fastest growth rate in this group at nearly three times the average rate for all Kentucky occupations.*

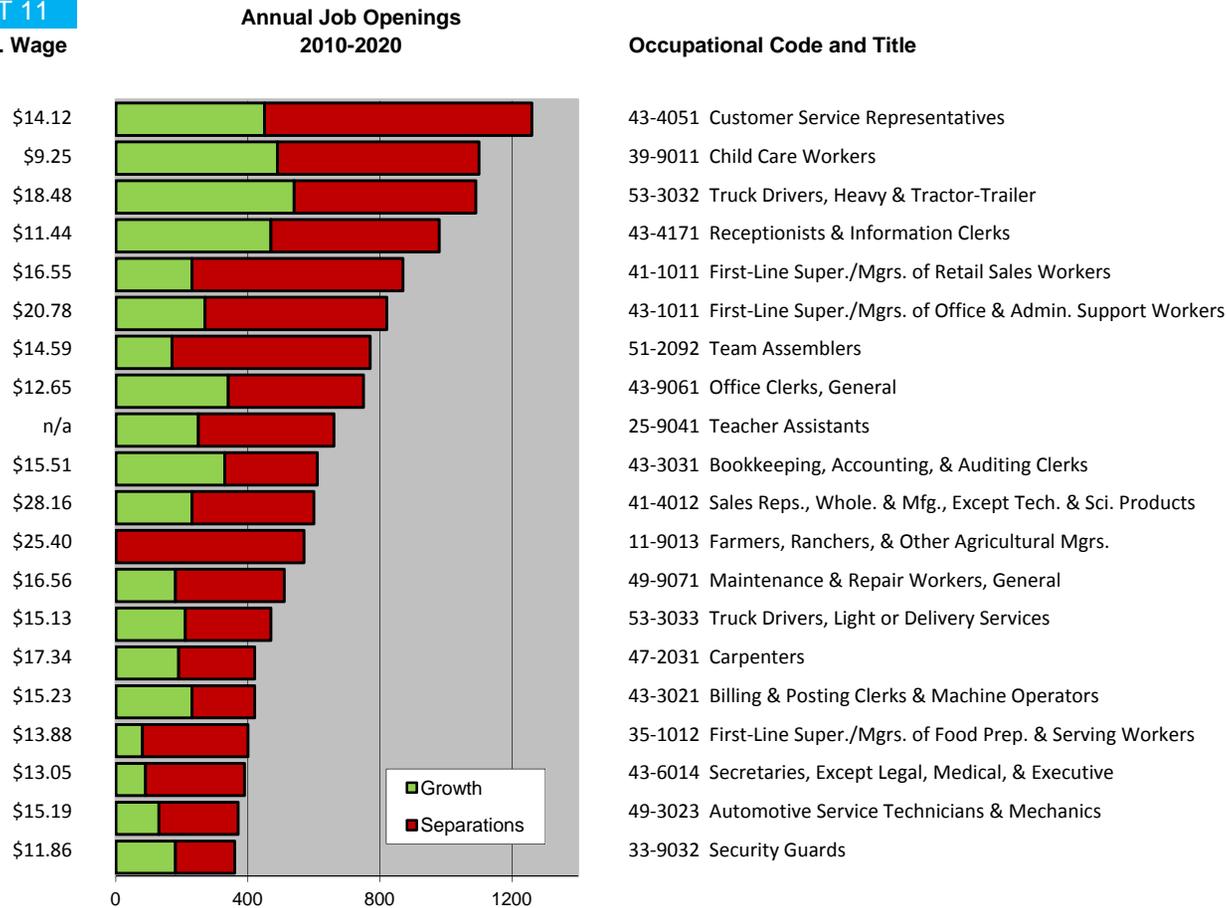
\*Occupations with less than 20 projected job openings each year are not included in this chart.

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

## Twenty Kentucky Occupations with the Most Annual Job Openings Generally Requiring a High School Diploma or Equivalent\*

**CHART 11**

2011 Avg. Wage



*There are over 330 occupations that generally require only a high school diploma or equivalent, but these 20 represent over 45 percent of the projected total annual job openings in this category.*

*Approximately 34 percent of the total job openings in this category should be generated by employment growth, with the remaining 66 percent coming from separations.*

*Farmers, Ranchers, and Other Agricultural Managers are actually expected to experience a decline in overall employment, but still managed to make the list because of the large number of projected openings created by separations.*

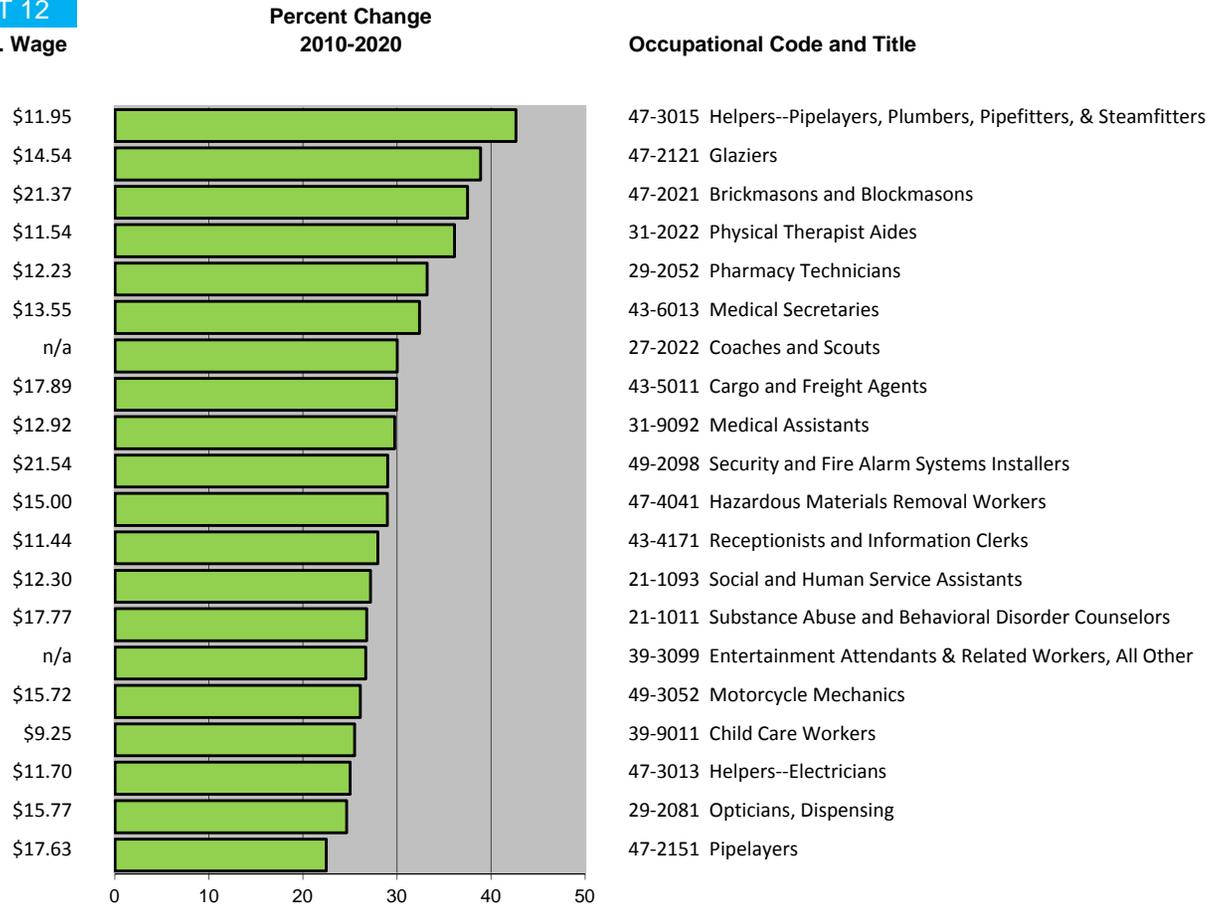
\*Ranked according to the total number of job openings each year, this chart illustrates the top 20 occupations in Kentucky for which a person usually needs a high school diploma or equivalent to enter the occupation. The dark bar represents the number of job openings due to employment growth. The light bar represents job openings due to workers separating from the occupation.

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

## Twenty Fastest Growing Kentucky Occupations Generally Requiring a High School Diploma or Equivalent\*

**CHART 12**

2011 Avg. Wage



*Occupations that require only a high school diploma or equivalent are projected to grow by only 11.0 percent as a group between 2010 and 2020, which is less than the average rate for all occupations.*

*Six of these 20 occupations are classified as Construction and Extraction Occupations.*

*Over 100 occupations in this category are expected to decline or have no growth in employment.*

*The top occupation on this list, Helpers of Pipelayers, Plumbers, Pipefitters, and Steamfitters, is projected to grow about 3.5 times faster than the average for all occupations.*

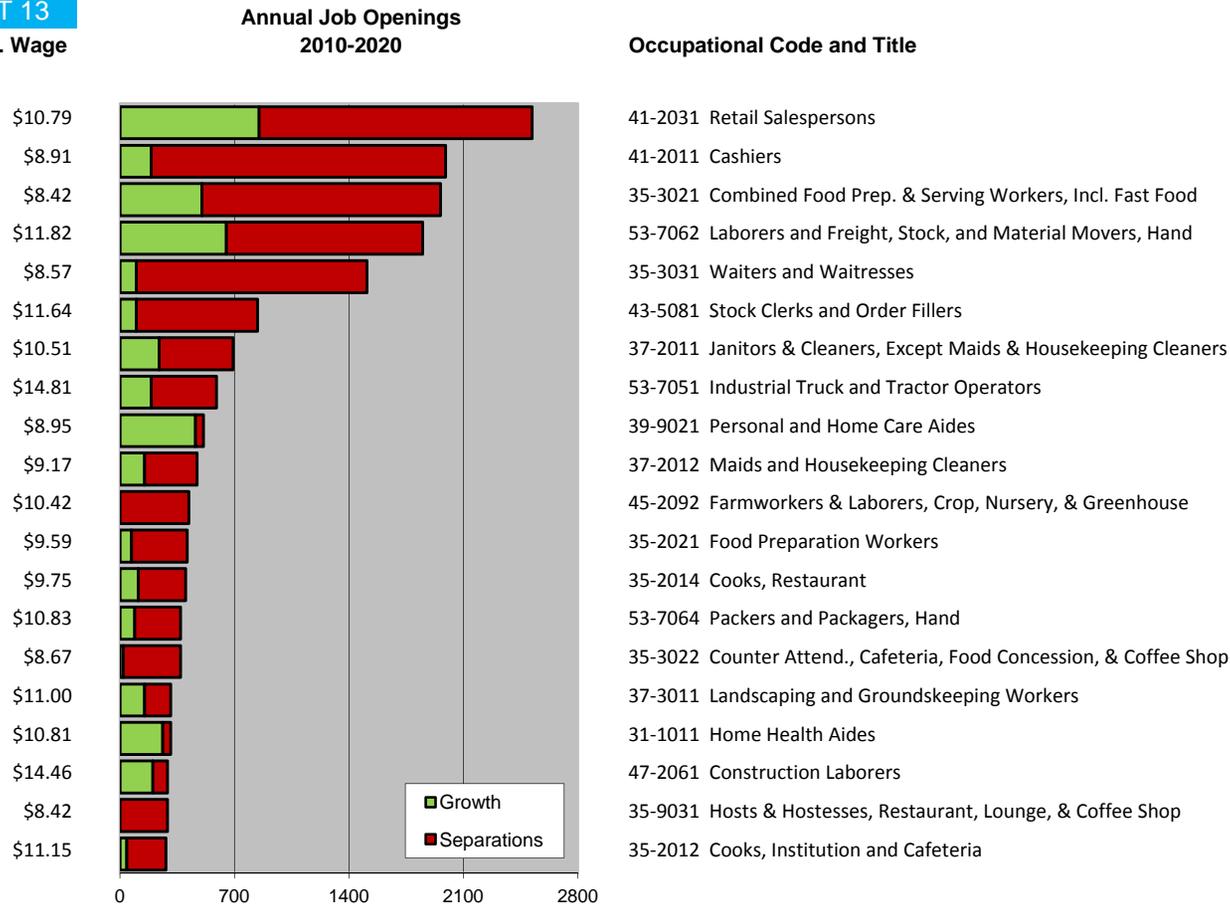
\*Occupations with less than 20 projected job openings each year are not included in this chart.

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

## Twenty Kentucky Occupations with the Most Annual Job Openings Generally Requiring Less than a High School Diploma or Equivalent\*

**CHART 13**

2011 Avg. Wage



*There are nearly 100 occupations that generally require less than a high school diploma or equivalent, but these 20 represent over 82 percent of the projected total annual job openings in this category.*

*Approximately 27 percent of the total job openings in this category should be generated by employment growth, with the remaining 73 percent coming from separations.*

*Occupations that require less education tend to have much higher separation rates than those that require some level of postsecondary education.*

*Only two of the occupations on this list earned more than \$12 per hour in 2011.*

\*Ranked according to the total number of job openings each year, this chart illustrates the top 20 occupations in Kentucky for which a person usually needs less than a high school diploma or equivalent to enter the occupation. The dark bar represents the number of job openings due to employment growth. The light bar represents job openings due to workers separating from the occupation.

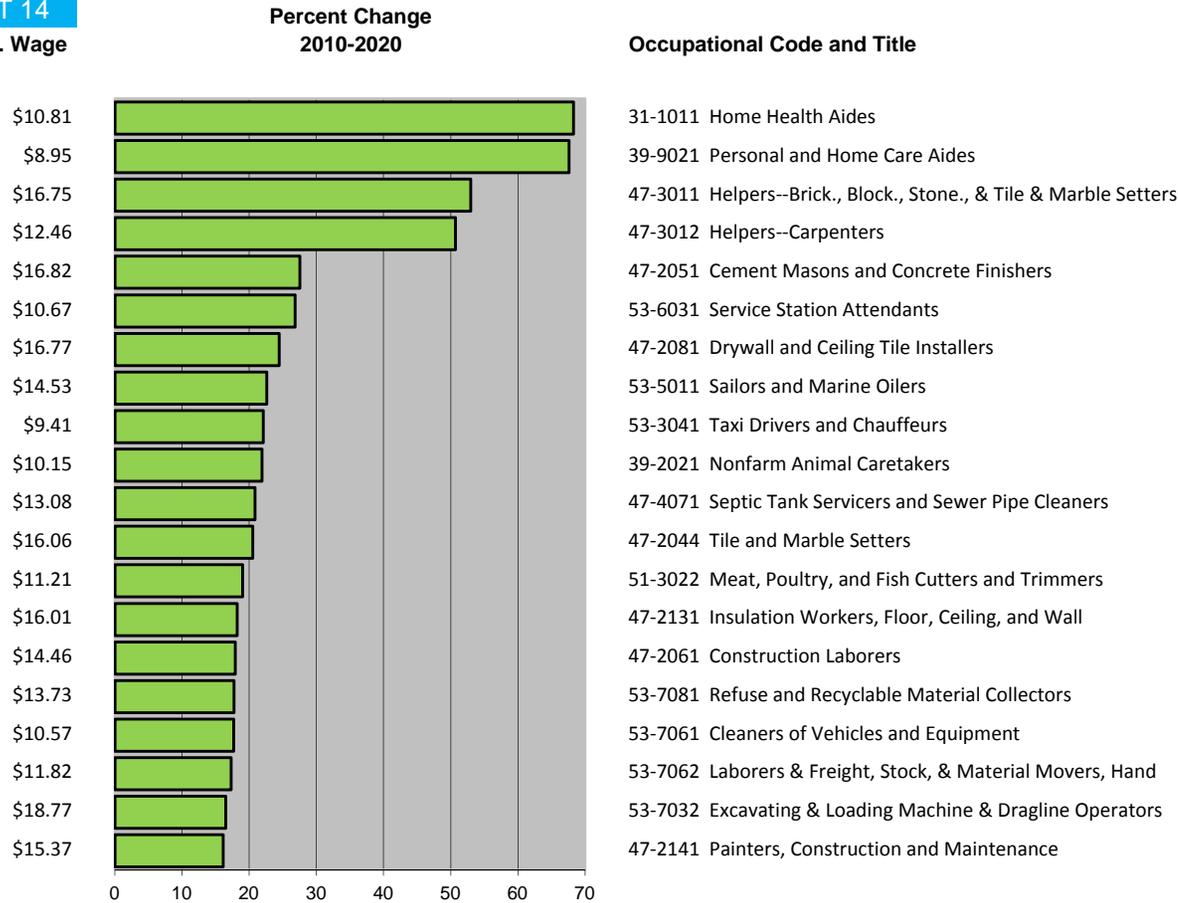
\*\*Average hourly wages for teacher occupations were calculated by assuming 9.5 working months per year at 40 hours per week.

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

## Twenty Fastest Growing Kentucky Occupations Generally Requiring Less than a High School Diploma or Equivalent\*

**CHART 14**

2011 Avg. Wage



*Occupations that require less than a high school diploma or equivalent are projected to grow by 10.4 percent as a group between 2010 and 2020, which is significantly lower than the average rate for all occupations.*

*Nine of these occupations are classified as Construction and Extraction Occupations, while another seven are Transportation and Material Moving Occupations.*

*About 30 of the nearly 100 occupations in this category are projected to decline or experience no growth in employment between 2010 and 2020.*

*Home Health Aides and Personal and Home Care Aides are both expected to grow very quickly due to Kentucky's aging population.*

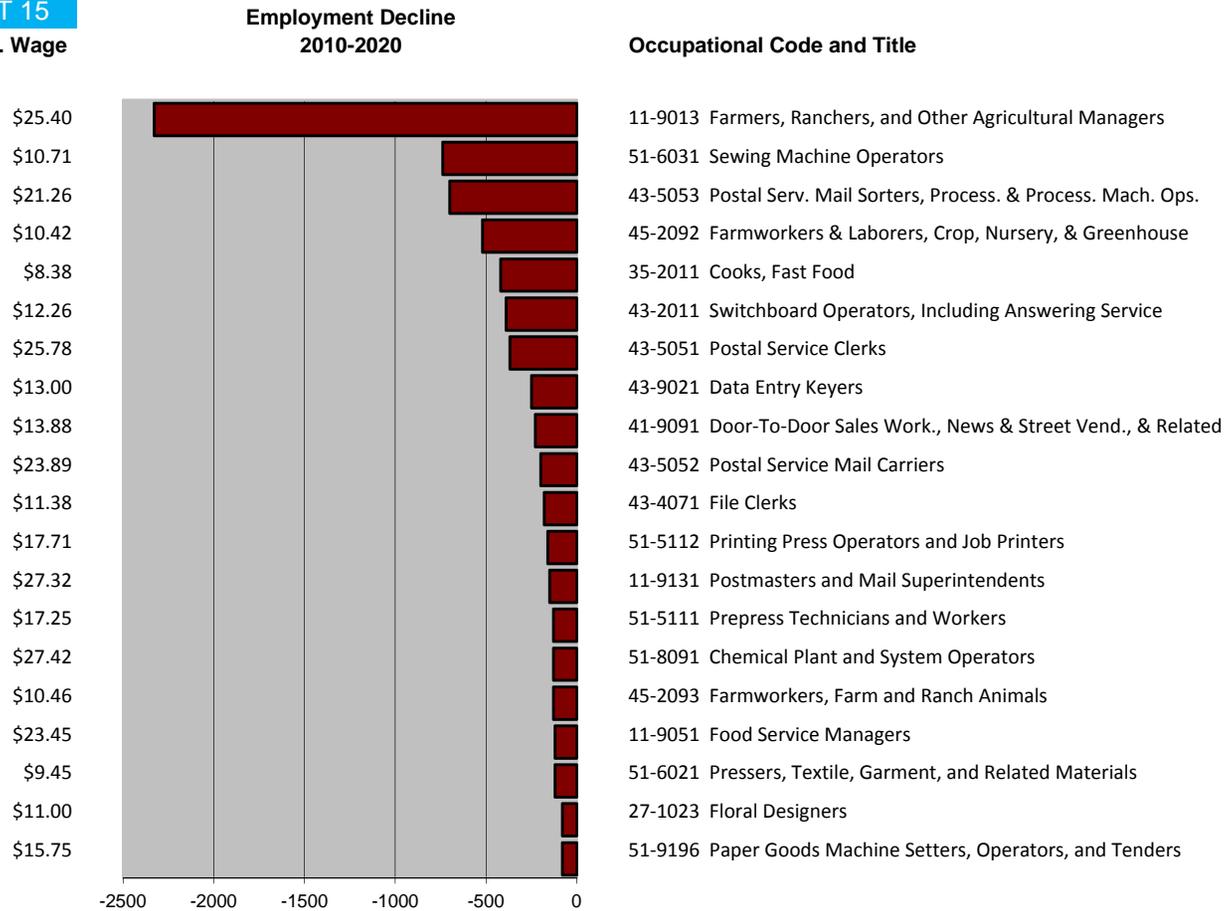
\*Occupations with less than 20 projected job openings each year are not included in this chart.

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

## Twenty Kentucky Occupations Losing the Largest Number of Jobs Between 2010 and 2020\*

**CHART 15**

2011 Avg. Wage



*A projected decline in employment generally implies that an occupation has an unfavorable outlook, but some openings could still be created as workers retire or separate from the job for other reasons.*

*Declining employment can be caused by a number of factors, including technological advancements that increase worker productivity, changes in consumer tastes, and outsourcing.*

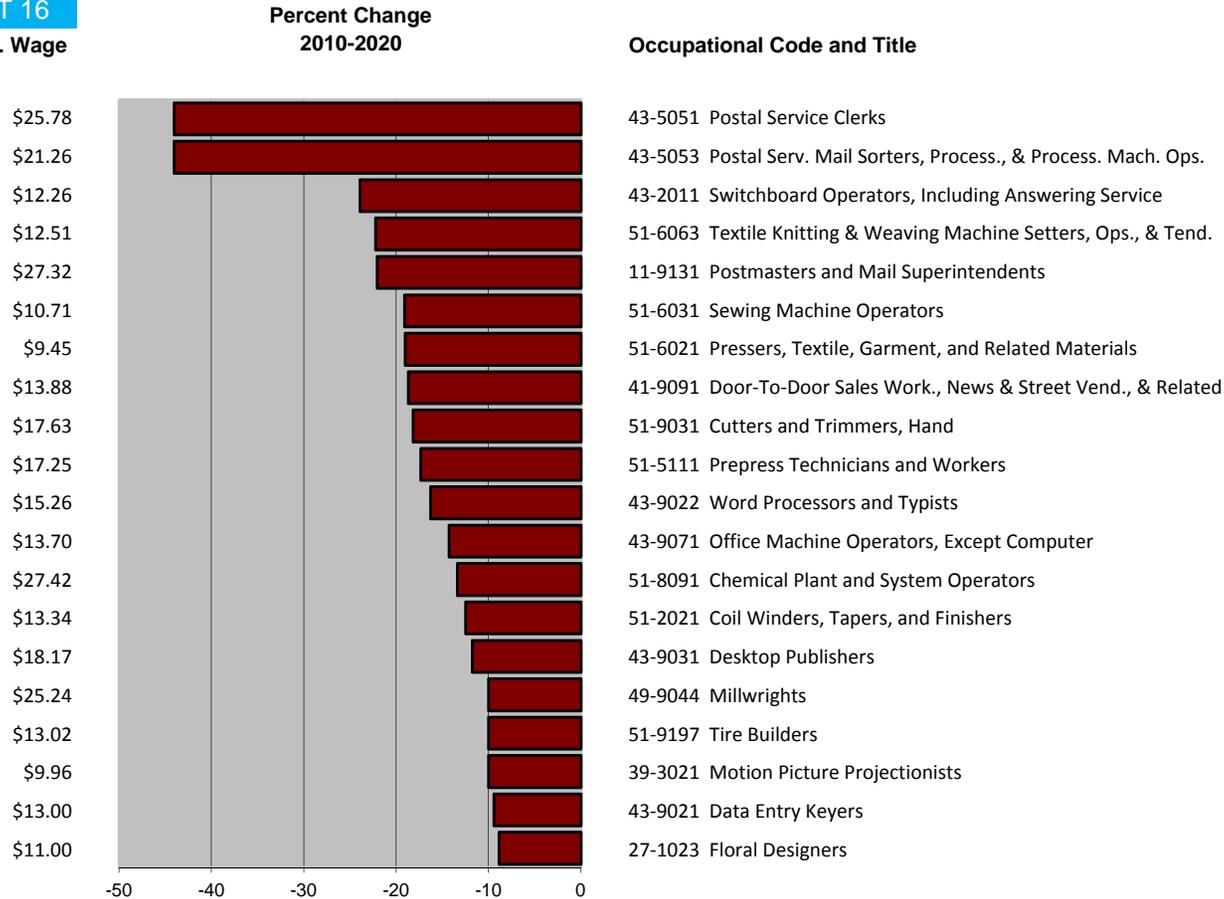
*Six of these occupations are Office and Administrative Support Occupations, while five more are Production Occupations. Much of the decline in these two occupational groups can be attributed to a growing reliance on computers, an increase in the automation of certain tasks, and outsourcing.*

\*Occupations with estimated statewide employment of less than 50 in 2010 or projected statewide employment of less than 50 in 2020 were not included in this chart.

## Twenty Fastest Declining Kentucky Occupations Between 2010 and 2020\*

CHART 16

2011 Avg. Wage



*Eighteen of these 20 occupations require only a high school diploma or equivalent or less than a high school diploma or equivalent, which means that employment decline in these jobs will have the greatest impact on those workers with the least amount of education and/or training.*

*The two remaining occupations, prepress technicians and workers and desktop publishers, generally require an associate's degree and a postsecondary non-degree award, respectively.*

*Fifteen of the occupations on this list are classified as either Production Occupations or Office and Administrative Support Occupations.*

\*Occupations with estimated statewide employment of less than 50 in 2010 or projected statewide employment of less than 50 in 2020 were not included in this chart.

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

## Explanation of Data Elements in the Occupational Outlook Table

# Occupational Employment Outlook

Occupational		Employment		Job Growth		Average Annual			Average	Education/
		2010	2020	2010	2020	Job Openings, 2010-2020			Wage	Training
Code	Title	Estimated	Projected	Number	Percent	Growth	Separations	Total	2011	Required
<p><b>Occupational Codes &amp; Titles</b> used in this report are based on the Standard Occupational Coding (SOC) structure.</p> <p><b>NOTE:</b></p> <p><b>Alphabetical listing beginning on page 6( will help locate a specific occupation within the tables.</b></p>		<p><b>Estimated</b> 2010 employment is based on the Occupational Employment Statistics (OES) Survey of employers.</p> <p><b>Projected</b> 2020 levels of occupational employment are based on projections of industry employment and projections of occupational change factors between 2010 and 2020.</p> <p><b>NOTE:</b></p> <p><b>The occupational employment estimates for 2010 to 2020 include all classes of workers such as public and private, wage and salaried workers; agricultural workers; private household workers; and self-employed.</b></p>		<p><b>Number</b> The total number of jobs in an occupation gained or lost over the 2010 to 2020 period.</p> <p><b>Percent</b> Percent change in employment in an occupation over the 10 year period.</p> <p><b>NOTE:</b></p> <p><b>In Kentucky, the average growth for all occupations is projected to be 12.4 percent between 2010-2020.</b></p> <p><b>The growth of an occupation is classified as one of the following based on its projected percent change in employment:</b></p> <ol style="list-style-type: none"> <li>1) Declining (&lt; 0%)</li> <li>2) Stable (0% - 6.99%)</li> <li>3) Growing (7.0% - 12.99%)</li> <li>4) Fast Growing (13.0% - 17.99%)</li> <li>5) Very Fast Growing (&gt; 18.0%)</li> </ol>		<p><b>Growth</b> Provides estimates of the average number of job openings expected to occur each year between 2010 and 2020.</p> <p><b>Separations</b> Provides estimates of the average number of job openings expected to occur each year in an occupation from workers separating or leaving for reasons such as retirement, promotion, or simply transferring among occupations. These separations would require replacement workers.</p> <p><b>Total</b> The sum of openings due to <b>growth</b> and openings due to <b>separations</b> for an occupation.</p> <p><b>NOTE:</b></p> <p><b>If employment growth is negative, the total number of job openings will equal the number of separations.</b></p>			<p><b>Average Wage</b> in this report always refers to the 2011 mean hourly wage.</p> <p><b>NOTE:</b></p> <p><b>Average hourly wages for each of the teacher occupations in this report were calculated from the average annual wage by assuming 9.5 working months per year at 40 hours per week.</b></p>	<p><b>Education and/or Training Levels Required</b> are developed by the Bureau of Labor Statistics (BLS).</p> <p><b>NOTE:</b></p> <p><b>The various categories are described in detail on page *' of this report.</b></p>

# Kentucky Statewide Occupational Employment Outlook

## Management Occupations

Occupational Code	Occupational Title	Employment*		Change		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	2010-2020 Number	2010-2020 Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>00-0000 Total, All Occupations</b>		<b>1,895,230</b>	<b>2,130,660</b>	<b>235,430</b>	<b>12.42</b>	<b>24,470</b>	<b>44,840</b>	<b>69,310</b>	<b>18.64</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>11-0000 Management Occupations</b>		<b>124,240</b>	<b>130,540</b>	<b>6,300</b>	<b>5.07</b>	<b>890</b>	<b>2,550</b>	<b>3,440</b>	<b>41.42</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>11-1000</b>	<b>Top Executives</b>	<b>30,260</b>	<b>31,180</b>	<b>920</b>	<b>3.04</b>	<b>90</b>	<b>600</b>	<b>690</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
11-1011	Chief Executives	*	*	*	*	*	*	*	73.15	3	1	6
11-1021	General and Operations Mgrs.	25,250	26,050	800	3.17	80	470	550	44.72	4	2	6
11-1031	Legislators	*	*	*	*	*	*	*	n/a	3	2	6
<b>11-2000</b>	<b>Advert., Market., Promotions, Public Relations, &amp; Sales Mgrs.</b>	<b>6,630</b>	<b>7,480</b>	<b>850</b>	<b>12.82</b>	<b>90</b>	<b>190</b>	<b>280</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
11-2011	Advertising and Promotions Mgrs.	270	300	30	11.11	0	10	10	29.04	3	2	6
11-2021	Marketing Mgrs.	1,680	1,940	260	15.48	30	50	80	45.35	3	2	6
11-2022	Sales Mgrs.	3,640	4,040	400	10.99	40	110	150	44.10	3	2	6
11-2031	Public Relations Mgrs.	1,040	1,200	160	15.38	20	30	50	34.14	3	2	6
<b>11-3000</b>	<b>Operations Specialties Mgrs.</b>	<b>20,720</b>	<b>22,710</b>	<b>1,990</b>	<b>9.60</b>	<b>200</b>	<b>440</b>	<b>640</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
11-3011	Administrative Services Mgrs.	1,940	2,180	240	12.37	20	50	70	32.47	7	2	6
11-3021	Computer and Information Systems Mgrs.	2,710	3,180	470	17.34	50	40	90	45.54	3	1	6
11-3031	Financial Mgrs.	7,910	8,340	430	5.44	40	150	190	40.75	3	1	6
11-3051	Industrial Production Mgrs.	3,510	3,860	350	9.97	40	80	120	39.52	3	2	6
11-3061	Purchasing Mgrs.	1,040	1,110	70	6.73	10	30	40	39.19	3	1	6
11-3071	Transportation, Storage, and Distribution Mgrs.	1,680	1,910	230	13.69	20	40	60	37.27	7	1	6
11-3111	Compensation and Benefits Mgrs.	290	290	0	0.00	0	10	10	35.24	3	2	6
11-3121	Human Resources Mgrs.	1,290	1,440	150	11.63	20	30	50	42.12	3	2	6
11-3131	Training and Development Mgrs.	360	410	50	13.89	10	10	20	34.09	3	2	6
<b>11-9000</b>	<b>Other Management Occupations</b>	<b>66,630</b>	<b>69,180</b>	<b>2,550</b>	<b>3.83</b>	<b>520</b>	<b>1,330</b>	<b>1,850</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
11-9013	Farmers, Ranchers, and Other Agricultural Mgrs.	29,440	27,110	-2,330	-7.91	0	570	570	25.40	7	1	6
11-9021	Construction Mgrs.	7,100	8,310	1,210	17.04	120	50	170	34.76	4	1	6
11-9031	Education Admin., Preschool and Child Care Center/Program	520	650	130	25.00	10	20	30	23.10	3	2	6
11-9032	Education Admin., Elementary and Secondary School	3,670	4,020	350	9.54	40	100	140	n/a	2	2	6
11-9033	Education Admin., Postsecondary	1,420	1,690	270	19.01	30	40	70	46.09	2	2	6
11-9039	Education Admin., All Other	670	710	40	5.97	0	20	20	31.90	3	2	6
11-9041	Engineering Mgrs.	1,810	1,930	120	6.63	10	40	50	44.07	3	1	6
11-9051	Food Service Mgrs.	2,900	2,780	-120	-4.14	0	50	50	23.45	7	2	6
11-9081	Lodging Mgrs.	520	560	40	7.69	10	10	20	26.00	7	2	6

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Management Occupations (cont'd)

Occupational Code Title		Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
11-9111	Medical and Health Services Mgrs.	4,420	5,470	1,050	23.76	100	110	210	39.96	3	4	6
11-9121	Natural Sciences Mgrs.	270	280	10	3.70	0	20	20	42.46	3	1	6
11-9131	Postmasters and Mail Superintendents	680	530	-150	-22.06	0	10	10	27.32	7	2	4
11-9141	Property, Real Estate, and Community Association Mgrs.	3,430	3,740	310	9.04	30	70	100	20.83	7	2	6
11-9151	Social and Community Service Mgrs.	2,150	2,710	560	26.05	60	50	110	25.72	3	2	6
11-9161	Emergency Management Directors	130	140	10	7.69	0	0	0	19.99	3	2	3
11-9199	Mgrs., All Other	7,490	8,550	1,060	14.15	110	170	280	40.04	7	2	6

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Business & Financial Operations Occs.

Occupational Code	Title	Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>13-0000 Business and Financial Operations Occupations</b>		<b>65,810</b>	<b>75,160</b>	<b>9,350</b>	<b>14.21</b>	<b>940</b>	<b>1,330</b>	<b>2,270</b>	<b>26.82</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>13-1000</b>	<b>Business Operations Specialists</b>	<b>39,400</b>	<b>45,000</b>	<b>5,600</b>	<b>14.21</b>	<b>560</b>	<b>770</b>	<b>1,330</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
13-1011	Agents & Business Mgrs. of Artists, Performers, & Athletes	70	70	0	0	0	0	0	25.59	3	2	6
13-1021	Purchasing Agents and Buyers, Farm Products	170	170	0	0.00	0	0	0	32.63	7	4	3
13-1022	Wholesale and Retail Buyers, Except Farm Products	780	880	100	12.82	10	20	30	23.56	7	4	3
13-1023	Purchasing Agents, Except Whole., Retail, & Farm Products	3,300	3,500	200	6.06	20	90	110	25.78	7	4	3
13-1031	Claims Adjusters, Examiners, and Investigators	3,810	3,830	20	0.52	0	100	100	27.71	7	4	3
13-1032	Insurance Appraisers, Auto Damage	*	*	*	*	*	*	*	21.28	5	4	4
13-1041	Compliance Ofcr., Except Agri., Constr., Hlth. & Safety, & Transp.	2,690	3,070	380	14.13	40	30	70	24.65	3	4	4
13-1051	Cost Estimators	1,660	2,190	530	31.93	50	30	80	25.40	3	4	6
13-1074	Farm Labor Contractors	*	*	*	*	*	*	*	n/a	8	3	5
13-1078	Human Res., Labor Relations, & Training Spec., All Other	6,780	7,540	760	11.21	80	120	200	22.42	3	4	6
13-1081	Logisticians	990	1,240	250	25.25	30	20	50	31.54	3	2	6
13-1111	Management Analysts	*	*	*	*	*	*	*	32.99	3	2	6
13-1121	Meeting and Convention Planners	710	980	270	38.03	30	10	40	18.88	3	3	6
13-1141	Compensation, Benefits, and Job Analysis Specialists	710	710	0	0.00	0	10	10	23.88	3	4	6
13-1151	Training and Development Specialists	2,310	2,960	650	28.14	60	40	100	23.40	3	4	6
13-1161	Market Research Analysts and Marketing Specialists	1,890	2,620	730	38.62	70	50	120	26.75	3	4	6
13-1199	Business Operations Specialists, All Other	8,470	9,320	850	10.04	90	160	250	29.33	7	3	3
<b>13-2000</b>	<b>Financial Specialists</b>	<b>26,420</b>	<b>30,160</b>	<b>3,740</b>	<b>14.16</b>	<b>380</b>	<b>570</b>	<b>950</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
13-2011	Accountants and Auditors	10,200	11,580	1,380	13.53	140	220	360	27.52	3	4	6
13-2021	Appraisers and Assessors of Real Estate	660	720	60	9.09	10	10	20	25.28	7	4	2
13-2031	Budget Analysts	1,290	1,410	120	9.30	10	30	40	27.74	3	4	6
13-2041	Credit Analysts	450	530	80	17.78	10	10	20	27.77	3	4	6
13-2051	Financial Analysts	1,240	1,500	260	20.97	30	30	60	33.05	3	4	6
13-2052	Personal Financial Advisors	2,870	3,620	750	26.13	80	30	110	36.98	3	4	6
13-2053	Insurance Underwriters	370	380	10	2.70	0	10	10	26.51	3	4	4
13-2061	Financial Examiners	250	300	50	20.00	10	10	20	35.24	3	4	4
13-2071	Loan Counselors	240	300	60	25.00	10	10	20	19.44	3	4	4
13-2072	Loan Officers	4,020	4,620	600	14.93	60	100	160	24.68	7	4	4
13-2081	Tax Examiners, Collectors, and Revenue Agents	2,580	2,800	220	8.53	20	60	80	22.48	3	4	4
13-2082	Tax Preparers	550	600	50	9.09	10	10	20	14.32	7	4	4
13-2099	Financial Specialists, All Other	1,720	1,820	100	5.81	10	40	50	23.29	3	4	4

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Computer & Mathematical Occupations

Occupational Code	Occupational Title	Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>15-0000</b>	<b>Computer and Mathematical Occupations</b>	<b>29,590</b>	<b>35,090</b>	<b>5,500</b>	<b>18.59</b>	<b>550</b>	<b>560</b>	<b>1,110</b>	<b>30.43</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>15-1000</b>	<b>Computer Specialists</b>	<b>28,850</b>	<b>34,240</b>	<b>5,390</b>	<b>18.68</b>	<b>540</b>	<b>530</b>	<b>1,070</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
15-1111	Computer and Information Research Scientists	*	*	*	*	*	*	*	34.30	1	4	6
15-1121	Computer Systems Analysts	4,720	5,640	920	19.49	90	90	180	35.37	3	4	6
15-1131	Computer Programmers	2,610	2,850	240	9.20	20	60	80	31.60	3	4	6
15-1132	Software Developers, Applications	3,800	4,720	920	24.21	90	40	130	34.03	3	4	6
15-1133	Software Developers, Systems Software	2,770	3,360	590	21.30	60	30	90	39.67	3	4	6
15-1141	Database Admin.	*	*	*	*	*	*	*	30.94	3	2	6
15-1142	Network and computer systems architects and Admin.	2,880	3,650	770	26.74	80	50	130	26.23	3	4	6
15-1150	Computer Support Specialists	6,380	7,410	1,030	16.14	100	170	270	20.70	6	4	4
15-1179	Info. Security Analysts, Web Develop., & Computer Net. Architects	2,670	3,180	510	19.10	50	40	90	29.44	3	2	6
15-1799	Computer Occupations, All Other	1,780	1,780	0	0.00	0	30	30	34.85	3	4	6
<b>15-2000</b>	<b>Mathematical Scientists</b>	<b>740</b>	<b>850</b>	<b>110</b>	<b>14.86</b>	<b>10</b>	<b>30</b>	<b>40</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
15-2011	Actuaries	160	200	40	25	0	10	10	47.12	3	4	3
15-2021	Mathematicians	*	*	*	*	*	*	*	42.12	2	4	6
15-2031	Operations Research Analysts	430	480	50	11.63	10	10	20	32.57	3	4	6
15-2041	Statisticians	120	140	20	17	0	10	10	31.66	2	4	6
15-2099	Mathematical Science Occupations, All Other	*	*	*	*	*	*	*	n/a	3	4	6

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Architecture & Engineering Occupations

Occupational Code	Occupational Title	Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>17-0000 Architecture and Engineering Occupations</b>		<b>24,060</b>	<b>26,590</b>	<b>2,530</b>	<b>10.52</b>	<b>260</b>	<b>540</b>	<b>800</b>	<b>30.85</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>17-1000</b>	<b>Architects, Surveyors, and Cartographers</b>	<b>1,770</b>	<b>2,120</b>	<b>350</b>	<b>19.77</b>	<b>40</b>	<b>40</b>	<b>80</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
17-1011	Architects, Except Landscape and Naval	790	980	190	24.05	20	20	40	33.73	3	4	1
17-1012	Landscape Architects	270	300	30	11.11	0	10	10	24.03	3	4	1
17-1021	Cartographers and Photogrammetrists	180	200	20	11.11	0	0	0	21.51	3	4	6
17-1022	Surveyors	530	640	110	20.75	10	10	20	25.03	3	4	6
<b>17-2000</b>	<b>Engineers</b>	<b>14,730</b>	<b>16,440</b>	<b>1,710</b>	<b>11.61</b>	<b>170</b>	<b>360</b>	<b>530</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
17-2011	Aerospace Engineers	*	*	*	*	*	*	*	48.73	3	4	6
17-2021	Agricultural Engineers	*	*	*	*	*	*	*	n/a	3	4	6
17-2031	Biomedical Engineers	*	*	*	*	*	*	*	33.39	3	4	6
17-2041	Chemical Engineers	410	440	30	7.32	0	10	10	42.51	3	4	6
17-2051	Civil Engineers	2,950	3,490	540	18.31	50	60	110	34.98	3	4	6
17-2061	Computer Hardware Engineers	750	870	120	16.00	10	20	30	42.21	3	4	6
17-2071	Electrical Engineers	1,440	1,660	220	15.28	20	40	60	39.71	3	4	6
17-2072	Electronics Engineers, Except Computer	640	700	60	9.38	10	20	30	42.77	3	4	6
17-2081	Environmental Engineers	300	350	50	16.67	10	10	20	33.52	3	4	6
17-2111	Health & Safety Engrs., Except Mining Safety Engrs. & Inspectors	250	280	30	12.00	0	10	10	33.27	3	4	6
17-2112	Industrial Engineers	3,260	3,410	150	4.60	20	70	90	32.91	3	4	6
17-2121	Marine Engineers and Naval Architects	*	*	*	*	*	*	*	n/a	3	4	6
17-2131	Materials Engineers	290	350	60	20.69	10	10	20	31.46	3	4	6
17-2141	Mechanical Engineers	2,700	2,850	150	5.56	20	90	110	35.57	3	4	6
17-2151	Mining and Geological Engrs., Including Mining Safety Engrs.	230	250	20	8.70	0	10	10	38.24	3	4	6
17-2161	Nuclear Engineers	*	*	*	*	*	*	*	37.38	3	4	6
17-2171	Petroleum Engineers	*	*	*	*	*	*	*	55.85	3	4	6
17-2199	Engineers, All Other	1,140	1,300	160	14.04	20	30	50	34.76	3	4	6

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Architecture & Engineering Occs. (cont'd)

Occupational Code Title		Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>17-3000</b>	<b>Drafters, Engineering, and Mapping Technicians</b>	<b>7,560</b>	<b>8,030</b>	<b>470</b>	<b>6.22</b>	<b>50</b>	<b>150</b>	<b>200</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
17-3011	Architectural and Civil Drafters	840	860	20	2.38	0	20	20	19.74	4	4	6
17-3012	Electrical and Electronics Drafters	340	380	40	11.76	0	10	10	25.09	4	4	6
17-3013	Mechanical Drafters	680	770	90	13.24	10	10	20	21.18	4	4	6
17-3019	Drafters, All Other	400	400	0	0.00	0	10	10	21.25	4	4	6
17-3021	Aerospace Engineering and Operations Technicians	*	*	*	*	*	*	*	30.99	4	4	6
17-3022	Civil Engineering Technicians	1,210	1,260	50	4.13	10	20	30	21.16	4	4	6
17-3023	Electrical and Electronic Engineering Technicians	1,010	1,030	20	1.98	0	20	20	29.63	4	4	6
17-3024	Electro-Mechanical Technicians	*	*	*	*	*	*	*	22.59	4	4	6
17-3025	Environmental Engineering Technicians	250	290	40	16.00	0	10	10	19.82	4	4	6
17-3026	Industrial Engineering Technicians	580	600	20	3.45	0	10	10	25.58	4	4	6
17-3027	Mechanical Engineering Technicians	350	360	10	2.86	0	10	10	24.00	4	4	6
17-3029	Engineering Technicians, Except Drafters, All Other	640	660	20	3.13	0	10	10	21.41	4	4	6
17-3031	Surveying and Mapping Technicians	1,140	1,310	170	14.91	20	20	40	17.15	7	4	4

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Life, Physical & Social Science Occupations

Occupational Code	Occupational Title	Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>19-0000 Life, Physical, and Social Science Occupations</b>		<b>10,360</b>	<b>11,930</b>	<b>1,570</b>	<b>15.15</b>	<b>160</b>	<b>310</b>	<b>470</b>	<b>24.76</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>19-1000</b>	<b>Life Scientists</b>	<b>2,380</b>	<b>2,770</b>	<b>390</b>	<b>16.39</b>	<b>40</b>	<b>40</b>	<b>80</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
19-1011	Animal Scientists	*	*	*	*	*	*	*	32.11	1	4	6
19-1012	Food Scientists and Technologists	190	200	10	5.26	0	10	10	32.18	3	4	6
19-1013	Soil and Plant Scientists	200	220	20	10.00	0	10	10	26.32	3	4	6
19-1021	Biochemists and Biophysicists	*	*	*	*	*	*	*	25.52	1	4	6
19-1022	Microbiologists	120	140	20	17	0	0	0	25.74	3	4	6
19-1023	Zoologists and Wildlife Biologists	180	190	10	5.56	0	0	0	24.06	3	4	6
19-1029	Biological Scientists, All Other	300	330	30	10.00	0	10	10	n/a	1	4	6
19-1031	Conservation Scientists	200	220	20	10.00	0	0	0	32.46	3	4	6
19-1032	Foresters	200	200	0	0.00	0	0	0	21.54	3	4	6
19-1041	Epidemiologists	90	110	20	22	0	0	0	24.64	2	4	6
19-1042	Medical Scientists, Except Epidemiologists	630	870	240	38.10	20	0	20	n/a	1	4	6
19-1099	Life Scientists, All Other	130	140	10	7.69	0	0	0	26.28	3	4	6
<b>19-2000</b>	<b>Physical Scientists</b>	<b>2,020</b>	<b>2,230</b>	<b>210</b>	<b>10.40</b>	<b>20</b>	<b>60</b>	<b>80</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
19-2011	Astronomers	*	*	*	*	*	*	*	n/a	1	4	6
19-2012	Physicists	*	*	*	*	*	*	*	49.10	1	4	6
19-2021	Atmospheric and Space Scientists	70	70	0	0	0	0	0	42.79	3	4	6
19-2031	Chemists	690	680	-10	-1.45	0	20	20	29.65	3	4	6
19-2032	Materials Scientists	*	*	*	*	*	*	*	23.38	3	4	6
19-2041	Environmental Scientists and Specialists, Including Health	780	920	140	17.95	10	20	30	26.89	3	4	6
19-2042	Geoscientists, Except Hydrologists and Geographers	290	340	50	17.24	10	10	20	30.79	3	4	6
19-2043	Hydrologists	*	*	*	*	*	*	*	41.77	2	4	6
19-2099	Physical Scientists, All Other	140	160	20	14.29	0	10	10	33.18	3	4	6

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Life, Physical & Social Science Occs. (cont'd)

Occupational Code Title		Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>19-3000</b>	<b>Social Scientists and Related Workers</b>	<b>3,030</b>	<b>3,670</b>	<b>640</b>	<b>21.12</b>	<b>60</b>	<b>100</b>	<b>160</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
19-3011	Economists	140	160	20	14.29	0	0	0	29.61	3	4	6
19-3022	Survey Researchers	60	80	20	33.33	0	0	0	20.49	3	4	6
19-3031	Clinical, Counseling, and School Psychologists	1,610	2,070	460	29	50	50	100	26.94	1	4	1
19-3032	Industrial-Organizational Psychologists	*	*	*	*	*	*	*	n/a	2	4	1
19-3039	Psychologists, All Other	230	260	30	13.04	0	10	10	37.72	2	4	1
19-3051	Urban and Regional Planners	260	290	30	11.54	0	10	10	20.32	2	4	6
19-3091	Anthropologists and Archeologists	80	100	20	25	0	0	0	24.17	2	4	6
19-3092	Geographers	*	*	*	*	*	*	*	30.94	3	4	6
19-3093	Historians	*	*	*	*	*	*	*	19.97	2	4	6
19-3094	Political Scientists	*	*	*	*	*	*	*	n/a	2	4	6
19-3099	Social Scientists and Related Workers, All Other	530	580	50	9.43	0	20	20	28.29	3	4	6
<b>19-4000</b>	<b>Life, Physical, and Social Science Technicians</b>	<b>2,930</b>	<b>3,270</b>	<b>340</b>	<b>11.60</b>	<b>30</b>	<b>110</b>	<b>140</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
19-4011	Agricultural and Food Science Technicians	150	160	10	6.67	0	10	10	16.60	4	4	6
19-4021	Biological Technicians	330	410	80	24	10	10	20	16.71	3	4	6
19-4031	Chemical Technicians	450	450	0	0.00	0	10	10	21.16	4	4	4
19-4041	Geological and Petroleum Technicians	*	*	*	*	*	*	*	35.83	4	4	4
19-4051	Nuclear Technicians	*	*	*	*	*	*	*	n/a	4	4	4
19-4061	Social Science Research Assistants	*	*	*	*	*	*	*	17.94	4	4	6
19-4091	Environmental Science & Protection Techs., Including Health	680	790	110	16.18	10	30	40	21.36	4	4	4
19-4092	Forensic Science Technicians	70	80	10	14.29	0	0	0	20.76	3	4	4
19-4093	Forest and Conservation Technicians	280	290	10	3.57	0	10	10	17.04	4	4	6
19-4099	Life, Physical, and Social Science Technicians, All Other	890	1,020	130	14.61	10	40	50	17.72	4	4	4

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Community & Social Service Occupations

Occupational Code Title		Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>21-0000 Community and Social Services Occupations</b>		<b>26,330</b>	<b>31,860</b>	<b>5,530</b>	<b>21.00</b>	<b>550</b>	<b>590</b>	<b>1,140</b>	<b>18.50</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>21-1000</b>	<b>Counselors, Soc. Work., &amp; Other Comm. &amp; Soc. Serv. Specialists</b>	<b>26,030</b>	<b>31,490</b>	<b>5,460</b>	<b>20.98</b>	<b>550</b>	<b>590</b>	<b>1,140</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
21-1011	Substance Abuse and Behavioral Disorder Counselors	710	900	190	26.76	20	20	40	17.77	7	4	4
21-1012	Educational, Vocational, and School Counselors	2,820	3,320	500	17.73	50	60	110	27.35	2	4	6
21-1013	Marriage and Family Therapists	230	340	110	47.83	10	10	20	21.19	2	4	1
21-1014	Mental Health Counselors	1,190	1,700	510	42.86	50	30	80	17.49	2	4	1
21-1015	Rehabilitation Counselors	1,160	1,440	280	24.14	30	30	60	17.31	2	4	6
21-1019	Counselors, All Other	140	170	30	21	0	0	0	14.25	2	4	6
21-1021	Child, Family, and School Social Workers	8,190	9,010	820	10.01	80	190	270	18.31	3	4	6
21-1022	Medical and Public Health Social Workers	1,510	2,020	510	33.77	50	40	90	20.91	2	4	6
21-1023	Mental Health and Substance Abuse Social Workers	1,590	2,060	470	29.56	50	40	90	17.92	3	4	6
21-1029	Social Workers, All Other	520	530	10	1.92	0	10	10	27.85	3	4	6
21-1091	Health Educators	470	580	110	23.40	10	10	20	20.08	3	4	6
21-1092	Probation Officers and Correctional Treatment Specialists	800	920	120	15.00	10	20	30	18.67	3	4	5
21-1093	Social and Human Service Assistants	5,740	7,300	1,560	27.18	160	120	280	12.30	7	4	5
21-1798	Community and Social Service Specialists, All Other	990	1,190	200	20.20	20	20	40	18.22	3	4	6
<b>21-2000</b>	<b>Religious Workers</b>	<b>300</b>	<b>370</b>	<b>70</b>	<b>23.33</b>	<b>10</b>	<b>10</b>	<b>20</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
21-2011	Clergy	250	320	70	28.00	10	0	10	23.34	3	4	4
21-2021	Directors, Religious Activities and Education	*	*	*	*	*	*	*	38.41	3	2	6
21-2099	Religious Workers, All Other	*	*	*	*	*	*	*	11.69	3	4	6

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Legal Occupations

Occupational Code Title		Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>23-0000 Legal Occupations</b>		<b>12,340</b>	<b>13,570</b>	<b>1,230</b>	<b>9.97</b>	<b>120</b>	<b>220</b>	<b>340</b>	<b>35.22</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>23-1000</b>	<b>Lawyers, Judges, and Related Workers</b>	<b>8,120</b>	<b>8,740</b>	<b>620</b>	<b>7.64</b>	<b>60</b>	<b>150</b>	<b>210</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
23-1011	Lawyers	6,860	7,460	600	8.75	60	130	190	47.02	1	4	6
23-1012	Judicial Law Clerks	*	*	*	*	*	*	*	16.17	1	4	6
23-1021	Administrative Law Judges, Adjudicators, and Hearing Officers	580	560	-20	-3	0	10	10	22.55	3	2	4
23-1022	Arbitrators, Mediators, and Conciliators	*	*	*	*	*	*	*	30.22	3	2	4
23-1023	Judges, Magistrate Judges, and Magistrates	460	480	20	4.35	0	10	10	60.26	1	1	5
<b>23-2000</b>	<b>Legal Support Workers</b>	<b>4,220</b>	<b>4,830</b>	<b>610</b>	<b>14.45</b>	<b>60</b>	<b>60</b>	<b>120</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
23-2011	Paralegals and Legal Assistants	3,400	3,950	550	16	60	50	110	20.25	4	4	6
23-2091	Court Reporters	*	*	*	*	*	*	*	23.86	5	4	5
23-2093	Title Examiners, Abstractors, and Searchers	*	*	*	*	*	*	*	17.52	7	4	5
23-2099	Legal Support Workers, All Other	480	520	40	8.33	0	10	10	21.12	7	4	5

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Education, Training & Library Occupations

Occupational Code	Occupational Title	Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>25-0000 Education, Training, and Library Occupations</b>		<b>106,660</b>	<b>122,210</b>	<b>15,550</b>	<b>14.58</b>	<b>1,560</b>	<b>2,380</b>	<b>3,940</b>	<b>22.98</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>25-1000</b>	<b>Postsecondary Teachers</b>	<b>20,250</b>	<b>23,750</b>	<b>3,500</b>	<b>17.28</b>	<b>350</b>	<b>320</b>	<b>670</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
25-1011	Business Teachers, Post.**	1,160	1,380	220	18.97	20	20	40	49.12	1	4	6
25-1021	Computer Science Teachers, Post.**	520	600	80	15.38	10	10	20	43.81	1	4	6
25-1022	Mathematical Science Teachers, Post.**	890	1,020	130	14.61	10	10	20	38.35	1	4	6
25-1031	Architecture Teachers, Post.**	*	*	*	*	*	*	*	n/a	1	4	6
25-1032	Engineering Teachers, Post.**	270	310	40	14.81	0	0	0	61.46	1	4	6
25-1041	Agricultural Sciences Teachers, Post.**	210	240	30	14.29	0	0	0	51.33	1	4	6
25-1042	Biological Science Teachers, Post.**	700	810	110	15.71	10	10	20	n/a	1	4	6
25-1043	Forestry and Conservation Science Teachers, Post.**	*	*	*	*	*	*	*	n/a	1	4	6
25-1051	Atmospheric, Earth, Marine, & Space Sciences Teachers, Post.**	80	90	10	13	0	0	0	43.19	1	4	6
25-1052	Chemistry Teachers, Post.**	300	350	50	16.67	10	10	20	43.23	1	4	6
25-1053	Environmental Science Teachers, Post.**	*	*	*	*	*	*	*	n/a	1	4	6
25-1054	Physics Teachers, Post.**	210	250	40	19	0	0	0	41.31	1	4	6
25-1061	Anthropology and Archeology Teachers, Post.**	90	110	20	22	0	0	0	40.64	1	4	6
25-1062	Area, Ethnic, and Cultural Studies Teachers, Post.**	60	80	20	33.33	0	0	0	40.33	1	4	6
25-1063	Economics Teachers, Post.**	220	260	40	18	0	0	0	53.69	1	4	6
25-1064	Geography Teachers, Post.**	100	120	20	20.00	0	0	0	37.68	1	4	6
25-1065	Political Science Teachers, Post.**	220	260	40	18.18	0	0	0	43.18	1	4	6
25-1066	Psychology Teachers, Post.**	570	670	100	17.54	10	10	20	39.74	1	4	6
25-1067	Sociology Teachers, Post.**	240	270	30	12.50	0	0	0	36.83	1	4	6
25-1069	Social Sciences Teachers, Postsecondary, All Other	100	110	10	10.00	0	0	0	36.79	1	4	6
25-1071	Health Specialties Teachers, Post.**	2,740	3,240	500	18.25	50	40	90	67.30	1	4	6
25-1072	Nursing Instructors and Teachers, Post.**	1,240	1,440	200	16.13	20	20	40	41.12	2	4	6
25-1081	Education Teachers, Post.**	1,060	1,260	200	19	20	20	40	38.25	1	4	6
25-1082	Library Science Teachers, Post.**	70	80	10	14	0	0	0	37.71	1	4	6
25-1111	Criminal Justice and Law Enforcement Teachers, Post.**	250	290	40	16.00	0	0	0	39.08	1	4	6
25-1112	Law Teachers, Post.**	160	200	40	25.00	0	0	0	70.60	1	4	6
25-1113	Social Work Teachers, Post.**	250	290	40	16.00	0	0	0	36.23	1	4	6

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

\*\* Average hourly wages for these teacher occupations were calculated by assuming 9.5 working months per year at 40 hours per week.

# Kentucky Statewide Occupational Employment Outlook

## Education, Training & Library Occs. (cont'd)

Occupational Code Title		Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
25-1121	Art, Drama, and Music Teachers, Post.**	1,100	1,310	210	19.09	20	20	40	36.66	1	4	6
25-1122	Communications Teachers, Post.**	570	670	100	17.54	10	10	20	35.62	1	4	6
25-1123	English Language and Literature Teachers, Post.**	1,200	1,390	190	15.83	20	20	40	33.14	1	4	6
25-1124	Foreign Language and Literature Teachers, Post.**	350	420	70	20.00	10	10	20	34.34	1	4	6
25-1125	History Teachers, Post.**	540	630	90	16.67	10	10	20	38.20	1	4	6
25-1126	Philosophy and Religion Teachers, Post.**	360	450	90	25.00	10	10	20	32.08	1	4	6
25-1191	Graduate Teaching Assistants	510	590	80	15.69	10	10	20	n/a	2	4	6
25-1192	Home Economics Teachers, Post.**	110	130	20	18.18	0	0	0	44.97	2	4	6
25-1193	Recreation and Fitness Studies Teachers, Post.**	260	300	40	15.38	0	0	0	34.69	2	4	6
25-1194	Vocational Education Teachers, Post.	2,260	2,670	410	18.14	40	40	80	23.29	3	2	6
25-1199	Postsecondary Teachers, All Other**	1,200	1,400	200	16.67	20	20	40	34.30	2	4	6
<b>25-2000</b>	<b>Primary, Secondary, and Special Education School Teachers</b>	<b>50,530</b>	<b>57,790</b>	<b>7,260</b>	<b>14.37</b>	<b>730</b>	<b>1,250</b>	<b>1,980</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
25-2011	Preschool Teachers, Except Special Education	3,730	4,530	800	21.45	80	100	180	13.83	4	4	6
25-2012	Kindergarten Teachers, Except Special Education**	1,400	1,650	250	17.86	20	40	60	30.83	3	4	1
25-2021	Elementary School Teachers, Except Special Education**	18,900	22,010	3,110	16.46	310	420	730	29.95	3	4	1
25-2022	Middle School Teachers, Except Special and Vocational Ed.**	7,530	8,780	1,250	17	120	170	290	30.42	3	4	1
25-2023	Vocational Education Teachers, Middle School**	*	*	*	*	*	*	*	35.15	3	2	1
25-2031	Secondary School Teachers, Except Special and Vocational Ed.**	11,540	12,300	760	6.59	80	320	400	31.03	3	4	1
25-2032	Vocational Education Teachers, Secondary School**	*	*	*	*	*	*	*	34.40	3	2	1
25-2041	Special Ed. Teachers, Preschool, Kinder., and Elem. School**	3,280	3,940	660	20.12	70	100	170	30.05	3	4	1
25-2053	Special Education Teachers, Middle School**	1,470	1,760	290	19.73	30	40	70	30.25	3	4	1
25-2054	Special Education Teachers, Secondary School**	2,190	2,340	150	6.85	20	70	90	30.77	3	4	1
<b>25-3000</b>	<b>Other Teachers and Instructors</b>	<b>5,740</b>	<b>6,500</b>	<b>760</b>	<b>13.24</b>	<b>80</b>	<b>90</b>	<b>170</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
25-3011	Adult Literacy, Remedial Ed., & GED Teachers & Instructors	990	1,150	160	16.16	20	20	40	17.96	3	4	1
25-3021	Self-Enrichment Education Teachers	1,110	1,320	210	18.92	20	20	40	15.28	7	2	6
25-3999	Teachers and Instructors, All Other	3,640	4,040	400	10.99	40	60	100	n/a	3	4	6
<b>25-4000</b>	<b>Librarians, Curators, and Archivists</b>	<b>4,010</b>	<b>4,310</b>	<b>300</b>	<b>7</b>	<b>30</b>	<b>130</b>	<b>160</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
25-4011	Archivists	*	*	*	*	*	*	*	18.53	3	4	6
25-4012	Curators	160	180	20	13	0	0	0	23.13	2	4	6
25-4013	Museum Technicians and Conservators	*	*	*	*	*	*	*	16.95	3	4	6
25-4021	Librarians	2,210	2,350	140	6.33	20	60	80	25.99	2	4	6
25-4031	Library Technicians	1,530	1,650	120	7.84	10	70	80	13.09	5	4	6

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\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

\*\* Average hourly wages for these teacher occupations were calculated by assuming 9.5 working months per year at 40 hours per week.

# Kentucky Statewide Occupational Employment Outlook

## Education, Training & Library Occs. (cont'd)

Occupational Code Title		Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>25-9000</b>	<b>Other Education, Training, and Library Occupations</b>	<b>26,130</b>	<b>29,870</b>	<b>3,740</b>	<b>14.31</b>	<b>370</b>	<b>590</b>	<b>960</b>	n/a	n/a	n/a	n/a
25-9011	Audio-Visual Collections Specialists	*	*	*	*	*	*	*	n/a	3	2	6
25-9021	Farm and Home Management Advisors	*	*	*	*	*	*	*	n/a	2	4	6
25-9031	Instructional Coordinators	2,080	2,470	390	18.75	40	50	90	28.30	2	1	6
25-9041	Teacher Assistants	18,350	20,820	2,470	13.46	250	410	660	n/a	7	4	5
25-9099	Education, Training, and Library Workers, All Other	5,090	5,870	780	15.32	80	110	190	23.27	3	4	6

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

\*\* Average hourly wages for these teacher occupations were calculated by assuming 9.5 working months per year at 40 hours per week.

# Kentucky Statewide Occupational Employment Outlook

## Arts, Design, Entertainment, Sports & Media Occs.

Occupational Code	Occupational Title	Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>27-0000</b>	<b>Arts, Design, Entertainment, Sports, and Media Occupations</b>	<b>21,190</b>	<b>23,920</b>	<b>2,730</b>	<b>12.88</b>	<b>290</b>	<b>560</b>	<b>850</b>	<b>18.55</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>27-1000</b>	<b>Art and Design Workers</b>	<b>6,230</b>	<b>6,850</b>	<b>620</b>	<b>9.95</b>	<b>70</b>	<b>190</b>	<b>260</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
27-1011	Art Directors	340	400	60	17.65	10	10	20	30.26	3	2	6
27-1012	Craft Artists	90	90	0	0	0	0	0	14.76	7	4	3
27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators	*	*	*	*	*	*	*	16.35	7	4	3
27-1014	Multi-Media Artists and Animators	140	150	10	7.14	0	0	0	27.48	3	4	4
27-1019	Artists and Related Workers, All Other	60	60	0	0.00	0	0	0	n/a	7	4	3
27-1021	Commercial and Industrial Designers	540	630	90	16.67	10	20	30	27.83	3	4	6
27-1022	Fashion Designers	*	*	*	*	*	*	*	37.14	7	4	3
27-1023	Floral Designers	900	820	-80	-8.89	0	30	30	11.00	7	4	5
27-1024	Graphic Designers	2,280	2,580	300	13.16	30	70	100	18.70	3	4	6
27-1025	Interior Designers	560	640	80	14.29	10	20	30	18.46	3	4	6
27-1026	Merchandise Displayers and Window Trimmers	1,160	1,300	140	12.07	20	40	60	12.72	7	4	4
27-1027	Set and Exhibit Designers	70	80	10	14	0	0	0	20.03	3	4	6
27-1029	Designers, All Other	*	*	*	*	*	*	*	14.40	3	4	6
<b>27-2000</b>	<b>Entertainers and Performers, Sports and Related Workers</b>	<b>4,330</b>	<b>5,150</b>	<b>820</b>	<b>18.94</b>	<b>80</b>	<b>120</b>	<b>200</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
27-2011	Actors	150	170	20	13	0	0	0	13.19	6	4	3
27-2012	Producers and Directors	740	820	80	10.81	10	20	30	20.66	3	2	6
27-2021	Athletes and Sports Competitors	*	*	*	*	*	*	*	n/a	7	4	3
27-2022	Coaches and Scouts	1,800	2,340	540	30.00	50	50	100	n/a	7	4	3
27-2023	Umpires, Referees, and Other Sports Officials	320	360	40	12.50	0	10	10	n/a	7	4	3
27-2031	Dancers	*	*	*	*	*	*	*	n/a	7	4	3
27-2032	Choreographers	200	250	50	25.00	10	10	20	16.35	7	1	3
27-2041	Music Directors and Composers	50	50	0	0	0	0	0	12.51	3	2	6
27-2042	Musicians and Singers	330	340	10	3.03	0	10	10	23.89	7	4	3
27-2099	Entertainers & Performers, Sports & Related Workers, All Other	540	630	90	16.67	10	10	20	19.68	7	4	6

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Arts, Design, Entertainment, Sports, Media Occs. (cont'd)

Occupational Code Title		Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>27-3000</b>	<b>Media and Communication Workers</b>	<b>7,700</b>	<b>8,700</b>	<b>1,000</b>	<b>12.99</b>	<b>100</b>	<b>210</b>	<b>310</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
27-3011	Radio and Television Announcers	1,290	1,310	20	1.55	0	40	40	13.30	3	4	6
27-3012	Public Address System and Other Announcers	*	*	*	*	*	*	*	14.45	7	4	5
27-3021	Broadcast News Analysts	*	*	*	*	*	*	*	25.07	3	4	6
27-3022	Reporters and Correspondents	670	630	-40	-5.97	0	20	20	18.10	3	4	6
27-3031	Public Relations Specialists	2,820	3,410	590	20.92	60	80	140	21.52	3	4	4
27-3041	Editors	960	980	20	2.08	0	30	30	21.91	3	2	6
27-3042	Technical Writers	280	320	40	14.29	0	10	10	26.14	3	2	5
27-3043	Writers and Authors	670	740	70	10.45	10	20	30	20.35	3	4	3
27-3091	Interpreters and Translators	620	870	250	40.32	30	20	50	19.94	3	4	3
27-3099	Media and Communication Workers, All Other	200	230	30	15.00	0	10	10	20.50	7	4	5
<b>27-4000</b>	<b>Media and Communication Equipment Workers</b>	<b>2,930</b>	<b>3,220</b>	<b>290</b>	<b>9.90</b>	<b>30</b>	<b>40</b>	<b>70</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
27-4011	Audio and Video Equipment Technicians	240	260	20	8.33	0	10	10	17.26	5	4	4
27-4012	Broadcast Technicians	360	380	20	5.56	0	10	10	19.66	4	4	5
27-4014	Sound Engineering Technicians	70	70	0	0	0	0	0	18.15	5	4	5
27-4021	Photographers	1,830	2,060	230	12.57	20	20	40	15.15	7	4	3
27-4031	Camera Operators, Television, Video, and Motion Picture	150	150	0	0.00	0	0	0	20.93	3	4	4
27-4032	Film and Video Editors	70	70	0	0	0	0	0	19.66	3	2	6
27-4099	Media and Communication Equipment Workers, All Other	220	230	10	4.55	0	0	0	20.23	7	4	4

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Healthcare Practitioners & Technical Occs.

Occupational Code Title		Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>29-0000 Healthcare Practitioners and Technical Occupations</b>		<b>120,700</b>	<b>150,800</b>	<b>30,100</b>	<b>24.94</b>	<b>3,010</b>	<b>2,400</b>	<b>5,410</b>	<b>30.45</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>29-1000</b>	<b>Health Diagnosing and Treating Practitioners</b>	<b>75,850</b>	<b>95,360</b>	<b>19,510</b>	<b>25.72</b>	<b>1,950</b>	<b>1,470</b>	<b>3,420</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
29-1011	Chiropractors	560	720	160	28.57	20	10	30	37.86	1	4	6
29-1021	Dentists, General	1,670	2,030	360	21.56	40	50	90	64.38	1	4	1
29-1022	Oral and Maxillofacial Surgeons	*	*	*	*	*	*	*	123.76	1	4	1
29-1023	Orthodontists	140	170	30	21.43	0	0	0	96.23	1	4	1
29-1029	Dentists, All Other Specialists	130	150	20	15.38	0	0	0	59.21	1	4	1
29-1031	Dietitians and Nutritionists	1,100	1,300	200	18.18	20	40	60	24.26	3	4	1
29-1041	Optometrists	500	660	160	32.00	20	20	40	54.13	1	4	6
29-1051	Pharmacists	4,260	5,350	1,090	25.59	110	110	220	52.08	1	4	6
29-1061	Anesthesiologists	780	1,000	220	28.21	20	20	40	118.57	1	4	1
29-1062	Family and General Practitioners	1,140	1,450	310	27.19	30	20	50	83.22	1	4	1
29-1063	Internists, General	660	860	200	30.30	20	10	30	96.55	1	4	1
29-1064	Obstetricians and Gynecologists	270	340	70	25.93	10	10	20	79.48	1	4	1
29-1065	Pediatricians, General	430	560	130	30.23	10	10	20	79.40	1	4	1
29-1066	Psychiatrists	230	300	70	30.43	10	10	20	88.60	1	4	1
29-1067	Surgeons	1,490	1,930	440	29.53	40	30	70	106.27	1	4	1
29-1069	Physicians and Surgeons, All Other	3,590	4,340	750	20.89	80	70	150	89.71	1	4	1
29-1071	Physician Assistants	790	1,010	220	27.85	20	20	40	43.46	2	4	6
29-1081	Podiatrists	160	200	40	25	0	0	0	70.01	1	4	1
29-1111	Registered Nurses	47,450	59,370	11,920	25.12	1,190	860	2,050	28.53	4	4	6
29-1122	Occupational Therapists	1,430	1,950	520	36.36	50	30	80	36.12	2	4	6
29-1123	Physical Therapists	2,530	3,490	960	37.94	100	30	130	37.67	1	4	6
29-1124	Radiation Therapists	180	200	20	11.11	0	0	0	32.93	4	4	6
29-1125	Recreational Therapists	190	220	30	15.79	0	10	10	18.37	3	4	6
29-1126	Respiratory Therapists	2,320	2,950	630	27.16	60	40	100	21.66	4	4	6
29-1127	Speech-Language Pathologists	2,010	2,520	510	25.37	50	40	90	31.00	2	4	6
29-1128	Therapists, all other	720	820	100	13.89	10	20	30	34.90	2	4	6
29-1131	Veterinarians	830	1,100	270	32.53	30	20	50	45.43	1	4	6
29-1181	Audiologists	*	*	*	*	*	*	*	44.06	1	4	6
29-1199	Health Diagnosing and Treating Practitioners, All Other	140	160	20	14.29	0	0	0	30.83	2	4	6

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Healthcare Practitioners & Tech. Occs. (cont'd)

Occupational Code Title		Employment*		Change		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	2010-2020 Number	2010-2020 Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>29-2000</b>	<b>Health Technologists and Technicians</b>	<b>42,620</b>	<b>52,900</b>	<b>10,280</b>	<b>24.12</b>	<b>1,030</b>	<b>860</b>	<b>1,890</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
29-2011	Medical and Clinical Laboratory Technologists	1,920	2,040	120	6.25	10	40	50	25.58	3	4	6
29-2012	Medical and Clinical Laboratory Technicians	1,630	1,800	170	10.43	20	30	50	18.18	4	4	6
29-2021	Dental Hygienists	1,690	2,280	590	34.91	60	30	90	27.52	4	4	6
29-2031	Cardiovascular Technologists and Technicians	1,380	1,760	380	27.54	40	20	60	21.17	4	4	6
29-2032	Diagnostic Medical Sonographers	560	780	220	39.29	20	10	30	28.09	4	4	6
29-2033	Nuclear Medicine Technologists	370	430	60	16.22	10	10	20	28.45	4	4	6
29-2037	Radiologic Technologists and Technicians	4,260	5,330	1,070	25.12	110	70	180	22.90	4	4	6
29-2041	Emergency Medical Technicians and Paramedics	4,560	5,790	1,230	26.97	120	90	210	13.94	5	4	6
29-2051	Dietetic Technicians	420	470	50	11.90	10	10	20	12.97	7	4	4
29-2052	Pharmacy Technicians	6,840	9,110	2,270	33.19	230	120	350	12.23	7	4	4
29-2053	Psychiatric Technicians	410	510	100	24.39	10	10	20	11.78	5	4	5
29-2054	Respiratory Therapy Technicians	290	300	10	3.45	0	10	10	20.59	4	4	4
29-2055	Surgical Technologists	1,940	2,270	330	17.01	30	30	60	17.75	5	4	6
29-2056	Veterinary Technologists and Technicians	1,120	1,670	550	49.11	60	20	80	12.83	4	4	6
29-2061	Licensed Practical and Licensed Vocational Nurses	9,840	11,890	2,050	20.83	210	260	470	17.94	5	4	6
29-2071	Medical Records and Health Information Technicians	2,840	3,410	570	20.07	60	60	120	15.58	5	4	6
29-2081	Opticians, Dispensing	690	860	170	24.64	20	10	30	15.77	7	4	3
29-2091	Orthotists and Prosthetists	110	120	10	9.09	0	0	0	31.47	2	4	6
29-2799	Health Technologists and Technicians, All Other	1,760	2,090	330	18.75	30	40	70	21.06	5	4	5
<b>29-9000</b>	<b>Other Healthcare Practitioners and Technical Occupations</b>	<b>2,230</b>	<b>2,540</b>	<b>310</b>	<b>13.90</b>	<b>30</b>	<b>80</b>	<b>110</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
29-9011	Occupational Health and Safety Specialists	1,350	1,390	40	2.96	0	50	50	29.83	3	4	4
29-9012	Occupational Health and Safety Technicians	190	200	10	5.26	0	10	10	21.04	7	4	4
29-9091	Athletic Trainers	440	630	190	43.18	20	20	40	n/a	3	4	6
29-9799	Health. Pract. & Tech. Work., All Other, Incl. Genetic Counselors	260	320	60	23.08	10	10	20	28.97	3	4	6

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Healthcare Support Occupations

Occupational Code Title		Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>31-0000 Healthcare Support Occupations</b>		<b>53,080</b>	<b>66,390</b>	<b>13,310</b>	<b>25.08</b>	<b>1,330</b>	<b>760</b>	<b>2,090</b>	<b>12.63</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>31-1000</b>	<b>Nursing, Psychiatric, and Home Health Aides</b>	<b>30,380</b>	<b>38,070</b>	<b>7,690</b>	<b>25.31</b>	<b>770</b>	<b>390</b>	<b>1,160</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
31-1011	Home Health Aides	3,750	6,310	2,560	68.27	260	50	310	10.81	8	4	5
31-1012	Nursing Aides, Orderlies, and Attendants	25,440	30,470	5,030	19.77	500	330	830	11.18	5	4	6
31-1013	Psychiatric Aides	1,200	1,290	90	7.50	10	20	30	12.03	7	4	5
<b>31-2000</b>	<b>Occupational and Physical Therapist Assistants and Aides</b>	<b>2,550</b>	<b>3,590</b>	<b>1,040</b>	<b>40.78</b>	<b>100</b>	<b>40</b>	<b>140</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
31-2011	Occupational Therapist Assistants	360	530	170	47.22	20	10	30	25.23	4	4	6
31-2012	Occupational Therapist Aides	90	110	20	22.22	0	0	0	16.16	7	4	5
31-2021	Physical Therapist Assistants	1,380	1,970	590	42.75	60	20	80	22.57	4	4	6
31-2022	Physical Therapist Aides	720	980	260	36.11	30	10	40	11.54	7	4	4
<b>31-9000</b>	<b>Other Healthcare Support Occupations</b>	<b>20,160</b>	<b>24,730</b>	<b>4,570</b>	<b>22.67</b>	<b>460</b>	<b>330</b>	<b>790</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
31-9011	Massage Therapists	960	1,210	250	26.04	30	20	50	18.63	5	4	6
31-9091	Dental Assistants	4,010	5,130	1,120	27.93	110	80	190	15.95	5	4	6
31-9092	Medical Assistants	7,700	9,990	2,290	29.74	230	120	350	12.92	7	4	4
31-9093	Medical Equipment Preparers	830	960	130	15.66	10	10	20	13.39	7	4	4
31-9094	Medical Transcriptionists	1,750	1,840	90	5.14	10	30	40	13.99	5	4	6
31-9095	Pharmacy Aides	590	690	100	16.95	10	10	20	11.17	7	4	5
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	1,100	1,250	150	13.64	20	20	40	10.17	7	4	5
31-9799	Healthcare Support Workers, All Other	3,230	3,660	430	13.31	40	50	90	14.70	7	4	5

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Protective Service Occupations

Occupational Code	Occupational Title	Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>33-0000</b>	<b>Protective Service Occupations</b>	<b>36,850</b>	<b>40,040</b>	<b>3,190</b>	<b>8.66</b>	<b>320</b>	<b>920</b>	<b>1,240</b>	<b>15.76</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>33-1000</b>	<b>First-Line Supervisors/Mgrs., Protective Service Workers</b>	<b>3,820</b>	<b>4,010</b>	<b>190</b>	<b>4.97</b>	<b>20</b>	<b>140</b>	<b>160</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
33-1011	First-Line Supervisors/Mgrs. of Correctional Officers	980	1,010	30	3.06	0	30	30	21.86	7	2	4
33-1012	First-Line Supervisors/Mgrs. of Police and Detectives	1,250	1,280	30	2.40	0	40	40	29.31	7	2	4
33-1021	First-Line Super./Mgrs. of Fire Fighting and Prevention Workers	650	690	40	6.15	0	30	30	25.83	5	2	6
33-1099	First-Line Super./Mgrs., Protective Service Workers, All Other	940	1,030	90	9.57	10	30	40	18.50	7	2	6
<b>33-2000</b>	<b>Fire Fighting and Prevention Workers</b>	<b>3,270</b>	<b>3,500</b>	<b>230</b>	<b>7.03</b>	<b>20</b>	<b>90</b>	<b>110</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
33-2011	Fire Fighters	3,150	3,380	230	7.30	20	90	110	16.72	5	4	3
33-2021	Fire Inspectors and Investigators	*	*	*	*	*	*	*	20.84	7	1	4
33-2022	Forest Fire Inspectors and Prevention Specialists	*	*	*	*	*	*	*	n/a	7	1	4
<b>33-3000</b>	<b>Law Enforcement Workers</b>	<b>15,360</b>	<b>15,980</b>	<b>620</b>	<b>4.04</b>	<b>60</b>	<b>350</b>	<b>410</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
33-3011	Bailiffs	620	670	50	8	10	10	20	11.18	7	4	4
33-3012	Correctional Officers and Jailers	7,400	7,520	120	1.62	10	130	140	14.05	7	4	4
33-3021	Detectives and Criminal Investigators	650	670	20	3.08	0	10	10	30.78	7	2	4
33-3031	Fish and Game Wardens	*	*	*	*	*	*	*	n/a	7	4	5
33-3041	Parking Enforcement Workers	70	70	0	0	0	0	0	13.15	7	4	5
33-3051	Police and Sheriff's Patrol Officers	6,490	6,930	440	6.78	40	190	230	18.97	7	4	4
33-3052	Transit and Railroad Police	*	*	*	*	*	*	*	25.89	7	4	5
<b>33-9000</b>	<b>Other Protective Service Workers</b>	<b>14,400</b>	<b>16,540</b>	<b>2,140</b>	<b>14.86</b>	<b>220</b>	<b>340</b>	<b>560</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
33-9011	Animal Control Workers	250	280	30	12.00	0	10	10	12.25	7	4	4
33-9021	Private Detectives and Investigators	60	70	10	16.67	0	0	0	18.76	6	2	4
33-9032	Security Guards	11,090	12,900	1,810	16	180	180	360	11.86	7	4	5
33-9091	Crossing Guards	270	250	-20	-7.41	0	10	10	12.10	7	4	5
33-9092	Lifeguards, Ski Patrol, and Other Rec. Protective Service Work.	1,180	1,290	110	9.32	10	80	90	8.74	7	4	5
33-9093	Transportation Security Screeners	560	630	70	12.50	10	10	20	18.08	7	4	4
33-9099	Protective Service Workers, All Other	990	1,140	150	15.15	10	60	70	15.35	7	4	5

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Food Preparation & Serving Related Occs.

Occupational Code Title		Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>35-0000 Food Preparation and Serving Related Occupations</b>		<b>160,210</b>	<b>169,500</b>	<b>9,290</b>	<b>5.80</b>	<b>980</b>	<b>5,380</b>	<b>6,360</b>	<b>9.44</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>35-1000 Supervisors, Food Preparation and Serving Workers</b>		<b>15,780</b>	<b>16,560</b>	<b>780</b>	<b>4.94</b>	<b>80</b>	<b>330</b>	<b>410</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
35-1011	Chefs and Head Cooks	700	670	-30	-4.29	0	10	10	18.97	7	2	6
35-1012	First-Line Super./Mgrs. of Food Preparation & Serving Workers	15,080	15,890	810	5.37	80	320	400	13.88	7	2	6
<b>35-2000 Cooks and Food Preparation Workers</b>		<b>41,110</b>	<b>42,890</b>	<b>1,780</b>	<b>4.33</b>	<b>220</b>	<b>1,020</b>	<b>1,240</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
35-2011	Cooks, Fast Food	5,010	4,590	-420	-8.38	0	110	110	8.38	8	4	5
35-2012	Cooks, Institution and Cafeteria	11,390	11,780	390	3.42	40	240	280	11.15	8	4	5
35-2013	Cooks, Private Household	*	*	*	*	*	*	*	n/a	5	2	6
35-2014	Cooks, Restaurant	13,410	14,460	1,050	7.83	110	290	400	9.75	8	3	4
35-2015	Cooks, Short Order	1,610	1,650	40	2.48	0	30	30	9.03	8	4	5
35-2019	Cooks, All Other	*	*	*	*	*	*	*	9.45	8	4	4
35-2021	Food Preparation Workers	9,510	10,200	690	7.26	70	340	410	9.59	8	4	5
<b>35-3000 Food and Beverage Serving Workers</b>		<b>91,840</b>	<b>98,530</b>	<b>6,690</b>	<b>7.28</b>	<b>670</b>	<b>3,430</b>	<b>4,100</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
35-3011	Bartenders	4,640	4,870	230	4.96	20	160	180	9.32	8	4	5
35-3021	Combined Food Prep. & Serving Workers, Including Fast Food	52,180	57,220	5,040	9.66	500	1,460	1,960	8.42	8	4	5
35-3022	Counter Attendants, Cafeteria, Food Concession, & Coffee Shop	4,770	4,950	180	3.77	20	350	370	8.67	8	4	5
35-3031	Waiters and Waitresses	28,300	29,290	990	3.50	100	1,410	1,510	8.57	8	4	5
35-3041	Food Servers, Nonrestaurant	1,960	2,210	250	12.76	30	60	90	9.76	8	4	5
<b>35-9000 Other Food Preparation and Serving Related Workers</b>		<b>11,480</b>	<b>11,520</b>	<b>40</b>	<b>0.35</b>	<b>10</b>	<b>600</b>	<b>610</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	2,590	2,580	-10	-0.39	0	100	100	8.51	8	4	5
35-9021	Dishwashers	4,680	4,780	100	2.14	10	210	220	8.63	8	4	5
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	4,090	4,060	-30	-0.73	0	290	290	8.42	8	4	6
35-9099	Food Preparation and Serving Related Workers, All Other	120	110	-10	-8.33	0	10	10	11.96	8	4	5

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Building, Grounds Cleaning & Maintenance Occs.

Occupational Code Title		Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>37-0000 Building and Grounds Cleaning and Maintenance Occupations</b>		<b>60,030</b>	<b>66,210</b>	<b>6,180</b>	<b>10.29</b>	<b>620</b>	<b>1,070</b>	<b>1,690</b>	<b>10.73</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>37-1000 Supervisors, Building and Grounds Cleaning &amp; Maint. Workers</b>		<b>5,780</b>	<b>6,150</b>	<b>370</b>	<b>6.40</b>	<b>40</b>	<b>80</b>	<b>120</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
37-1011	First-Line Super./Mgrs. of Housekeeping and Janitorial Workers	3,080	3,080	0	0.00	0	40	40	14.90	7	2	6
37-1012	First-Line Super./Mgrs. of Land., Lawn Service, & Grounds. Work.	2,700	3,070	370	13.70	40	40	80	17.17	7	2	6
<b>37-2000 Building Cleaning and Pest Control Workers</b>		<b>43,430</b>	<b>47,510</b>	<b>4,080</b>	<b>9.39</b>	<b>410</b>	<b>800</b>	<b>1,210</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	23,730	26,150	2,420	10.20	240	450	690	10.51	8	4	5
37-2012	Maids and Housekeeping Cleaners	18,960	20,450	1,490	7.86	150	320	470	9.17	8	4	5
37-2019	Building Cleaning Workers, All Other	*	*	*	*	*	*	*	11.05	7	4	5
37-2021	Pest Control Workers	*	*	*	*	*	*	*	13.70	7	4	4
<b>37-3000 Grounds Maintenance Workers</b>		<b>10,820</b>	<b>12,550</b>	<b>1,730</b>	<b>15.99</b>	<b>170</b>	<b>190</b>	<b>360</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
37-3011	Landscaping and Groundskeeping Workers	9,130	10,600	1,470	16.10	150	160	310	11.00	8	4	5
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	390	430	40	10.26	0	10	10	12.24	7	4	4
37-3013	Tree Trimmers and Pruners	1,120	1,330	210	18.75	20	20	40	11.42	7	4	5
37-3019	Grounds Maintenance Workers, All Other	180	190	10	5.56	0	0	0	12.68	8	4	5

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Personal Care & Service Occupations

Occupational Code Title		Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>39-0000 Personal Care and Service Occupations</b>		<b>59,700</b>	<b>74,830</b>	<b>15,130</b>	<b>25.34</b>	<b>1,520</b>	<b>1,550</b>	<b>3,070</b>	<b>10.91</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>39-1000 Supervisors, Personal Care and Service Workers</b>		<b>4,230</b>	<b>5,110</b>	<b>880</b>	<b>20.80</b>	<b>90</b>	<b>100</b>	<b>190</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
39-1011	Gaming Supervisors	60	60	0	0	0	0	0	18.50	7	2	6
39-1021	First-Line Supervisors/Mgrs. of Personal Service Workers	4,170	5,060	890	21.34	90	100	190	14.09	7	2	6
<b>39-2000 Animal Care and Service Workers</b>		<b>3,930</b>	<b>4,590</b>	<b>660</b>	<b>16.79</b>	<b>70</b>	<b>80</b>	<b>150</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
39-2011	Animal Trainers	730	700	-30	-4.11	0	10	10	17.73	7	4	4
39-2021	Nonfarm Animal Caretakers	3,200	3,900	700	21.88	70	70	140	10.15	8	4	5
<b>39-3000 Entertainment Attendants and Related Workers</b>		<b>3,560</b>	<b>3,940</b>	<b>380</b>	<b>10.67</b>	<b>40</b>	<b>200</b>	<b>240</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
39-3011	Gaming Dealers	*	*	*	*	*	*	*	9.31	7	4	4
39-3012	Gaming and Sports Book Writers and Runners	70	80	10	14	0	0	0	10.81	7	4	5
39-3021	Motion Picture Projectionists	100	90	-10	-10	0	0	0	9.96	8	4	5
39-3031	Ushers, Lobby Attendants, and Ticket Takers	1,330	1,410	80	6.02	10	80	90	8.76	8	4	5
39-3091	Amusement and Recreation Attendants	1,650	1,870	220	13.33	20	100	120	9.06	8	4	5
39-3092	Costume Attendants	*	*	*	*	*	*	*	12.61	7	4	5
39-3093	Locker Room, Coatroom, and Dressing Room Attendants	50	50	0	0	0	0	0	9.42	7	4	5
39-3099	Entertainment Attendants and Related Workers, All Other	300	380	80	26.67	10	20	30	n/a	7	4	5
<b>39-4000 Funeral Service Workers</b>		<b>1,540</b>	<b>1,720</b>	<b>180</b>	<b>11.69</b>	<b>20</b>	<b>50</b>	<b>70</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
39-4011	Embalmers	170	180	10	5.88	0	10	10	19.30	5	4	5
39-4021	Funeral Attendants	430	450	20	4.65	0	20	20	9.69	7	4	5
39-4831	Funeral Service Mgrs., Directors, Morticians, and Undertakers	930	1,090	160	17.20	20	20	40	26.14	4	4	2
<b>39-5000 Personal Appearance Workers</b>		<b>8,120</b>	<b>9,270</b>	<b>1,150</b>	<b>14.16</b>	<b>120</b>	<b>150</b>	<b>270</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
39-5011	Barbers	*	*	*	*	*	*	*	n/a	5	4	6
39-5012	Hairdressers, Hairstylists, and Cosmetologists	6,060	7,000	940	15.51	90	120	210	11.49	5	4	6
39-5092	Manicurists and Pedicurists	330	380	50	15	10	10	20	11.12	5	4	6
39-5093	Shampooers	*	*	*	*	*	*	*	n/a	8	4	5
39-5094	Skin Care Specialists	90	120	30	33.33	0	0	0	16.13	5	4	6
<b>39-6000 Transportation, Tourism, and Lodging Attendants</b>		<b>190</b>	<b>200</b>	<b>10</b>	<b>5.26</b>	<b>0</b>	<b>10</b>	<b>10</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
39-6011	Baggage Porters and Bellhops	110	130	20	18	0	0	0	9.60	7	4	5
39-6012	Concierges	70	80	10	14.29	0	0	0	12.63	7	4	4
39-7000	Tour and Travel Guides	500	540	40	8	0	20	20	n/a	n/a	n/a	n/a
39-7011	Tour Guides and Escorts	500	540	40	8.00	0	20	20	11.59	7	4	4

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Personal Care & Service Occs. (cont'd)

Occupational Code Title		Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>39-9000</b>	<b>Other Personal Care and Service Workers</b>	<b>37,640</b>	<b>49,450</b>	<b>11,810</b>	<b>31.38</b>	<b>1,180</b>	<b>940</b>	<b>2,120</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
39-9011	Child Care Workers	19,240	24,140	4,900	25.47	490	610	1,100	9.25	7	4	5
39-9021	Personal and Home Care Aides	6,820	11,430	4,610	67.60	460	50	510	8.95	8	4	5
39-9031	Fitness Trainers and Aerobics Instructors	*	*	*	*	*	*	*	13.24	7	4	5
39-9032	Recreation Workers	3,200	3,750	550	17.19	50	50	100	12.12	3	4	6
39-9041	Residential Advisors	3,820	4,880	1,060	27.75	110	150	260	10.85	6	3	5
39-9099	Personal Care and Service Workers, All Other	*	*	*	*	*	*	*	11.10	7	4	5

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Sales & Related Occupations

Occupational Code Title		Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>41-0000 Sales and Related Occupations</b>		<b>187,870</b>	<b>209,490</b>	<b>21,620</b>	<b>11.51</b>	<b>2,190</b>	<b>5,720</b>	<b>7,910</b>	<b>15.39</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>41-1000 Supervisors, Sales Workers</b>		<b>32,360</b>	<b>34,940</b>	<b>2,580</b>	<b>7.97</b>	<b>260</b>	<b>760</b>	<b>1,020</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
41-1011	First-Line Supervisors/Mgrs. of Retail Sales Workers	27,220	29,510	2,290	8.41	230	640	870	16.55	7	2	6
41-1012	First-Line Supervisors/Mgrs. of Non-Retail Sales Workers	5,140	5,440	300	5.84	30	130	160	27.07	7	1	6
<b>41-2000 Retail Sales Workers</b>		<b>105,750</b>	<b>116,960</b>	<b>11,210</b>	<b>10.60</b>	<b>1,120</b>	<b>3,730</b>	<b>4,850</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
41-2011	Cashiers	39,650	41,520	1,870	4.72	190	1,800	1,990	8.91	8	4	5
41-2021	Counter and Rental Clerks	5,890	6,290	400	7	40	130	170	9.93	8	4	5
41-2022	Parts Salespersons	3,550	4,030	480	13.52	50	130	180	12.64	8	4	4
41-2031	Retail Salespersons	56,670	65,110	8,440	14.89	850	1,670	2,520	10.79	8	4	5
<b>41-3000 Sales Representatives, Services</b>		<b>18,420</b>	<b>21,330</b>	<b>2,910</b>	<b>15.80</b>	<b>290</b>	<b>490</b>	<b>780</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
41-3011	Advertising Sales Agents	1,500	1,690	190	12.67	20	50	70	19.76	7	4	4
41-3021	Insurance Sales Agents	5,760	6,910	1,150	19.97	120	130	250	31.02	7	4	4
41-3031	Securities, Commodities, & Financial Services Sales Agents	3,490	3,960	470	13.47	50	100	150	29.70	3	4	4
41-3041	Travel Agents	530	580	50	9.43	0	10	10	13.56	7	4	4
41-3099	Sales Representatives, Services, All Other	7,140	8,190	1,050	14.71	110	210	320	26.88	7	4	5
<b>41-4000 Sales Representatives, Wholesale and Manufacturing</b>		<b>21,560</b>	<b>25,370</b>	<b>3,810</b>	<b>17.67</b>	<b>380</b>	<b>510</b>	<b>890</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
41-4011	Sales Reps., Wholesale & Mfg., Technical & Scientific Products	6,060	7,620	1,560	25.74	160	140	300	39.01	3	4	4
41-4012	Sales Reps., Wholesale & Mfg., Except Tech. & Sci. Products	15,500	17,750	2,250	14.52	230	370	600	28.16	7	4	4
<b>41-9000 Other Sales and Related Workers</b>		<b>9,780</b>	<b>10,900</b>	<b>1,120</b>	<b>11.45</b>	<b>140</b>	<b>240</b>	<b>380</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
41-9011	Demonstrators and Product Promoters	730	870	140	19.18	10	20	30	12.15	7	4	5
41-9012	Models	*	*	*	*	*	*	*	n/a	8	4	6
41-9021	Real Estate Brokers	380	430	50	13	10	10	20	21.84	7	2	6
41-9022	Real Estate Sales Agents	3,670	4,280	610	16.62	60	80	140	15.20	7	4	3
41-9031	Sales Engineers	*	*	*	*	*	*	*	36.59	3	4	4
41-9041	Telemarketers	670	770	100	14.93	10	10	20	11.09	8	4	5
41-9091	Door-To-Door Sales Work., News & Street Vend., & Related Work.	1,230	1,000	-230	-18.70	0	30	30	13.88	7	4	5
41-9799	Sales and Related Workers, All Other	2,820	3,270	450	15.96	50	70	120	14.53	7	4	4

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Office & Administrative Support Occs.

Occupational Code Title		Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>43-0000</b>	<b>Office and Administrative Support Occupations</b>	<b>288,300</b>	<b>317,310</b>	<b>29,010</b>	<b>10.06</b>	<b>3,150</b>	<b>6,390</b>	<b>9,540</b>	<b>14.70</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>43-1000</b>	<b>Supervisors, Office and Administrative Support Workers</b>	<b>20,390</b>	<b>23,110</b>	<b>2,720</b>	<b>13.34</b>	<b>270</b>	<b>550</b>	<b>820</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
43-1011	First-Line Super./Mgrs. of Office & Admin. Support Workers	20,390	23,110	2,720	13.34	270	550	820	20.78	7	2	6
<b>43-2000</b>	<b>Communications Equipment Operators</b>	<b>1,880</b>	<b>1,430</b>	<b>-450</b>	<b>-23.94</b>	<b>0</b>	<b>40</b>	<b>40</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
43-2011	Switchboard Operators, Including Answering Service	1,630	1,240	-390	-23.93	0	30	30	12.26	7	4	5
43-2021	Telephone Operators	*	*	*	*	*	*	*	15.57	7	4	5
43-2099	Communications Equipment Operators, All Other	*	*	*	*	*	*	*	17.98	7	4	5
<b>43-3000</b>	<b>Financial Clerks</b>	<b>51,400</b>	<b>58,000</b>	<b>6,600</b>	<b>12.84</b>	<b>660</b>	<b>940</b>	<b>1,600</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
43-3011	Bill and Account Collectors	4,630	5,180	550	11.88	60	90	150	14.64	7	4	4
43-3021	Billing and Posting Clerks and Machine Operators	11,050	13,330	2,280	20.63	230	190	420	15.23	7	4	5
43-3031	Bookkeeping, Accounting, and Auditing Clerks	25,310	28,590	3,280	12.96	330	280	610	15.51	7	4	4
43-3041	Gaming Cage Workers	*	*	*	*	*	*	*	n/a	7	4	5
43-3051	Payroll and Timekeeping Clerks	2,560	2,900	340	13.28	30	50	80	16.15	7	4	4
43-3061	Procurement Clerks	*	*	*	*	*	*	*	18.01	7	4	4
43-3071	Tellers	7,020	7,180	160	2.28	20	290	310	11.11	7	4	5
<b>43-4000</b>	<b>Information and Record Clerks</b>	<b>76,550</b>	<b>87,180</b>	<b>10,630</b>	<b>13.89</b>	<b>1,100</b>	<b>2,170</b>	<b>3,270</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
43-4011	Brokerage Clerks	1,090	1,100	10	0.92	0	30	30	17.21	7	4	4
43-4021	Correspondence Clerks	240	220	-20	-8.33	0	10	10	17.25	7	4	5
43-4031	Court, Municipal, and License Clerks	3,420	3,600	180	5.26	20	100	120	14.88	7	4	4
43-4041	Credit Authorizers, Checkers, and Clerks	210	220	10	4.76	0	10	10	16.73	7	4	5
43-4051	Customer Service Representatives	28,670	33,110	4,440	15.49	450	810	1,260	14.12	7	4	5
43-4061	Eligibility Interviewers, Government Programs	1,700	1,620	-80	-4.71	0	50	50	21.87	4	4	4
43-4071	File Clerks	2,730	2,550	-180	-6.59	0	70	70	11.38	7	4	5
43-4081	Hotel, Motel, and Resort Desk Clerks	3,130	3,470	340	10.86	40	130	170	9.10	7	4	5
43-4111	Interviewers, Except Eligibility and Loan	4,630	5,420	790	17.06	80	90	170	12.45	7	4	5
43-4121	Library Assistants, Clerical	1,360	1,490	130	9.56	10	60	70	11.23	7	4	5
43-4131	Loan Interviewers and Clerks	2,520	2,450	-70	-2.78	0	50	50	14.58	7	4	5
43-4141	New Accounts Clerks	630	640	10	1.59	0	20	20	13.87	7	4	5
43-4151	Order Clerks	2,680	2,880	200	7.46	20	80	100	13.41	7	4	5
43-4161	Human Resources Assist., Except Payroll & Timekeeping	2,230	2,370	140	6.28	10	60	70	18.10	7	4	5
43-4171	Receptionists and Information Clerks	16,960	21,700	4,740	27.95	470	510	980	11.44	7	4	5
43-4181	Reservation & Transportation Ticket Agents and Travel Clerks	1,830	1,840	10	0.55	0	40	40	17.43	7	4	5
43-4199	Information and Record Clerks, All Other	2,550	2,510	-40	-1.57	0	70	70	16.96	7	4	5

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Office & Administrative Support Occs. (cont'd)

Occupational Code Title		Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>43-5000</b>	<b>Material Record., Scheduling, Dispatch., &amp; Distributing Workers</b>	<b>57,780</b>	<b>59,530</b>	<b>1,750</b>	<b>3.03</b>	<b>300</b>	<b>1,450</b>	<b>1,750</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
43-5011	Cargo and Freight Agents	1,870	2,430	560	29.95	60	50	110	17.89	7	4	5
43-5021	Couriers and Messengers	1,100	1,190	90	8.18	10	30	40	11.05	7	4	5
43-5031	Police, Fire, and Ambulance Dispatchers	1,450	1,610	160	11.03	20	30	50	14.07	7	4	4
43-5032	Dispatchers, Except Police, Fire, and Ambulance	1,830	2,190	360	19.67	40	40	80	17.63	7	4	4
43-5041	Meter Readers, Utilities	880	920	40	4.55	0	30	30	13.53	7	4	5
43-5051	Postal Service Clerks	840	470	-370	-44.05	0	20	20	25.78	7	4	5
43-5052	Postal Service Mail Carriers	4,640	4,440	-200	-4.31	0	150	150	23.89	7	4	5
43-5053	Postal Serv. Mail Sorters, Processors, & Processing Mach. Ops.	1,590	890	-700	-44.03	0	10	10	21.26	7	4	5
43-5061	Production, Planning, and Expediting Clerks	3,460	3,770	310	8.96	30	90	120	20.21	7	4	4
43-5071	Shipping, Receiving, and Traffic Clerks	9,320	9,640	320	3.43	30	240	270	14.73	7	4	5
43-5081	Stock Clerks and Order Fillers	29,750	30,750	1,000	3.36	100	740	840	11.64	8	4	5
43-5111	Weighers, Measurers, Checkers, & Samplers, Recordkeeping	1,040	1,230	190	18.27	20	40	60	13.22	7	4	5
<b>43-6000</b>	<b>Secretaries and Administrative Assistants</b>	<b>45,370</b>	<b>49,520</b>	<b>4,150</b>	<b>9.15</b>	<b>420</b>	<b>610</b>	<b>1,030</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
43-6011	Executive Secretaries and Administrative Assistants	12,370	13,520	1,150	9.30	120	170	290	17.65	7	2	6
43-6012	Legal Secretaries	4,080	4,120	40	0.98	0	60	60	15.59	7	4	4
43-6013	Medical Secretaries	6,330	8,380	2,050	32.39	210	90	300	13.55	7	4	4
43-6014	Secretaries, Except Legal, Medical, and Executive	22,590	23,500	910	4.03	90	300	390	13.05	7	4	5
<b>43-9000</b>	<b>Other Office and Administrative Support Workers</b>	<b>34,940</b>	<b>38,540</b>	<b>3,600</b>	<b>10.30</b>	<b>400</b>	<b>640</b>	<b>1,040</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
43-9011	Computer Operators	*	*	*	*	*	*	*	16.30	7	4	4
43-9021	Data Entry Keyers	2,650	2,400	-250	-9.43	0	50	50	13.00	7	4	4
43-9022	Word Processors and Typists	430	360	-70	-16.28	0	0	0	15.26	7	4	5
43-9031	Desktop Publishers	170	150	-20	-11.76	0	0	0	18.17	4	4	5
43-9041	Insurance Claims and Policy Processing Clerks	1,890	2,000	110	5.82	10	60	70	16.77	7	4	4
43-9051	Mail Clerks & Mail Machine Operators, Except Postal Service	1,630	1,710	80	4.91	10	30	40	13.07	7	4	5
43-9061	Office Clerks, General	23,210	26,570	3,360	14.48	340	410	750	12.65	7	4	5
43-9071	Office Machine Operators, Except Computer	420	360	-60	-14.29	0	10	10	13.70	7	4	5
43-9081	Proofreaders and Copy Markers	190	190	0	0.00	0	0	0	15.02	3	4	4
43-9111	Statistical Assistants	*	*	*	*	*	*	*	n/a	3	4	6
43-9799	Office and Administrative Support Workers, All Other	2,860	3,290	430	15.03	40	60	100	15.38	7	4	5

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Farming, Fishing & Forestry Occupations

Occupational Code Title		Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>45-0000</b>	<b>Farming, Fishing, and Forestry Occupations</b>	<b>22,960</b>	<b>22,130</b>	<b>-830</b>	<b>-3.61</b>	<b>0</b>	<b>690</b>	<b>690</b>	<b>12.25</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>45-1000</b>	<b>Supervisors, Farming, Fishing, and Forestry Workers</b>	<b>1,000</b>	<b>970</b>	<b>-30</b>	<b>-3.00</b>	<b>0</b>	<b>30</b>	<b>30</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
45-1011	First-Line Super./Mgrs. of Farming, Fishing, & Forestry Workers	1,000	970	-30	-3.00	0	30	30	20.77	7	2	6
<b>45-2000</b>	<b>Agricultural Workers</b>	<b>21,370</b>	<b>20,540</b>	<b>-830</b>	<b>-4</b>	<b>0</b>	<b>650</b>	<b>650</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
45-2011	Agricultural Inspectors	*	*	*	*	*	*	*	n/a	3	4	4
45-2021	Animal Breeders	*	*	*	*	*	*	*	16.89	7	2	5
45-2041	Graders and Sorters, Agricultural Products	630	630	0	0.00	0	20	20	9.72	8	4	5
45-2091	Agricultural Equipment Operators	1,400	1,350	-50	-3.57	0	40	40	13.87	8	3	5
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	13,870	13,350	-520	-3.75	0	420	420	10.42	8	4	5
45-2093	Farmworkers, Farm and Ranch Animals	3,750	3,620	-130	-3.47	0	110	110	10.46	8	4	5
45-2099	Agricultural Workers, All Other	340	340	0	0.00	0	10	10	12.45	8	4	5
<b>45-3000</b>	<b>Fishing and Hunting Workers</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
45-3011	Fishers and Related Fishing Workers	*	*	*	*	*	*	*	n/a	8	4	4
<b>45-4000</b>	<b>Forest, Conservation, and Logging Workers</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>*</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
45-4011	Forest and Conservation Workers	*	*	*	*	*	*	*	n/a	7	4	4
45-4021	Fallers	*	*	*	*	*	*	*	11.74	7	4	4
45-4022	Logging Equipment Operators	220	240	20	9.09	0	10	10	12.87	7	4	4
45-4023	Log Graders and Scalers	230	250	20	9	0	10	10	16.00	7	4	4

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Construction & Extraction Occupations

Occupational Code Title		Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>47-0000 Construction and Extraction Occupations</b>		<b>81,900</b>	<b>96,230</b>	<b>14,330</b>	<b>17.50</b>	<b>1,430</b>	<b>1,800</b>	<b>3,230</b>	<b>18.92</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>47-1000 Supervisors, Construction and Extraction Workers</b>		<b>7,620</b>	<b>8,930</b>	<b>1,310</b>	<b>17.19</b>	<b>130</b>	<b>180</b>	<b>310</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
47-1011	First-Line Super./Mgrs. of Constr. Trades & Extraction Workers	7,620	8,930	1,310	17.19	130	180	310	27.06	7	1	6
<b>47-2000 Construction Trades Workers</b>		<b>58,370</b>	<b>68,930</b>	<b>10,560</b>	<b>18.09</b>	<b>1,060</b>	<b>1,230</b>	<b>2,290</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
47-2011	Boilermakers	*	*	*	*	*	*	*	24.32	7	4	2
47-2021	Brickmasons and Blockmasons	1,600	2,200	600	37.50	60	30	90	21.37	7	4	2
47-2022	Stonemasons	180	210	30	16.67	0	0	0	13.64	7	4	2
47-2031	Carpenters	10,770	12,690	1,920	17.83	190	230	420	17.34	7	4	2
47-2041	Carpet Installers	460	460	0	0.00	0	10	10	15.47	8	4	5
47-2042	Floor Layers, Except Carpet, Wood, and Hard Tiles	50	50	0	0.00	0	0	0	21.11	7	4	4
47-2043	Floor Sanders and Finishers	60	70	10	16.67	0	0	0	19.74	7	4	4
47-2044	Tile and Marble Setters	390	470	80	20.51	10	10	20	16.06	8	4	3
47-2051	Cement Masons and Concrete Finishers	1,380	1,760	380	27.54	40	20	60	16.82	8	4	4
47-2053	Terrazzo Workers and Finishers	50	60	10	20	0	0	0	19.41	7	4	2
47-2061	Construction Laborers	11,040	13,020	1,980	17.93	200	90	290	14.46	8	4	5
47-2071	Paving, Surfacing, and Tamping Equipment Operators	930	1,120	190	20.43	20	20	40	15.53	7	4	4
47-2073	Operating Engineers & Other Construction Equip. Operators	7,760	8,720	960	12	100	180	280	19.14	7	4	4
47-2081	Drywall and Ceiling Tile Installers	900	1,120	220	24.44	20	30	50	16.77	8	4	4
47-2082	Tapers	80	110	30	37.50	0	0	0	17.55	8	4	4
47-2111	Electricians	8,110	9,340	1,230	15.17	120	220	340	22.14	7	4	2
47-2121	Glaziers	540	750	210	38.89	20	20	40	14.54	7	4	2
47-2131	Insulation Workers, Floor, Ceiling, and Wall	440	520	80	18.18	10	20	30	16.01	8	4	5
47-2132	Insulation Workers, Mechanical	*	*	*	*	*	*	*	21.69	7	4	2
47-2141	Painters, Construction and Maintenance	3,100	3,600	500	16.13	50	70	120	15.37	8	4	4
47-2142	Paperhangers	*	*	*	*	*	*	*	18.40	7	4	4
47-2151	Pipelayers	890	1,090	200	22.47	20	30	50	17.63	7	4	5
47-2152	Plumbers, Pipefitters, and Steamfitters	5,990	7,320	1,330	22.20	130	170	300	21.49	7	4	2
47-2161	Plasterers and Stucco Masons	70	80	10	14.29	0	0	0	18.15	8	4	3
47-2171	Reinforcing Iron and Rebar Workers	110	150	40	36.36	0	0	0	25.04	7	4	2
47-2181	Roofers	1,200	1,350	150	12.50	20	30	50	15.78	8	4	4
47-2211	Sheet Metal Workers	1,000	1,160	160	16.00	20	20	40	19.09	7	4	2
47-2221	Structural Iron and Steel Workers	670	780	110	16.42	10	10	20	22.09	7	4	2

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Construction & Extraction Occs. (cont'd)

Occupational Code Title		Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>47-3000</b>	<b>Helpers, Construction Trades</b>	<b>3,320</b>	<b>4,600</b>	<b>1,280</b>	<b>38.55</b>	<b>130</b>	<b>90</b>	<b>220</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
47-3011	Helpers--Brick., Block., Stone., & Tile & Marble Setters	680	1,040	360	52.94	40	20	60	16.75	8	4	5
47-3012	Helpers--Carpenters	730	1,100	370	50.68	40	20	60	12.46	8	4	5
47-3013	Helpers--Electricians	960	1,200	240	25.00	20	30	50	11.70	7	4	5
47-3014	Helpers--Painters, Paperhangers, Plasterers, & Stucco Masons	80	90	10	13	0	0	0	9.58	8	4	5
47-3015	Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters	610	870	260	42.62	30	20	50	11.95	7	4	5
47-3016	Helpers--Roofers	140	140	0	0.00	0	0	0	12.22	8	4	5
47-3019	Helpers, Construction Trades, All Other	130	160	30	23.08	0	0	0	12.84	8	4	5
<b>47-4000</b>	<b>Other Construction and Related Workers</b>	<b>6,120</b>	<b>6,870</b>	<b>750</b>	<b>12.25</b>	<b>80</b>	<b>170</b>	<b>250</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
47-4011	Construction and Building Inspectors	940	1,100	160	17.02	20	30	50	22.50	7	1	4
47-4021	Elevator Installers and Repairers	310	340	30	9.68	0	10	10	30.17	7	4	2
47-4031	Fence Erectors	1,480	1,740	260	17.57	30	40	70	10.05	7	4	4
47-4041	Hazardous Materials Removal Workers	380	490	110	28.95	10	10	20	15.00	7	4	4
47-4051	Highway Maintenance Workers	2,170	2,300	130	5.99	10	60	70	12.83	7	4	4
47-4061	Rail-Track Laying and Maintenance Equipment Operators	290	300	10	3	0	10	10	21.15	7	4	4
47-4071	Septic Tank Servicers and Sewer Pipe Cleaners	240	290	50	20.83	10	10	20	13.08	8	4	4
47-4799	Construction and Related Workers, All Other	290	320	30	10.34	0	10	10	15.30	7	4	4
<b>47-5000</b>	<b>Extraction Workers</b>	<b>6,460</b>	<b>6,900</b>	<b>440</b>	<b>6.81</b>	<b>50</b>	<b>140</b>	<b>190</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
47-5011	Derrick Operators, Oil and Gas	*	*	*	*	*	*	*	12.74	8	4	5
47-5012	Rotary Drill Operators, Oil and Gas	150	180	30	20.00	0	0	0	26.44	8	4	4
47-5013	Service Unit Operators, Oil, Gas, and Mining	180	210	30	16.67	0	0	0	16.65	8	4	4
47-5021	Earth Drillers, Except Oil and Gas	640	670	30	4.69	0	10	10	21.22	7	4	4
47-5031	Explosives Workers, Ordnance Handling Experts, & Blasters	580	560	-20	-3.45	0	10	10	19.99	7	4	4
47-5041	Continuous Mining Machine Operators	480	520	40	8.33	0	10	10	22.90	7	4	4
47-5042	Mine Cutting and Channeling Machine Operators	*	*	*	*	*	*	*	*	7	4	4
47-5049	Mining Machine Operators, All Other	*	*	*	*	*	*	*	21.07	7	4	4
47-5051	Rock Splitters, Quarry	*	*	*	*	*	*	*	14.10	7	4	4
47-5061	Roof Bolters, Mining	1,150	1,270	120	10	10	20	30	22.72	7	4	4
47-5071	Roustabouts, Oil and Gas	160	180	20	12.50	0	0	0	13.82	8	4	4
47-5081	Helpers--Extraction Workers	1,160	1,230	70	6.03	10	20	30	17.16	7	4	5
47-5099	Extraction Workers, All Other	1,340	1,380	40	2.99	0	30	30	19.53	7	4	4

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Installation, Maintenance & Repair Occs.

Occupational Code Title		Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>49-0000 Installation, Maintenance, and Repair Occupations</b>		<b>83,480</b>	<b>95,650</b>	<b>12,170</b>	<b>14.58</b>	<b>1,220</b>	<b>1,870</b>	<b>3,090</b>	<b>19.32</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>49-1000 Supervisors of Installation, Maintenance, and Repair Workers</b>		<b>7,680</b>	<b>8,480</b>	<b>800</b>	<b>10.42</b>	<b>80</b>	<b>200</b>	<b>280</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
49-1011	First-Line Super./Mgrs. of Mechanics, Installers, & Repairers	7,680	8,480	800	10.42	80	200	280	25.83	7	2	6
<b>49-2000 Electrical &amp; Electronic Equip. Mechanics, Installers, &amp; Repairers</b>		<b>10,170</b>	<b>11,730</b>	<b>1,560</b>	<b>15.34</b>	<b>160</b>	<b>220</b>	<b>380</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
49-2011	Computer, Automated Teller, and Office Machine Repairers	4,030	4,890	860	21.34	90	100	190	17.00	5	4	6
49-2021	Radio Mechanics	130	150	20	15	0	0	0	23.92	4	4	4
49-2022	Telecomm. Equip. Installers & Repairers, Except Line Installers	2,580	2,970	390	15.12	40	40	80	22.81	5	4	4
49-2091	Avionics Technicians	*	*	*	*	*	*	*	20.73	5	4	6
49-2092	Electric Motor, Power Tool, and Related Repairers	450	450	0	0.00	0	0	0	15.23	5	4	3
49-2093	Electrical & Electronics Installers & Repairers, Transp. Equip.	180	180	0	0	0	0	0	22.43	5	4	3
49-2094	Electric. & Electron. Repairers, Commercial & Industrial Equip.	1,010	1,040	30	2.97	0	30	30	24.22	5	4	3
49-2095	Electric. & Electron. Repairers, Powerhouse, Substation, & Relay	330	330	0	0.00	0	10	10	29.08	5	4	3
49-2096	Electronic Equipment Installers & Repairers, Motor Vehicles	*	*	*	*	*	*	*	19.51	5	4	5
49-2097	Electronic Home Entertainment Equip. Installers & Repairers	640	680	40	6.25	0	20	20	16.43	5	4	6
49-2098	Security and Fire Alarm Systems Installers	690	890	200	28.99	20	20	40	21.54	7	4	4
<b>49-3000 Vehicle and Mobile Equipment Mechanics, Installers</b>		<b>22,590</b>	<b>25,820</b>	<b>3,230</b>	<b>14.30</b>	<b>320</b>	<b>570</b>	<b>890</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
49-3011	Aircraft Mechanics and Service Technicians	1,300	1,500	200	15.38	20	40	60	29.72	5	4	6
49-3021	Automotive Body and Related Repairers	1,770	2,010	240	13.56	30	40	70	19.34	7	4	4
49-3022	Automotive Glass Installers and Repairers	270	330	60	22.22	10	10	20	15.47	7	4	4
49-3023	Automotive Service Technicians and Mechanics	9,110	10,380	1,270	13.94	130	240	370	15.19	7	4	3
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	4,220	4,780	560	13.27	60	90	150	18.12	7	4	3
49-3041	Farm Equipment Mechanics	760	870	110	14.47	10	20	30	13.57	7	4	3
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	2,230	2,550	320	14.35	30	60	90	20.33	7	4	3
49-3043	Rail Car Repairers	*	*	*	*	*	*	*	21.50	7	4	3
49-3051	Motorboat Mechanics	220	260	40	18.18	0	10	10	12.67	7	4	3
49-3052	Motorcycle Mechanics	230	290	60	26.09	10	10	20	15.72	7	4	3
49-3053	Outdoor Power Equipment & Other Small Engine Mechanics	500	590	90	18.00	10	10	20	14.19	7	4	4
49-3091	Bicycle Repairers	*	*	*	*	*	*	*	12.31	7	4	4
49-3092	Recreational Vehicle Service Technicians	150	180	30	20	0	0	0	14.54	7	4	3
49-3093	Tire Repairers and Changers	1,460	1,660	200	13.70	20	40	60	11.21	7	4	4

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Installation, Maintenance & Repair Occs. (cont'd)

Occupational		Employment*		Change		Average Annual			Average Wage	Education/Training		
		2010	2020	2010-2020		Job Openings, 2010-2020				2011	Required~	
Code	Title	Estimated	Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>49-9000</b>	<b>Other Installation, Maintenance, and Repair Occupations</b>	<b>43,040</b>	<b>49,620</b>	<b>6,580</b>	<b>15.29</b>	<b>660</b>	<b>880</b>	<b>1,540</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
49-9011	Mechanical Door Repairers	80	90	10	13	0	0	0	15.63	7	4	4
49-9012	Control & Valve Installers & Repairers, Except Mechanical Door	580	630	50	8.62	10	10	20	18.86	7	4	4
49-9021	Heating, Air Conditioning, & Refrigeration Mechanics & Installers	3,940	5,320	1,380	35.03	140	70	210	18.06	5	4	3
49-9031	Home Appliance Repairers	810	890	80	9.88	10	20	30	16.08	7	4	4
49-9041	Industrial Machinery Mechanics	7,730	9,290	1,560	20.18	160	150	310	23.35	7	4	3
49-9043	Maintenance Workers, Machinery	1,690	1,780	90	5.33	10	30	40	18.94	7	4	4
49-9044	Millwrights	600	540	-60	-10.00	0	10	10	25.24	7	4	3
49-9045	Refractory Materials Repairers, Except Brickmasons	*	*	*	*	*	*	*	n/a	5	4	4
49-9051	Electrical Power-Line Installers and Repairers	2,170	2,530	360	17	40	80	120	24.70	7	4	3
49-9052	Telecommunications Line Installers and Repairers	1,540	1,790	250	16.23	30	30	60	19.46	7	4	3
49-9061	Camera and Photographic Equipment Repairers	*	*	*	*	*	*	*	16.25	4	4	3
49-9062	Medical Equipment Repairers	1,020	1,420	400	39	40	30	70	22.16	4	4	4
49-9063	Musical Instrument Repairers and Tuners	80	90	10	12.50	0	0	0	15.18	5	4	3
49-9064	Watch Repairers	*	*	*	*	*	*	*	17.15	7	4	3
49-9069	Precision Instrument and Equipment Repairers, All Other	260	270	10	3.85	0	10	10	28.20	4	4	3
49-9071	Maintenance and Repair Workers, General	17,650	19,440	1,790	10.14	180	330	510	16.56	7	4	4
49-9091	Coin, Vending, & Amusement Machine Servicers & Repairers	470	590	120	25.53	10	10	20	13.46	7	4	5
49-9092	Commercial Divers	*	*	*	*	*	*	*	n/a	5	4	4
49-9094	Locksmiths and Safe Repairers	*	*	*	*	*	*	*	14.30	7	4	3
49-9095	Manufactured Building and Mobile Home Installers	130	140	10	8	0	0	0	12.17	7	4	4
49-9096	Riggers	80	80	0	0.00	0	0	0	n/a	7	4	5
49-9097	Signal and Track Switch Repairers	*	*	*	*	*	*	*	n/a	5	4	4
49-9098	Helpers--Installation, Maintenance, and Repair Workers	1,280	1,510	230	18	20	60	80	13.73	7	4	4
49-9799	Installation, Maintenance, and Repair Workers, All Other	2,170	2,360	190	9	20	40	60	18.11	7	4	4

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Production Occupations

Occupational Code	Occupational Title	Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>51-0000 Production Occupations</b>		<b>159,740</b>	<b>167,380</b>	<b>7,640</b>	<b>4.78</b>	<b>970</b>	<b>3,160</b>	<b>4,130</b>	<b>16.35</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>51-1000</b>	<b>Supervisors, Production Workers</b>	<b>11,250</b>	<b>11,580</b>	<b>330</b>	<b>2.93</b>	<b>30</b>	<b>150</b>	<b>180</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
51-1011	First-Line Super./Mgrs. of Production & Operating Workers	11,250	11,580	330	2.93	30	150	180	24.68	5	2	6
<b>51-2000</b>	<b>Assemblers and Fabricators</b>	<b>38,880</b>	<b>41,300</b>	<b>2,420</b>	<b>6.22</b>	<b>250</b>	<b>760</b>	<b>1,010</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
51-2011	Aircraft Structure, Surfaces, Rigging, & Systems Assemblers	*	*	*	*	*	*	*	16.08	7	4	4
51-2021	Coil Winders, Tapers, and Finishers	240	210	-30	-12.50	0	0	0	13.34	7	4	5
51-2022	Electrical and Electronic Equipment Assemblers	1,040	1,050	10	0.96	0	20	20	14.58	7	4	5
51-2023	Electromechanical Equipment Assemblers	450	460	10	2.22	0	10	10	17.57	7	4	5
51-2031	Engine and Other Machine Assemblers	160	170	10	6.25	0	0	0	19.39	7	4	5
51-2041	Structural Metal Fabricators and Fitters	380	430	50	13.16	10	10	20	16.56	7	4	4
51-2091	Fiberglass Laminators and Fabricators	*	*	*	*	*	*	*	16.98	7	4	4
51-2092	Team Assemblers	30,100	31,760	1,660	5.51	170	600	770	14.59	7	4	4
51-2099	Assemblers and Fabricators, All Other	6,310	7,040	730	12	70	130	200	19.49	7	4	4
<b>51-3000</b>	<b>Food Processing Workers</b>	<b>8,500</b>	<b>9,440</b>	<b>940</b>	<b>11.06</b>	<b>90</b>	<b>240</b>	<b>330</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
51-3011	Bakers	1,390	1,560	170	12.23	20	40	60	10.59	8	4	3
51-3021	Butchers and Meat Cutters	1,610	1,740	130	8.07	10	50	60	13.69	8	4	3
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	2,420	2,880	460	19.01	50	70	120	11.21	8	4	5
51-3023	Slaughterers and Meat Packers	720	800	80	11.11	10	20	30	11.60	8	4	4
51-3091	Food & Tobacco Roast., Baking, & Drying Mach. Ops. & Tenders	270	300	30	11.11	0	10	10	16.37	8	4	4
51-3092	Food Batchmakers	1,530	1,570	40	2.61	0	40	40	16.93	7	3	5
51-3093	Food Cooking Machine Operators and Tenders	560	590	30	5.36	0	20	20	11.27	7	3	5
<b>51-4000</b>	<b>Metal Workers and Plastic Workers</b>	<b>33,260</b>	<b>35,640</b>	<b>2,380</b>	<b>7.16</b>	<b>240</b>	<b>630</b>	<b>870</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
51-4011	Computer-Controlled Machine Tool Operators, Metal & Plastic	2,090	2,410	320	15.31	30	40	70	16.54	7	4	4
51-4012	Numerical Tool and Process Control Programmers	120	130	10	8.33	0	0	0	21.35	7	4	4
51-4021	Extruding and Drawing Machine SOT^, Metal and Plastic	1,490	1,580	90	6.04	10	30	40	16.74	7	4	4
51-4022	Forging Machine SOT^, Metal and Plastic	810	810	0	0.00	0	20	20	17.11	7	4	4
51-4023	Rolling Machine SOT^, Metal and Plastic	600	660	60	10.00	10	10	20	17.97	7	4	4

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

^SOT = Setters, Operators and Tenders      \* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Production Occupations (cont'd)

Occupational Code Title		Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
51-4031	Cutting, Punching, and Press Machine SOT^, Metal & Plastic	3,780	3,840	60	1.59	10	30	40	14.60	7	4	4
51-4032	Drilling and Boring Machine Tool SOT^, Metal and Plastic	390	360	-30	-7.69	0	0	0	16.34	7	4	4
51-4033	Grind., Lap., Polish., & Buff. Mach. Tool SOT^, Metal & Plastic	930	970	40	4.30	0	20	20	15.60	7	4	4
51-4034	Lathe and Turning Machine Tool SOT^, Metal and Plastic	520	520	0	0.00	0	20	20	17.35	7	4	4
51-4035	Milling and Planing Machine SOT^, Metal and Plastic	340	330	-10	-2.94	0	10	10	16.56	7	4	4
51-4041	Machinists	6,580	7,160	580	8.81	60	120	180	19.54	7	4	3
51-4051	Metal-Refining Furnace Operators and Tenders	900	1,060	160	17.78	20	20	40	20.22	7	4	4
51-4052	Pourers and Casters, Metal	340	360	20	5.88	0	10	10	16.82	7	4	4
51-4061	Model Makers, Metal and Plastic	*	*	*	*	*	*	*	20.19	7	4	3
51-4062	Patternmakers, Metal and Plastic	*	*	*	*	*	*	*	n/a	7	4	3
51-4071	Foundry Mold and Coremakers	*	*	*	*	*	*	*	n/a	7	4	4
51-4072	Molding, Coremaking, & Casting Machine SOT^, Metal and Plastic	2,580	2,650	70	2.71	10	40	50	14.14	7	4	4
51-4081	Multiple Machine Tool SOT^, Metal and Plastic	1,220	1,230	10	0.82	0	20	20	14.13	7	4	4
51-4111	Tool and Die Makers	1,420	1,420	0	0.00	0	10	10	22.43	7	4	3
51-4121	Welders, Cutters, Solderers, and Brazers	6,590	7,420	830	12.59	80	180	260	16.60	7	3	4
51-4122	Welding, Soldering, and Brazing Machine SOT^	1,190	1,280	90	7.56	10	30	40	16.67	7	4	4
51-4191	Heat Treating Equipment SOT^, Metal and Plastic	270	270	0	0.00	0	20	20	15.17	7	4	4
51-4192	Lay-Out Workers, Metal and Plastic	80	90	10	12.50	0	0	0	15.89	7	4	4
51-4193	Plating and Coating Machine SOT^, Metal and Plastic	300	320	20	6.67	0	10	10	13.69	7	4	4
51-4194	Tool Grinders, Filers, and Sharpeners	270	300	30	11.11	0	0	0	16.83	7	4	4
51-4199	Metal Workers and Plastic Workers, All Other	360	360	0	0.00	0	0	0	15.16	7	4	4
<b>51-5000</b>	<b>Printing Workers</b>	<b>5,270</b>	<b>4,900</b>	<b>-370</b>	<b>-7.02</b>	<b>0</b>	<b>120</b>	<b>120</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
51-5111	Prepress Technicians and Workers	750	620	-130	-17.33	0	20	20	17.25	5	4	6
51-5112	Printing Press Operators and Job Printers	3,350	3,190	-160	-4.78	0	70	70	17.71	7	4	4
51-5113	Print Binding and Finishing Workers	1,160	1,090	-70	-6.03	0	40	40	15.80	7	4	5

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

^SOT = Setters, Operators and Tenders \* Employment under 50 and unreliable data suppressed n/a - Not Available ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Production Occupations (cont'd)

Occupational Code Title		Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>51-6000</b>	<b>Textile, Apparel, and Furnishings Workers</b>	<b>9,140</b>	<b>8,170</b>	<b>-970</b>	<b>-10.61</b>	<b>10</b>	<b>110</b>	<b>120</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
51-6011	Laundry and Dry-Cleaning Workers	2,640	2,680	40	1.52	0	50	50	10.03	8	4	5
51-6021	Pressers, Textile, Garment, and Related Materials	630	510	-120	-19.05	0	0	0	9.45	8	4	5
51-6031	Sewing Machine Operators	3,870	3,130	-740	-19.12	0	20	20	10.71	8	4	5
51-6041	Shoe and Leather Workers and Repairers	*	*	*	*	*	*	*	n/a	7	4	4
51-6051	Sewers, Hand	120	110	-10	-8	0	0	0	12.24	8	4	4
51-6052	Tailors, Dressmakers, and Custom Sewers	420	390	-30	-7	0	10	10	11.36	8	4	4
51-6061	Textile Bleaching and Dyeing Machine Operators and Tenders	*	*	*	*	*	*	*	n/a	7	4	5
51-6062	Textile Cutting Machine SOT^	*	*	*	*	*	*	*	11.25	7	4	4
51-6063	Textile Knitting and Weaving Machine SOT^	90	70	-20	-22.22	0	0	0	12.51	7	4	4
51-6064	Textile Winding, Twisting, and Drawing Out Machine SOT^	*	*	*	*	*	*	*	17.02	7	4	4
51-6091	Extruding & Forming Machine SOT^, Synthetic & Glass Fibers	630	680	50	8	10	10	20	16.46	7	4	4
51-6092	Fabric and Apparel Patternmakers	*	*	*	*	*	*	*	n/a	7	4	4
51-6093	Upholsterers	140	130	-10	-7	0	0	0	14.70	7	4	4
51-6099	Textile, Apparel, and Furnishings Workers, All Other	*	*	*	*	*	*	*	n/a	7	4	5
<b>51-7000</b>	<b>Woodworkers</b>	<b>4,340</b>	<b>4,830</b>	<b>490</b>	<b>11</b>	<b>50</b>	<b>80</b>	<b>130</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
51-7011	Cabinetmakers and Bench Carpenters	820	840	20	2.44	0	20	20	14.40	7	4	4
51-7021	Furniture Finishers	250	230	-20	-8.00	0	10	10	13.33	7	4	5
51-7041	Sawing Machine SOT^, Wood	1,230	1,460	230	18.70	20	30	50	11.76	7	4	5
51-7042	Woodworking Machine SOT^, Except Sawing	1,700	1,980	280	16	30	10	40	12.51	7	4	5
51-7099	Woodworkers, All Other	350	330	-20	-6	0	10	10	10.98	7	4	4

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# Kentucky Statewide Occupational Employment Outlook

## Production Occupations (cont'd)

Occupational Code Title		Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>51-8000</b>	<b>Plant and System Operators</b>	<b>4,710</b>	<b>4,630</b>	<b>-80</b>	<b>-1.70</b>	<b>10</b>	<b>140</b>	<b>150</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
51-8012	Power Distributors and Dispatchers	*	*	*	*	*	*	*	37.03	7	4	3
51-8013	Power Plant Operators	740	720	-20	-2.70	0	30	30	30.56	7	4	3
51-8021	Stationary Engineers and Boiler Operators	300	320	20	6.67	0	10	10	19.80	7	4	3
51-8031	Water & Liquid Waste Treatment Plant & System Operators	1,510	1,630	120	7.95	10	40	50	16.45	7	4	3
51-8091	Chemical Plant and System Operators	970	840	-130	-13.40	0	30	30	27.42	7	4	3
51-8092	Gas Plant Operators	290	270	-20	-6.90	0	10	10	26.75	7	4	3
51-8093	Petroleum Pump System Operators, Refinery Ops., & Gaugers	*	*	*	*	*	*	*	32.26	7	4	3
51-8099	Plant and System Operators, All Other	330	320	-10	-3.03	0	10	10	25.88	7	4	3
<b>51-9000</b>	<b>Other Production Occupations</b>	<b>44,400</b>	<b>46,880</b>	<b>2,480</b>	<b>5.59</b>	<b>280</b>	<b>930</b>	<b>1,210</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
51-9011	Chemical Equipment Operators and Tenders	1,240	1,160	-80	-6.45	0	20	20	23.52	7	4	4
51-9012	Separating, Filtering, Clarifying, Precipitating, & Still Machine SOT^	980	1,010	30	3.06	0	20	20	20.76	7	4	4
51-9021	Crushing, Grinding, and Polishing Machine SOT^	700	750	50	7.14	10	20	30	15.54	7	4	4
51-9022	Grinding and Polishing Workers, Hand	270	270	0	0.00	0	10	10	13.69	8	4	4
51-9023	Mixing and Blending Machine SOT^	1,700	1,680	-20	-1.18	0	50	50	15.76	7	4	4
51-9031	Cutters and Trimmers, Hand	110	90	-20	-18.18	0	0	0	17.63	8	4	5
51-9032	Cutting and Slicing Machine SOT^	1,580	1,590	10	0.63	0	40	40	15.21	7	4	5
51-9041	Extruding, Forming, Pressing, and Compacting Machine SOT^	1,680	1,750	70	4.17	10	40	50	16.58	7	4	4
51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	440	430	-10	-2.27	0	10	10	17.11	7	4	4
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	7,860	8,460	600	7.63	60	170	230	16.75	7	4	4
51-9071	Jewelers and Precious Stone and Metal Workers	610	570	-40	-6.56	0	10	10	16.86	7	4	3
51-9081	Dental Laboratory Technicians	370	370	0	0.00	0	10	10	19.62	7	4	4
51-9082	Medical Appliance Technicians	*	*	*	*	*	*	*	16.81	7	4	3
51-9083	Ophthalmic Laboratory Technicians	220	250	30	13.64	0	10	10	13.43	7	4	4
51-9111	Packaging and Filling Machine Operators and Tenders	4,930	5,020	90	1.83	10	80	90	15.09	7	4	4
51-9121	Coating, Painting, and Spraying Machine SOT^	1,710	1,790	80	4.68	10	40	50	15.86	7	4	4
51-9122	Painters, Transportation Equipment	700	740	40	5.71	10	20	30	20.94	7	4	4
51-9123	Painting, Coating, and Decorating Workers	230	270	40	17.39	0	10	10	11.65	7	4	4
51-9151	Photographic Process Workers & Processing Machine Operators	570	540	-30	-5.26	0	10	10	10.77	7	4	5

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Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Production Occupations (cont'd)

Occupational Code Title		Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
51-9191	Cementing and Gluing Machine Operators and Tenders	230	240	10	4.35	0	0	0	13.29	7	4	4
51-9192	Cleaning, Washing, & Metal Pickling Equipment Ops. & Tenders	180	180	0	0.00	0	0	0	14.74	8	4	4
51-9193	Cooling and Freezing Equipment Operators and Tenders	110	120	10	9	0	0	0	15.64	7	4	4
51-9194	Etchers and Engravers	*	*	*	*	*	*	*	12.33	7	4	4
51-9195	Molders, Shapers, and Casters, Except Metal and Plastic	660	760	100	15.15	10	20	30	14.23	7	4	3
51-9196	Paper Goods Machine SOT^	1,380	1,300	-80	-5.80	0	10	10	15.75	7	4	4
51-9197	Tire Builders	100	90	-10	-10.00	0	0	0	13.02	7	4	4
51-9198	Helpers--Production Workers	9,670	10,740	1,070	11.07	110	160	270	12.43	8	4	5
51-9399	Production Workers, All Other	5,970	6,470	500	8.38	50	160	210	14.16	7	4	4

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Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Transportation & Material Moving Occs.

Occupational Code Title		Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>53-0000 Transportation and Material Moving Occupations</b>		<b>159,830</b>	<b>183,850</b>	<b>24,020</b>	<b>15.03</b>	<b>2,410</b>	<b>4,090</b>	<b>6,500</b>	<b>16.56</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>53-1000</b>	<b>Supervisors, Transportation and Material Moving Workers</b>	<b>7,050</b>	<b>8,720</b>	<b>1,670</b>	<b>23.69</b>	<b>170</b>	<b>150</b>	<b>320</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
53-1011	Aircraft Cargo Handling Supervisors	*	*	*	*	*	*	*	25.42	7	2	6
53-1021	First-Line Super./Mgrs. of Helpers, Laborers, & Mat. Movers, Hand	*	*	*	*	*	*	*	21.60	7	2	6
53-1031	First-Line Super/Mgrs of Transp & Mat.-Moving Mach. & Vehic Ops	3,820	4,470	650	17.02	70	80	150	23.24	7	2	6
<b>53-2000</b>	<b>Air Transportation Workers</b>	<b>5,310</b>	<b>6,080</b>	<b>770</b>	<b>14.50</b>	<b>80</b>	<b>180</b>	<b>260</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
53-2011	Airline Pilots, Copilots, and Flight Engineers	*	*	*	*	*	*	*	n/a	3	2	4
53-2012	Commercial Pilots	290	370	80	27.59	10	10	20	n/a	5	4	6
53-2021	Air Traffic Controllers	*	*	*	*	*	*	*	n/a	4	4	3
53-2022	Airfield Operations Specialists	*	*	*	*	*	*	*	23.06	7	4	3
53-2031	Flight Attendants	*	*	*	*	*	*	*	n/a	7	4	4
<b>53-3000</b>	<b>Motor Vehicle Operators</b>	<b>61,520</b>	<b>70,680</b>	<b>9,160</b>	<b>15</b>	<b>920</b>	<b>1,190</b>	<b>2,110</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
53-3011	Ambulance Drivers & Attend., Except Emergency Medical Techs.	*	*	*	*	*	*	*	11.12	7	4	4
53-3021	Bus Drivers, Transit and Intercity	1,480	1,660	180	12.16	20	30	50	13.79	7	4	4
53-3022	Bus Drivers, School	9,440	9,420	-20	-0.21	0	180	180	15.16	7	4	4
53-3031	Driver/Sales Workers	6,030	6,740	710	11.77	70	120	190	12.93	7	4	5
53-3032	Truck Drivers, Heavy and Tractor-Trailer	27,810	33,180	5,370	19.31	540	550	1,090	18.48	7	2	5
53-3033	Truck Drivers, Light or Delivery Services	12,820	14,880	2,060	16.07	210	260	470	15.13	7	4	5
53-3041	Taxi Drivers and Chauffeurs	3,170	3,870	700	22.08	70	40	110	9.41	8	4	5
53-3099	Motor Vehicle Operators, All Other	*	*	*	*	*	*	*	17.10	7	4	5
<b>53-4000</b>	<b>Rail Transportation Workers</b>	<b>3,250</b>	<b>3,280</b>	<b>30</b>	<b>1</b>	<b>10</b>	<b>110</b>	<b>120</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
53-4011	Locomotive Engineers	*	*	*	*	*	*	*	n/a	7	2	4
53-4012	Locomotive Firers	*	*	*	*	*	*	*	n/a	7	4	5
53-4013	Rail Yard Engineers, Dinkey Operators, and Hostlers	*	*	*	*	*	*	*	17.03	7	4	4
53-4021	Railroad Brake, Signal, and Switch Operators	*	*	*	*	*	*	*	20.53	7	4	4
53-4031	Railroad Conductors and Yardmasters	990	1,030	40	4	0	30	30	22.37	7	4	4
53-4099	Rail Transportation Workers, All Other	*	*	*	*	*	*	*	19.86	7	4	4
<b>53-5000</b>	<b>Water Transportation Workers</b>	<b>2,600</b>	<b>3,140</b>	<b>540</b>	<b>20.77</b>	<b>50</b>	<b>110</b>	<b>160</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
53-5011	Sailors and Marine Oilers	1,150	1,410	260	22.61	30	50	80	14.53	8	4	5
53-5021	Captains, Mates, and Pilots of Water Vessels	1,170	1,390	220	19	20	40	60	34.52	3	4	6
53-5022	Motorboat Operators	*	*	*	*	*	*	*	20.51	7	4	5
53-5031	Ship Engineers	*	*	*	*	*	*	*	35.07	3	4	6

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\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Kentucky Statewide Occupational Employment Outlook

## Transportation & Material Moving Occs. (cont'd)

Occupational Code Title		Employment*		Change 2010-2020		Average Annual Job Openings, 2010-2020			Average Wage 2011	Education/Training Required~		
		2010 Estimated	2020 Projected	Number	Percent	Growth	Separations	Total		Educ.	Exper.	OJT
<b>53-6000</b>	<b>Other Transportation Workers</b>	<b>3,130</b>	<b>3,710</b>	<b>580</b>	<b>18.53</b>	<b>60</b>	<b>100</b>	<b>160</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
53-6011	Bridge and Lock Tenders	60	60	0	0	0	0	0	n/a	8	4	5
53-6021	Parking Lot Attendants	550	530	-20	-3.64	0	20	20	10.65	8	4	5
53-6031	Service Station Attendants	1,790	2,270	480	26.82	50	60	110	10.67	8	4	5
53-6041	Traffic Technicians	*	*	*	*	*	*	*	18.68	8	4	5
53-6051	Transportation Inspectors	330	380	50	15.15	10	10	20	32.46	6	4	5
53-6061	Transportation Attendants, Except Flight Attendants	*	*	*	*	*	*	*	n/a	7	4	5
53-6099	Transportation Workers, All Other	370	450	80	21.62	10	10	20	15.28	7	4	5
<b>53-7000</b>	<b>Material Moving Workers</b>	<b>76,960</b>	<b>88,240</b>	<b>11,280</b>	<b>14.66</b>	<b>1,130</b>	<b>2,270</b>	<b>3,400</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
53-7011	Conveyor Operators and Tenders	670	730	60	8.96	10	20	30	17.78	8	4	5
53-7021	Crane and Tower Operators	770	840	70	9	10	20	30	18.39	8	2	3
53-7031	Dredge Operators	*	*	*	*	*	*	*	n/a	8	4	5
53-7032	Excavating and Loading Machine and Dragline Operators	2,180	2,540	360	16.51	40	60	100	18.77	8	2	4
53-7033	Loading Machine Operators, Underground Mining	420	450	30	7	0	10	10	22.50	8	4	5
53-7041	Hoist and Winch Operators	*	*	*	*	*	*	*	26.24	8	4	4
53-7051	Industrial Truck and Tractor Operators	14,200	16,130	1,930	13.59	190	400	590	14.81	8	3	5
53-7061	Cleaners of Vehicles and Equipment	4,240	4,990	750	17.69	80	130	210	10.57	8	4	5
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	37,440	43,920	6,480	17.31	650	1,200	1,850	11.82	8	4	5
53-7063	Machine Feeders and Offbearers	3,740	3,810	70	1.87	10	60	70	13.33	8	4	5
53-7064	Packers and Packagers, Hand	9,660	10,600	940	10	90	280	370	10.83	8	4	5
53-7071	Gas Compressor and Gas Pumping Station Operators	*	*	*	*	*	*	*	n/a	8	4	4
53-7072	Pump Operators, Except Wellhead Pumpers	50	50	0	0.00	0	0	0	18.81	8	4	4
53-7073	Wellhead Pumpers	210	230	20	9.52	0	10	10	16.97	8	3	4
53-7081	Refuse and Recyclable Material Collectors	1,580	1,860	280	18	30	50	80	13.73	8	4	5
53-7111	Shuttle Car Operators	580	590	10	1.72	0	20	20	22.13	8	4	5
53-7121	Tank Car, Truck, and Ship Loaders	160	170	10	6.25	0	10	10	17.03	8	4	5
53-7199	Material Moving Workers, All Other	*	*	*	*	*	*	*	19.54	8	4	5

Data for detailed occupations may not sum to totals due to rounding and omission of confidential data.

\* Employment under 50 and unreliable data suppressed      n/a - Not Available      ~ Education/Training Required Codes- Page 63

Source: Kentucky Education and Workforce Development Cabinet, Department for Workforce Investment, Office of Employment and Training, Research and Statistics Branch

# Educational/Training Classifications

The Bureau of Labor Statistics (BLS) provides individual assignments to each occupation for three dimensions: education; work experience in a related field; and on-the-job training. The objective of this system is to present a complete picture of the education and training needed for entry into a given occupation and to become competent at performing the occupation.

**Entry Level Education:** Represents the typical education level needed to enter an occupation. There are eight possible assignments for this category.

- 1) Doctoral or Professional Degree:** Completion of a doctoral degree (Ph.D.) usually requires at least 3 years of full-time academic work beyond a bachelor's degree. Completion of a professional degree usually requires at least 3 years of full-time academic study beyond a bachelor's degree. Examples of occupations for which a professional degree is the typical form of entry-level education include lawyers, physicians and surgeons, and dentists.
- 2) Master's Degree:** Completion of this degree usually requires 1 or 2 years of full-time academic study beyond a bachelor's degree. Examples of occupations in this category include statisticians, physician assistants, and educational, vocational, and school counselors.
- 3) Bachelor's Degree:** Completion of this degree generally requires at least 4 years, but not more than 5 years, of full-time academic study beyond high school. Examples of occupations in this category include budget analysts, dietitians, and civil engineers.
- 4) Associate's Degree:** Completion of this degree usually requires at least 2 years but not more than 4 years of full-time academic study beyond high school. Examples of occupations in this category include mechanical drafters, respiratory therapists, and dental hygienists.
- 5) Postsecondary Non-Degree Award:** These programs lead to a certificate or other award, but not a degree. The certificate is awarded by the educational institution and is the result of completing formal postsecondary schooling. Certification, which is issued by a professional organization or certifying body, is not included here. Some postsecondary non-degree award programs last only a few weeks, while others may last 1 to 2 years. Examples of occupations in this category include nursing aides, emergency medical technicians (EMTs) and paramedics, and hairstylists.
- 6) Some College, No Degree:** This category signifies the achievement of a high school diploma or equivalent plus the completion of one or more postsecondary courses that did not result in a degree or award. Examples of occupations in this category are actors and computer support specialists.
- 7) High School Diploma or Equivalent:** This category signifies the completion of high school or an equivalent program resulting in the award of a high school diploma or an equivalent, such as the General Educational Development (GED) credential. Examples of occupations in this category include social and human service assistants and pharmacy technicians.
- 8) Less than High School:** This category signifies the completion of any level of primary or secondary education that did not result in the award of a high school diploma or equivalent. Examples of occupations in this category include janitors and cleaners, cashiers, and carpet installers.

**Work Experience in a Related Occupation:** For some occupations, work experience in a related occupation may be a typical method of entry. The majority of occupations in this category are first-line supervisors or managers of service, sales, and production occupations. Although work experience in a related occupation is beneficial for all occupations, this metric is meant to capture work experience that is commonly considered necessary by employers, or is a commonly accepted substitute for other, more formal types of training or education. Occupations are assigned one of the following four categories that deal with length of time spent gaining related work experience:

- 1) More than 5 years:** This is assigned to occupations if more than 5 years of work experience in a related occupation is typically needed for entry. Examples include construction managers and computer and information systems managers.
- 2) 1 to 5 years:** To enter occupations in this category, workers typically need 1-5 years of work experience in a related occupation. Examples include marketing managers and database administrators.

- 3) Less than 1 year:** Examples of occupations that typically need less than 1 year of work experience in a related occupation include restaurant cooks and industrial truck and tractor operators.
- 4) None:** No work experience in a related occupation is typically needed. Examples are audiologists and actuaries.

**Typical On-The-Job Training Needed to Attain Competency in the Occupation:** This category encompasses any additional training or preparation that is typically needed, once employed in an occupation, to attain competency in the skills needed in that occupation. Training is occupation-specific rather than job-specific; skills learned can be transferred to another job in the same occupation. Occupations are assigned one of the following six training categories:

- 1) Internship/Residency:** An internship or residency is training that involves preparation in a field such as medicine or teaching, generally under supervision in a professional setting, such as a hospital or classroom. This type of training may occur before one is employed. Completion of an internship or residency program is commonly required for state licensure or certification in fields including medicine, counseling, architecture, and teaching. This category does not include internships that are suggested for advancement. Examples of occupations in the internship/residency category include physicians and surgeons and marriage and family therapists.
- 2) Apprenticeship:** An apprenticeship is a formal relationship between a worker and sponsor that consists of a combination of on-the-job training and related occupation-specific technical instruction in which the worker learns the practical and theoretical aspects of an occupation. Apprenticeship programs are sponsored by individual employers, joint employer-and-labor groups, and employer associations. The typical apprenticeship program provides at least 144 hours of occupation-specific technical instruction and 2,000 hours of on-the-job training per year over a 3-to-5 year period. Examples of occupations in the apprenticeship category include electricians and structural iron and steel workers.
- 3) Long-Term On-The-Job Training:** More than 12 months of on-the-job training or, alternatively, combined work experience and formal classroom instruction, are needed for workers to develop the skills to attain competency. Training is occupation specific rather than job specific; therefore, skills learned can be transferred to another job in the same occupation. This on-the-job training category also includes employer-sponsored training programs. Such programs include those offered by fire and police academies and schools for air traffic controllers and flight attendants. In other occupations—nuclear power reactor operators, for example—trainees take formal courses, often provided at the jobsite, to prepare for the required licensing exams. This category excludes apprenticeships. Examples of occupations in the long-term on-the-job training category include opticians and automotive service technicians and mechanics.
- 4) Moderate-Term On-The-Job Training:** Skills needed for a worker to attain competency in an occupation that can be acquired during 1 to 12 months of combined on-the-job experience and informal training. Training is occupation-specific rather than job-specific; therefore, skills learned can be transferred to another job in the same occupation. This on-the-job training category also includes employer-sponsored training programs. Examples of occupations in the moderate-term category include school bus drivers and advertising sales agents.
- 5) Short-Term On-The-Job Training:** Skills needed for a worker to attain competency in an occupation that can be acquired during 1 month or less of on-the-job experience and informal training. Training is occupation-specific rather than job specific; therefore, skills learned can be transferred to another job in the same occupation. This on-the-job training category also includes employer sponsored training programs. Examples of occupations in the short-term category include retail salespersons and maids and housekeeping cleaners.
- 6) None:** There is no additional occupation-specific training or preparation typically required to attain competency in the occupation. Examples of occupations that do not require occupation-specific on-the-job training include geographers and pharmacists.

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**A**

Accountants and Auditors	27	13-2011
Actors	38	27-2011
Actuaries	28	15-2011
Administrative Law Judges, Adjudicators, and Hearing Officers	34	23-1021
Administrative Services Mgrs.	25	11-3011
Adult Literacy, Remedial Ed., & GED Teachers & Instructors	36	25-3011
Advertising and Promotions Mgrs.	25	11-2011
Advertising Sales Agents	48	41-3011
Aerospace Engineering and Operations Technicians	30	17-3021
Aerospace Engineers	29	17-2011
Agents & Business Mgrs. of Artists, Performers, & Athletes	27	13-1011
Agricultural and Food Science Technicians	32	19-4011
Agricultural Engineers	29	17-2021
Agricultural Equipment Operators	51	45-2091
Agricultural Inspectors	51	45-2011
Agricultural Sciences Teachers, Post.**	35	25-1041
Agricultural Workers, All Other	51	45-2099
Air Traffic Controllers	61	53-2021
Aircraft Cargo Handling Supervisors	61	53-1011
Aircraft Mechanics and Service Technicians	54	49-3011
Aircraft Structure, Surfaces, Rigging, & Systems Assemblers	56	51-2011
Airfield Operations Specialists	61	53-2022
Airline Pilots, Copilots, and Flight Engineers	61	53-2011
Ambulance Drivers & Attend., Except Emergency Medical Techs.	61	53-3011
Amusement and Recreation Attendants	46	39-3091
Anesthesiologists	40	29-1061
Animal Breeders	51	45-2021
Animal Control Workers	43	33-9011
Animal Scientists	31	19-1011
Animal Trainers	46	39-2011
Anthropologists and Archeologists	32	19-3091
Anthropology and Archeology Teachers, Post.**	35	25-1061
Appraisers and Assessors of Real Estate	27	13-2021
Arbitrators, Mediators, and Conciliators	34	23-1022
Architects, Except Landscape and Naval	29	17-1011
Architectural and Civil Drafters	30	17-3011
Architecture Teachers, Post.**	35	25-1031
Archivists	36	25-4011
Area, Ethnic, and Cultural Studies Teachers, Post.**	35	25-1062
Art Directors	38	27-1011
Art, Drama, and Music Teachers, Post.**	36	25-1121
Artists and Related Workers, All Other	38	27-1019
Assemblers and Fabricators, All Other	56	51-2099
Astronomers	31	19-2011
Athletes and Sports Competitors	38	27-2021
Athletic Trainers	41	29-9091
Atmospheric and Space Scientists	31	19-2021

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Atmospheric, Earth, Marine, & Space Sciences Teachers, Post.**	35	25-1051
Audio and Video Equipment Technicians	39	27-4011
Audiologists	40	29-1181
Audio-Visual Collections Specialists	37	25-9011
Automotive Body and Related Repairers	54	49-3021
Automotive Glass Installers and Repairers	54	49-3022
Automotive Service Technicians and Mechanics	54	49-3023
Avionics Technicians	54	49-2091

**B**

Baggage Porters and Bellhops	46	39-6011
Bailiffs	43	33-3011
Bakers	56	51-3011
Barbers	46	39-5011
Bartenders	44	35-3011
Bicycle Repairers	54	49-3091
Bill and Account Collectors	49	43-3011
Billing and Posting Clerks and Machine Operators	49	43-3021
Biochemists and Biophysicists	31	19-1021
Biological Science Teachers, Post.**	35	25-1042
Biological Scientists, All Other	31	19-1029
Biological Technicians	32	19-4021
Biomedical Engineers	29	17-2031
Boilermakers	52	47-2011
Bookkeeping, Accounting, and Auditing Clerks	49	43-3031
Brickmasons and Blockmasons	52	47-2021
Bridge and Lock Tenders	62	53-6011
Broadcast News Analysts	39	27-3021
Broadcast Technicians	39	27-4012
Brokerage Clerks	49	43-4011
Budget Analysts	27	13-2031
Building Cleaning Workers, All Other	45	37-2019
Bus and Truck Mechanics and Diesel Engine Specialists	54	49-3031
Bus Drivers, School	61	53-3022
Bus Drivers, Transit and Intercity	61	53-3021
Business Operations Specialists, All Other	27	13-1199
Business Teachers, Post.**	35	25-1011
Butchers and Meat Cutters	56	51-3021

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C

Cabinetmakers and Bench Carpenters	58	51-7011
Camera and Photographic Equipment Repairers	55	49-9061
Camera Operators, Television, Video, and Motion Picture	39	27-4031
Captains, Mates, and Pilots of Water Vessels	61	53-5021
Cardiovascular Technologists and Technicians	41	29-2031
Cargo and Freight Agents	50	43-5011
Carpenters	52	47-2031
Carpet Installers	52	47-2041
Cartographers and Photogrammetrists	29	17-1021
Cashiers	48	41-2011
Cement Masons and Concrete Finishers	52	47-2051
Cementing and Gluing Machine Operators and Tenders	60	51-9191
Chefs and Head Cooks	44	35-1011
Chemical Engineers	29	17-2041
Chemical Equipment Operators and Tenders	59	51-9011
Chemical Plant and System Operators	59	51-8091
Chemical Technicians	32	19-4031
Chemistry Teachers, Post.**	35	25-1052
Chemists	31	19-2031
Chief Executives	25	11-1011
Child Care Workers	47	39-9011
Child, Family, and School Social Workers	33	21-1021
Chiropractors	40	29-1011
Choreographers	38	27-2032
Civil Engineering Technicians	30	17-3022
Civil Engineers	29	17-2051
Claims Adjusters, Examiners, and Investigators	27	13-1031
Cleaners of Vehicles and Equipment	62	53-7061
Cleaning, Washing, & Metal Pickling Equipment Ops. & Tenders	60	51-9192
Clergy	33	21-2011
Clinical, Counseling, and School Psychologists	32	19-3031
Coaches and Scouts	38	27-2022
Coating, Painting, and Spraying Machine SOT^	59	51-9121
Coil Winders, Tapers, and Finishers	56	51-2021
Coin, Vending, & Amusement Machine Servicers & Repairers	55	49-9091
Combined Food Prep. & Serving Workers, Including Fast Food	44	35-3021
Commercial and Industrial Designers	38	27-1021
Commercial Divers	55	49-9092
Commercial Pilots	61	53-2012
Communications Equipment Operators, All Other	49	43-2099
Communications Teachers, Post.**	36	25-1122
Community and Social Service Specialists, All Other	33	21-1798
Compensation and Benefits Mgrs.	25	11-3111
Compensation, Benefits, and Job Analysis Specialists	27	13-1141
Compliance Ofcr., Except Agri., Constr., Hlth. & Safety, & Transp.	27	13-1041
Computer and Information Research Scientists	28	15-1111
Computer and Information Systems Mgrs.	25	11-3021

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Computer Hardware Engineers	29	17-2061
Computer Occupations, All Other	28	15-1799
Computer Operators	50	43-9011
Computer Programmers	28	15-1131
Computer Science Teachers, Post.**	35	25-1021
Computer Support Specialists	28	15-1150
Computer Systems Analysts	28	15-1121
Computer, Automated Teller, and Office Machine Repairers	54	49-2011
Computer-Controlled Machine Tool Operators, Metal & Plastic	56	51-4011
Concierges	46	39-6012
Conservation Scientists	31	19-1031
Construction and Building Inspectors	53	47-4011
Construction and Related Workers, All Other	53	47-4799
Construction Laborers	52	47-2061
Construction Mgrs.	25	11-9021
Continuous Mining Machine Operators	53	47-5041
Control & Valve Installers & Repairers, Except Mechanical Door	55	49-9012
Conveyor Operators and Tenders	62	53-7011
Cooks, All Other	44	35-2019
Cooks, Fast Food	44	35-2011
Cooks, Institution and Cafeteria	44	35-2012
Cooks, Private Household	44	35-2013
Cooks, Restaurant	44	35-2014
Cooks, Short Order	44	35-2015
Cooling and Freezing Equipment Operators and Tenders	60	51-9193
Correctional Officers and Jailers	43	33-3012
Correspondence Clerks	49	43-4021
Cost Estimators	27	13-1051
Costume Attendants	46	39-3092
Counselors, All Other	33	21-1019
Counter and Rental Clerks	48	41-2021
Counter Attendants, Cafeteria, Food Concession, & Coffee Shop	44	35-3022
Couriers and Messengers	50	43-5021
Court Reporters	34	23-2091
Court, Municipal, and License Clerks	49	43-4031
Craft Artists	38	27-1012
Crane and Tower Operators	62	53-7021
Credit Analysts	27	13-2041
Credit Authorizers, Checkers, and Clerks	49	43-4041
Criminal Justice and Law Enforcement Teachers, Post.**	35	25-1111
Crossing Guards	43	33-9091
Crushing, Grinding, and Polishing Machine SOT^	59	51-9021
Curators	36	25-4012
Customer Service Representatives	49	43-4051
Cutters and Trimmers, Hand	59	51-9031
Cutting and Slicing Machine SOT^	59	51-9032
Cutting, Punching, and Press Machine SOT^, Metal & Plastic	57	51-4031

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**D**

Dancers	38	27-2031
Data Entry Keyers	50	43-9021
Database Admin.	28	15-1141
Demonstrators and Product Promoters	48	41-9011
Dental Assistants	42	31-9091
Dental Hygienists	41	29-2021
Dental Laboratory Technicians	59	51-9081
Dentists, All Other Specialists	40	29-1029
Dentists, General	40	29-1021
Derrick Operators, Oil and Gas	53	47-5011
Designers, All Other	38	27-1029
Desktop Publishers	50	43-9031
Detectives and Criminal Investigators	43	33-3021
Diagnostic Medical Sonographers	41	29-2032
Dietetic Technicians	41	29-2051
Dietitians and Nutritionists	40	29-1031
Dining Room and Cafeteria Attendants and Bartender Helpers	44	35-9011
Directors, Religious Activities and Education	33	21-2021
Dishwashers	44	35-9021
Dispatchers, Except Police, Fire, and Ambulance	50	43-5032
Door-To-Door Sales Work., News & Street Vend., & Related Work.	48	41-9091
Drafters, All Other	30	17-3019
Dredge Operators	62	53-7031
Drilling and Boring Machine Tool SOT^, Metal and Plastic	57	51-4032
Driver/Sales Workers	61	53-3031
Drywall and Ceiling Tile Installers	52	47-2081

**E**

Earth Drillers, Except Oil and Gas	53	47-5021
Economics Teachers, Post.**	35	25-1063
Economists	32	19-3011
Editors	39	27-3041
Education Admin., All Other	25	11-9039
Education Admin., Elementary and Secondary School	25	11-9032
Education Admin., Postsecondary	25	11-9033
Education Admin., Preschool and Child Care Center/Program	25	11-9031
Education Teachers, Post.**	35	25-1081
Education, Training, and Library Workers, All Other	37	25-9099
Educational, Vocational, and School Counselors	33	21-1012
Electric Motor, Power Tool, and Related Repairers	54	49-2092
Electric. & Electron. Repairers, Commercial & Industrial Equip.	54	49-2094
Electric. & Electron. Repairers, Powerhouse, Substation, & Relay	54	49-2095
Electrical & Electronics Installers & Repairers, Transp. Equip.	54	49-2093
Electrical and Electronic Engineering Technicians	30	17-3023
Electrical and Electronic Equipment Assemblers	56	51-2022

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Electrical and Electronics Drafters	30	17-3012
Electrical Engineers	29	17-2071
Electrical Power-Line Installers and Repairers	55	49-9051
Electricians	52	47-2111
Electromechanical Equipment Assemblers	56	51-2023
Electro-Mechanical Technicians	30	17-3024
Electronic Equipment Installers & Repairers, Motor Vehicles	54	49-2096
Electronic Home Entertainment Equip. Installers & Repairers	54	49-2097
Electronics Engineers, Except Computer	29	17-2072
Elementary School Teachers, Except Special Education**	36	25-2021
Elevator Installers and Repairers	53	47-4021
Eligibility Interviewers, Government Programs	49	43-4061
Embalmers	46	39-4011
Emergency Management Directors	26	11-9161
Emergency Medical Technicians and Paramedics	41	29-2041
Engine and Other Machine Assemblers	56	51-2031
Engineering Mgrs.	25	11-9041
Engineering Teachers, Post.**	35	25-1032
Engineering Technicians, Except Drafters, All Other	30	17-3029
Engineers, All Other	29	17-2199
English Language and Literature Teachers, Post.**	36	25-1123
Entertainers & Performers, Sports & Related Workers, All Other	38	27-2099
Entertainment Attendants and Related Workers, All Other	46	39-3099
Environmental Engineering Technicians	30	17-3025
Environmental Engineers	29	17-2081
Environmental Science & Protection Techs., Including Health	32	19-4091
Environmental Science Teachers, Post.**	35	25-1053
Environmental Scientists and Specialists, Including Health	31	19-2041
Epidemiologists	31	19-1041
Etchers and Engravers	60	51-9194
Excavating and Loading Machine and Dragline Operators	62	53-7032
Executive Secretaries and Administrative Assistants	50	43-6011
Explosives Workers, Ordnance Handling Experts, & Blasters	53	47-5031
Extraction Workers, All Other	53	47-5099
Extruding & Forming Machine SOT^, Synthetic & Glass Fibers	58	51-6091
Extruding and Drawing Machine SOT^, Metal and Plastic	56	51-4021
Extruding, Forming, Pressing, and Compacting Machine SOT^	59	51-9041

**F**

Fabric and Apparel Patternmakers	58	51-6092
Fallers	51	45-4021
Family and General Practitioners	40	29-1062
Farm and Home Management Advisors	37	25-9021
Farm Equipment Mechanics	54	49-3041
Farm Labor Contractors	27	13-1074
Farmers, Ranchers, and Other Agricultural Mgrs.	25	11-9013
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	51	45-2092
Farmworkers, Farm and Ranch Animals	51	45-2093

Occupational Title	Page	SOC
Fashion Designers	38	27-1022
Fence Erectors	53	47-4031
Fiberglass Laminators and Fabricators	56	51-2091
File Clerks	49	43-4071
Film and Video Editors	39	27-4032
Financial Analysts	27	13-2051
Financial Examiners	27	13-2061
Financial Mgrs.	25	11-3031
Financial Specialists, All Other	27	13-2099
Fine Artists, Including Painters, Sculptors, and Illustrators	38	27-1013
Fire Fighters	43	33-2011
Fire Inspectors and Investigators	43	33-2021
First-Line Super./Mgrs. of Constr. Trades & Extraction Workers	52	47-1011
First-Line Super./Mgrs. of Farming, Fishing, & Forestry Workers	51	45-1011
First-Line Super./Mgrs. of Fire Fighting and Prevention Workers	43	33-1021
First-Line Super./Mgrs. of Food Preparation & Serving Workers	44	35-1012
First-Line Super./Mgrs. of Helpers, Laborers, & Mat. Movers, Hand	61	53-1021
First-Line Super./Mgrs. of Housekeeping and Janitorial Workers	45	37-1011
First-Line Super./Mgrs. of Land., Lawn Service, & Grounds. Work.	45	37-1012
First-Line Super./Mgrs. of Mechanics, Installers, & Repairers	54	49-1011
First-Line Super./Mgrs. of Office & Admin. Support Workers	49	43-1011
First-Line Super./Mgrs. of Production & Operating Workers	56	51-1011
First-Line Super./Mgrs., Protective Service Workers, All Other	43	33-1099
First-Line Super/Mgrs of Transp & Mat.-Moving Mach. & Vehic Ops	61	53-1031
First-Line Supervisors/Mgrs. of Correctional Officers	43	33-1011
First-Line Supervisors/Mgrs. of Non-Retail Sales Workers	48	41-1012
First-Line Supervisors/Mgrs. of Personal Service Workers	46	39-1021
First-Line Supervisors/Mgrs. of Police and Detectives	43	33-1012
First-Line Supervisors/Mgrs. of Retail Sales Workers	48	41-1011
Fish and Game Wardens	43	33-3031
Fishers and Related Fishing Workers	51	45-3011
Fitness Trainers and Aerobics Instructors	47	39-9031
Flight Attendants	61	53-2031
Floor Layers, Except Carpet, Wood, and Hard Tiles	52	47-2042
Floor Sanders and Finishers	52	47-2043
Floral Designers	38	27-1023
Food & Tobacco Roast., Baking, & Drying Mach. Ops. & Tenders	56	51-3091
Food Batchmakers	56	51-3092
Food Cooking Machine Operators and Tenders	56	51-3093
Food Preparation and Serving Related Workers, All Other	44	35-9099
Food Preparation Workers	44	35-2021
Food Scientists and Technologists	31	19-1012
Food Servers, Nonrestaurant	44	35-3041
Food Service Mgrs.	25	11-9051
Foreign Language and Literature Teachers, Post.**	36	25-1124
Forensic Science Technicians	32	19-4092
Forest and Conservation Technicians	32	19-4093
Forest and Conservation Workers	51	45-4011
Forest Fire Inspectors and Prevention Specialists	43	33-2022
Foresters	31	19-1032

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Forestry and Conservation Science Teachers, Post.**	35	25-1043
Forging Machine SOT^, Metal and Plastic	56	51-4022
Foundry Mold and Coremakers	57	51-4071
Funeral Attendants	46	39-4021
Funeral Service Mgrs., Directors, Morticians, and Undertakers	46	39-4831
Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	59	51-9051
Furniture Finishers	58	51-7021
<b>G</b>		
Gaming and Sports Book Writers and Runners	46	39-3012
Gaming Cage Workers	49	43-3041
Gaming Dealers	46	39-3011
Gaming Supervisors	46	39-1011
Gas Compressor and Gas Pumping Station Operators	62	53-7071
Gas Plant Operators	59	51-8092
General and Operations Mgrs.	25	11-1021
Geographers	32	19-3092
Geography Teachers, Post.**	35	25-1064
Geological and Petroleum Technicians	32	19-4041
Geoscientists, Except Hydrologists and Geographers	31	19-2042
Glaziers	52	47-2121
Graders and Sorters, Agricultural Products	51	45-2041
Graduate Teaching Assistants	36	25-1191
Graphic Designers	38	27-1024
Grind., Lap., Polish., & Buff. Mach. Tool SOT^, Metal & Plastic	57	51-4033
Grinding and Polishing Workers, Hand	59	51-9022
Grounds Maintenance Workers, All Other	45	37-3019
<b>H</b>		
Hairdressers, Hairstylists, and Cosmetologists	46	39-5012
Hazardous Materials Removal Workers	53	47-4041
Health & Safety Engrs., Except Mining Safety Engrs. & Inspectors	29	17-2111
Health Diagnosing and Treating Practitioners, All Other	40	29-1199
Health Educators	33	21-1091
Health Specialties Teachers, Post.**	35	25-1071
Health Technologists and Technicians, All Other	41	29-2799
Health. Pract. & Tech. Work., All Other, Incl. Genetic Counselors	41	29-9799
Healthcare Support Workers, All Other	42	31-9799
Heat Treating Equipment SOT^, Metal and Plastic	57	51-4191
Heating, Air Conditioning, & Refrigeration Mechanics & Installers	55	49-9021
Helpers, Construction Trades, All Other	53	47-3019
Helpers--Brick., Block., Stone., & Tile & Marble Setters	53	47-3011
Helpers--Carpenters	53	47-3012
Helpers--Electricians	53	47-3013
Helpers--Extraction Workers	53	47-5081
Helpers--Installation, Maintenance, and Repair Workers	55	49-9098

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Helpers--Painters, Paperhangers, Plasterers, & Stucco Masons	53	47-3014
Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters	53	47-3015
Helpers--Production Workers	60	51-9198
Helpers--Roofers	53	47-3016
Highway Maintenance Workers	53	47-4051
Historians	32	19-3093
History Teachers, Post.**	36	25-1125
Hoist and Winch Operators	62	53-7041
Home Appliance Repairers	55	49-9031
Home Economics Teachers, Post.**	36	25-1192
Home Health Aides	42	31-1011
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	44	35-9031
Hotel, Motel, and Resort Desk Clerks	49	43-4081
Human Res., Labor Relations, & Training Spec., All Other	27	13-1078
Human Resources Assist., Except Payroll & Timekeeping	49	43-4161
Human Resources Mgrs.	25	11-3121
Hydrologists	31	19-2043

**I**

Industrial Engineering Technicians	30	17-3026
Industrial Engineers	29	17-2112
Industrial Machinery Mechanics	55	49-9041
Industrial Production Mgrs.	25	11-3051
Industrial Truck and Tractor Operators	62	53-7051
Industrial-Organizational Psychologists	32	19-3032
Info. Security Analysts, Web Develop., & Computer Net. Architects	28	15-1179
Information and Record Clerks, All Other	49	43-4199
Inspectors, Testers, Sorters, Samplers, and Weighers	59	51-9061
Installation, Maintenance, and Repair Workers, All Other	55	49-9799
Instructional Coordinators	37	25-9031
Insulation Workers, Floor, Ceiling, and Wall	52	47-2131
Insulation Workers, Mechanical	52	47-2132
Insurance Appraisers, Auto Damage	27	13-1032
Insurance Claims and Policy Processing Clerks	50	43-9041
Insurance Sales Agents	48	41-3021
Insurance Underwriters	27	13-2053
Interior Designers	38	27-1025
Internists, General	40	29-1063
Interpreters and Translators	39	27-3091
Interviewers, Except Eligibility and Loan	49	43-4111

**J**

Janitors and Cleaners, Except Maids and Housekeeping Cleaners	45	37-2011
Jewelers and Precious Stone and Metal Workers	59	51-9071
Judges, Magistrate Judges, and Magistrates	34	23-1023
Judicial Law Clerks	34	23-1012

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**K**

Kindergarten Teachers, Except Special Education**	36	25-2012
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**L**

Laborers and Freight, Stock, and Material Movers, Hand	62	53-7062
Landscape Architects	29	17-1012
Landscaping and Groundskeeping Workers	45	37-3011
Lathe and Turning Machine Tool SOT^, Metal and Plastic	57	51-4034
Laundry and Dry-Cleaning Workers	58	51-6011
Law Teachers, Post.**	35	25-1112
Lawyers	34	23-1011
Lay-Out Workers, Metal and Plastic	57	51-4192
Legal Secretaries	50	43-6012
Legal Support Workers, All Other	34	23-2099
Legislators	25	11-1031
Librarians	36	25-4021
Library Assistants, Clerical	49	43-4121
Library Science Teachers, Post.**	35	25-1082
Library Technicians	36	25-4031
Licensed Practical and Licensed Vocational Nurses	41	29-2061
Life Scientists, All Other	31	19-1099
Life, Physical, and Social Science Technicians, All Other	32	19-4099
Lifeguards, Ski Patrol, and Other Rec. Protective Service Work.	43	33-9092
Loading Machine Operators, Underground Mining	62	53-7033
Loan Counselors	27	13-2071
Loan Interviewers and Clerks	49	43-4131
Loan Officers	27	13-2072
Locker Room, Coatroom, and Dressing Room Attendants	46	39-3093
Locksmiths and Safe Repairers	55	49-9094
Locomotive Engineers	61	53-4011
Locomotive Firers	61	53-4012
Lodging Mgrs.	25	11-9081
Log Graders and Scalers	51	45-4023
Logging Equipment Operators	51	45-4022
Logisticians	27	13-1081

**M**

Machine Feeders and Offbearers	62	53-7063
Machinists	57	51-4041
Maids and Housekeeping Cleaners	45	37-2012
Mail Clerks & Mail Machine Operators, Except Postal Service	50	43-9051
Maintenance and Repair Workers, General	55	49-9071
Maintenance Workers, Machinery	55	49-9043
Management Analysts	27	13-1111
Manicurists and Pedicurists	46	39-5092

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Manufactured Building and Mobile Home Installers	55	49-9095
Marine Engineers and Naval Architects	29	17-2121
Market Research Analysts and Marketing Specialists	27	13-1161
Marketing Mgrs.	25	11-2021
Marriage and Family Therapists	33	21-1013
Massage Therapists	42	31-9011
Material Moving Workers, All Other	62	53-7199
Materials Engineers	29	17-2131
Materials Scientists	31	19-2032
Mathematical Science Occupations, All Other	28	15-2099
Mathematical Science Teachers, Post.**	35	25-1022
Mathematicians	28	15-2021
Meat, Poultry, and Fish Cutters and Trimmers	56	51-3022
Mechanical Door Repairers	55	49-9011
Mechanical Drafters	30	17-3013
Mechanical Engineering Technicians	30	17-3027
Mechanical Engineers	29	17-2141
Media and Communication Equipment Workers, All Other	39	27-4099
Media and Communication Workers, All Other	39	27-3099
Medical and Clinical Laboratory Technicians	41	29-2012
Medical and Clinical Laboratory Technologists	41	29-2011
Medical and Health Services Mgrs.	26	11-9111
Medical and Public Health Social Workers	33	21-1022
Medical Appliance Technicians	59	51-9082
Medical Assistants	42	31-9092
Medical Equipment Preparerers	42	31-9093
Medical Equipment Repairers	55	49-9062
Medical Records and Health Information Technicians	41	29-2071
Medical Scientists, Except Epidemiologists	31	19-1042
Medical Secretaries	50	43-6013
Medical Transcriptionists	42	31-9094
Meeting and Convention Planners	27	13-1121
Mental Health and Substance Abuse Social Workers	33	21-1023
Mental Health Counselors	33	21-1014
Merchandise Displayers and Window Trimmers	38	27-1026
Metal Workers and Plastic Workers, All Other	57	51-4199
Metal-Refining Furnace Operators and Tenders	57	51-4051
Meter Readers, Utilities	50	43-5041
Mgrs., All Other	26	11-9199
Microbiologists	31	19-1022
Middle School Teachers, Except Special and Vocational Ed.**	36	25-2022
Milling and Planing Machine SOT^, Metal and Plastic	57	51-4035
Millwrights	55	49-9044
Mine Cutting and Channeling Machine Operators	53	47-5042
Mining and Geological Engrs., Including Mining Safety Engrs.	29	17-2151
Mining Machine Operators, All Other	53	47-5049
Mixing and Blending Machine SOT^	59	51-9023
Mobile Heavy Equipment Mechanics, Except Engines	54	49-3042
Model Makers, Metal and Plastic	57	51-4061
Models	48	41-9012
Molders, Shapers, and Casters, Except Metal and Plastic	60	51-9195
Molding, Coremaking, & Casting Machine SOT^, Metal and Plastic	57	51-4072

Occupational Title	Page	SOC
Motion Picture Projectionists	46	39-3021
Motor Vehicle Operators, All Other	61	53-3099
Motorboat Mechanics	54	49-3051
Motorboat Operators	61	53-5022
Motorcycle Mechanics	54	49-3052
Multi-Media Artists and Animators	38	27-1014
Multiple Machine Tool SOT^, Metal and Plastic	57	51-4081
Museum Technicians and Conservators	36	25-4013
Music Directors and Composers	38	27-2041
Musical Instrument Repairers and Tuners	55	49-9063
Musicians and Singers	38	27-2042
N		
Natural Sciences Mgrs.	26	11-9121
Network and computer systems architects and Admin.	28	15-1142
New Accounts Clerks	49	43-4141
Nonfarm Animal Caretakers	46	39-2021
Nuclear Engineers	29	17-2161
Nuclear Medicine Technologists	41	29-2033
Nuclear Technicians	32	19-4051
Numerical Tool and Process Control Programmers	56	51-4012
Nursing Aides, Orderlies, and Attendants	42	31-1012
Nursing Instructors and Teachers, Post.**	35	25-1072
O		
Obstetricians and Gynecologists	40	29-1064
Occupational Health and Safety Specialists	41	29-9011
Occupational Health and Safety Technicians	41	29-9012
Occupational Therapist Aides	42	31-2012
Occupational Therapist Assistants	42	31-2011
Occupational Therapists	40	29-1122
Office and Administrative Support Workers, All Other	50	43-9799
Office Clerks, General	50	43-9061
Office Machine Operators, Except Computer	50	43-9071
Operating Engineers & Other Construction Equip. Operators	52	47-2073
Operations Research Analysts	28	15-2031
Ophthalmic Laboratory Technicians	59	51-9083
Opticians, Dispensing	41	29-2081
Optometrists	40	29-1041
Oral and Maxillofacial Surgeons	40	29-1022
Order Clerks	49	43-4151
Orthodontists	40	29-1023
Orthotists and Prosthetists	41	29-2091
Outdoor Power Equipment & Other Small Engine Mechanics	54	49-3053

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**P**

Packaging and Filling Machine Operators and Tenders	59	51-9111
Packers and Packagers, Hand	62	53-7064
Painters, Construction and Maintenance	52	47-2141
Painters, Transportation Equipment	59	51-9122
Painting, Coating, and Decorating Workers	59	51-9123
Paper Goods Machine SOT^	60	51-9196
Paperhangers	52	47-2142
Paralegals and Legal Assistants	34	23-2011
Parking Enforcement Workers	43	33-3041
Parking Lot Attendants	62	53-6021
Parts Salespersons	48	41-2022
Patternmakers, Metal and Plastic	57	51-4062
Paving, Surfacing, and Tamping Equipment Operators	52	47-2071
Payroll and Timekeeping Clerks	49	43-3051
Pediatricians, General	40	29-1065
Personal and Home Care Aides	47	39-9021
Personal Care and Service Workers, All Other	47	39-9099
Personal Financial Advisors	27	13-2052
Pest Control Workers	45	37-2021
Pesticide Handlers, Sprayers, and Applicators, Vegetation	45	37-3012
Petroleum Engineers	29	17-2171
Petroleum Pump System Operators, Refinery Ops., & Gaugers	59	51-8093
Pharmacists	40	29-1051
Pharmacy Aides	42	31-9095
Pharmacy Technicians	41	29-2052
Philosophy and Religion Teachers, Post.**	36	25-1126
Photographers	39	27-4021
Photographic Process Workers & Processing Machine Operators	59	51-9151
Physical Scientists, All Other	31	19-2099
Physical Therapist Aides	42	31-2022
Physical Therapist Assistants	42	31-2021
Physical Therapists	40	29-1123
Physician Assistants	40	29-1071
Physicians and Surgeons, All Other	40	29-1069
Physicists	31	19-2012
Physics Teachers, Post.**	35	25-1054
Pipelayers	52	47-2151
Plant and System Operators, All Other	59	51-8099
Plasterers and Stucco Masons	52	47-2161
Plating and Coating Machine SOT^, Metal and Plastic	57	51-4193
Plumbers, Pipefitters, and Steamfitters	52	47-2152
Podiatrists	40	29-1081
Police and Sheriff's Patrol Officers	43	33-3051
Police, Fire, and Ambulance Dispatchers	50	43-5031
Political Science Teachers, Post.**	35	25-1065
Political Scientists	32	19-3094
Postal Serv. Mail Sorters, Processors, & Processing Mach. Ops.	50	43-5053
Postal Service Clerks	50	43-5051

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Postal Service Mail Carriers	50	43-5052
Postmasters and Mail Superintendents	26	11-9131
Postsecondary Teachers, All Other**	36	25-1199
Pourers and Casters, Metal	57	51-4052
Power Distributors and Dispatchers	59	51-8012
Power Plant Operators	59	51-8013
Precision Instrument and Equipment Repairers, All Other	55	49-9069
Prepress Technicians and Workers	57	51-5111
Preschool Teachers, Except Special Education	36	25-2011
Pressers, Textile, Garment, and Related Materials	58	51-6021
Print Binding and Finishing Workers	57	51-5113
Printing Press Operators and Job Printers	57	51-5112
Private Detectives and Investigators	43	33-9021
Probation Officers and Correctional Treatment Specialists	33	21-1092
Procurement Clerks	49	43-3061
Producers and Directors	38	27-2012
Production Workers, All Other	60	51-9399
Production, Planning, and Expediting Clerks	50	43-5061
Proofreaders and Copy Markers	50	43-9081
Property, Real Estate, and Community Association Mgrs.	26	11-9141
Protective Service Workers, All Other	43	33-9099
Psychiatric Aides	42	31-1013
Psychiatric Technicians	41	29-2053
Psychiatrists	40	29-1066
Psychologists, All Other	32	19-3039
Psychology Teachers, Post.**	35	25-1066
Public Address System and Other Announcers	39	27-3012
Public Relations Mgrs.	25	11-2031
Public Relations Specialists	39	27-3031
Pump Operators, Except Wellhead Pumps	62	53-7072
Purchasing Agents and Buyers, Farm Products	27	13-1021
Purchasing Agents, Except Whole., Retail, & Farm Products	27	13-1023
Purchasing Mgrs.	25	11-3061

**R**

Radiation Therapists	40	29-1124
Radio and Television Announcers	39	27-3011
Radio Mechanics	54	49-2021
Radiologic Technologists and Technicians	41	29-2037
Rail Car Repairers	54	49-3043
Rail Transportation Workers, All Other	61	53-4099
Rail Yard Engineers, Dinkey Operators, and Hostlers	61	53-4013
Railroad Brake, Signal, and Switch Operators	61	53-4021
Railroad Conductors and Yardmasters	61	53-4031
Rail-Track Laying and Maintenance Equipment Operators	53	47-4061
Real Estate Brokers	48	41-9021
Real Estate Sales Agents	48	41-9022
Receptionists and Information Clerks	49	43-4171
Recreation and Fitness Studies Teachers, Post.**	36	25-1193

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Recreation Workers	47	39-9032
Recreational Therapists	40	29-1125
Recreational Vehicle Service Technicians	54	49-3092
Refractory Materials Repairers, Except Brickmasons	55	49-9045
Refuse and Recyclable Material Collectors	62	53-7081
Registered Nurses	40	29-1111
Rehabilitation Counselors	33	21-1015
Reinforcing Iron and Rebar Workers	52	47-2171
Religious Workers, All Other	33	21-2099
Reporters and Correspondents	39	27-3022
Reservation & Transportation Ticket Agents and Travel Clerks	49	43-4181
Residential Advisors	47	39-9041
Respiratory Therapists	40	29-1126
Respiratory Therapy Technicians	41	29-2054
Retail Salespersons	48	41-2031
Riggers	55	49-9096
Rock Splitters, Quarry	53	47-5051
Rolling Machine SOT^, Metal and Plastic	56	51-4023
Roof Bolters, Mining	53	47-5061
Roofers	52	47-2181
Rotary Drill Operators, Oil and Gas	53	47-5012
Roustabouts, Oil and Gas	53	47-5071

**S**

Sailors and Marine Oilers	61	53-5011
Sales and Related Workers, All Other	48	41-9799
Sales Engineers	48	41-9031
Sales Mgrs.	25	11-2022
Sales Representatives, Services, All Other	48	41-3099
Sales Reps., Wholesale & Mfg., Except Tech. & Sci. Products	48	41-4012
Sales Reps., Wholesale & Mfg., Technical & Scientific Products	48	41-4011
Sawing Machine SOT^, Wood	58	51-7041
Secondary School Teachers, Except Special and Vocational Ed.**	36	25-2031
Secretaries, Except Legal, Medical, and Executive	50	43-6014
Securities, Commodities, & Financial Services Sales Agents	48	41-3031
Security and Fire Alarm Systems Installers	54	49-2098
Security Guards	43	33-9032
Self-Enrichment Education Teachers	36	25-3021
Separating, Filtering, Clarifying, Precipitating, & Still Machine SOT^	59	51-9012
Septic Tank Servicers and Sewer Pipe Cleaners	53	47-4071
Service Station Attendants	62	53-6031
Service Unit Operators, Oil, Gas, and Mining	53	47-5013
Set and Exhibit Designers	38	27-1027
Sewers, Hand	58	51-6051
Sewing Machine Operators	58	51-6031
Shampoosers	46	39-5093
Sheet Metal Workers	52	47-2211
Ship Engineers	61	53-5031
Shipping, Receiving, and Traffic Clerks	50	43-5071

Occupational Title	Page	SOC
Shoe and Leather Workers and Repairers	58	51-6041
Shuttle Car Operators	62	53-7111
Signal and Track Switch Repairers	55	49-9097
Skin Care Specialists	46	39-5094
Slaughterers and Meat Packers	56	51-3023
Social and Community Service Mgrs.	26	11-9151
Social and Human Service Assistants	33	21-1093
Social Science Research Assistants	32	19-4061
Social Sciences Teachers, Postsecondary, All Other	35	25-1069
Social Scientists and Related Workers, All Other	32	19-3099
Social Work Teachers, Post.**	35	25-1113
Social Workers, All Other	33	21-1029
Sociology Teachers, Post.**	35	25-1067
Software Developers, Applications	28	15-1132
Software Developers, Systems Software	28	15-1133
Soil and Plant Scientists	31	19-1013
Sound Engineering Technicians	39	27-4014
Special Ed. Teachers, Preschool, Kinder., and Elem. School**	36	25-2041
Special Education Teachers, Middle School**	36	25-2053
Special Education Teachers, Secondary School**	36	25-2054
Speech-Language Pathologists	40	29-1127
Stationary Engineers and Boiler Operators	59	51-8021
Statistical Assistants	50	43-9111
Statisticians	28	15-2041
Stock Clerks and Order Fillers	50	43-5081
Stonemasons	52	47-2022
Structural Iron and Steel Workers	52	47-2221
Structural Metal Fabricators and Fitters	56	51-2041
Substance Abuse and Behavioral Disorder Counselors	33	21-1011
Surgeons	40	29-1067
Surgical Technologists	41	29-2055
Survey Researchers	32	19-3022
Surveying and Mapping Technicians	30	17-3031
Surveyors	29	17-1022
Switchboard Operators, Including Answering Service	49	43-2011

**T**

Tailors, Dressmakers, and Custom Sewers	58	51-6052
Tank Car, Truck, and Ship Loaders	62	53-7121
Tapers	52	47-2082
Tax Examiners, Collectors, and Revenue Agents	27	13-2081
Tax Preparers	27	13-2082
Taxi Drivers and Chauffeurs	61	53-3041
Teacher Assistants	37	25-9041
Teachers and Instructors, All Other	36	25-3999
Team Assemblers	56	51-2092
Technical Writers	39	27-3042
Telecomm. Equip. Installers & Repairers, Except Line Installers	54	49-2022
Telecommunications Line Installers and Repairers	55	49-9052

Occupational Title	Page	SOC
Telemarketers	48	41-9041
Telephone Operators	49	43-2021
Tellers	49	43-3071
Terrazzo Workers and Finishers	52	47-2053
Textile Bleaching and Dyeing Machine Operators and Tenders	58	51-6061
Textile Cutting Machine SOT^	58	51-6062
Textile Knitting and Weaving Machine SOT^	58	51-6063
Textile Winding, Twisting, and Drawing Out Machine SOT^	58	51-6064
Textile, Apparel, and Furnishings Workers, All Other	58	51-6099
Therapists, all other	40	29-1128
Tile and Marble Setters	52	47-2044
Tire Builders	60	51-9197
Tire Repairers and Changers	54	49-3093
Title Examiners, Abstractors, and Searchers	34	23-2093
Tool and Die Makers	57	51-4111
Tool Grinders, Filers, and Sharpeners	57	51-4194
Tour and Travel Guides	46	39-7000
Tour Guides and Escorts	46	39-7011
Traffic Technicians	62	53-6041
Training and Development Mgrs.	25	11-3131
Training and Development Specialists	27	13-1151
Transit and Railroad Police	43	33-3052
Transportation Attendants, Except Flight Attendants	62	53-6061
Transportation Inspectors	62	53-6051
Transportation Security Screeners	43	33-9093
Transportation Workers, All Other	62	53-6099
Transportation, Storage, and Distribution Mgrs.	25	11-3071
Travel Agents	48	41-3041
Tree Trimmers and Pruners	45	37-3013
Truck Drivers, Heavy and Tractor-Trailer	61	53-3032
Truck Drivers, Light or Delivery Services	61	53-3033

**U**

Umpires, Referees, and Other Sports Officials	38	27-2023
Upholsterers	58	51-6093
Urban and Regional Planners	32	19-3051
Ushers, Lobby Attendants, and Ticket Takers	46	39-3031

**V**

Veterinarians	40	29-1131
Veterinary Assistants and Laboratory Animal Caretakers	42	31-9096
Veterinary Technologists and Technicians	41	29-2056
Vocational Education Teachers, Middle School**	36	25-2023
Vocational Education Teachers, Post.	36	25-1194
Vocational Education Teachers, Secondary School**	36	25-2032

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**W**

Waiters and Waitresses	44	35-3031
Watch Repairers	55	49-9064
Water & Liquid Waste Treatment Plant & System Operators	59	51-8031
Weighers, Measurers, Checkers, & Samplers, Recordkeeping	50	43-5111
Welders, Cutters, Solderers, and Brazers	57	51-4121
Welding, Soldering, and Brazing Machine SOT^	57	51-4122
Wellhead Pumpers	62	53-7073
Wholesale and Retail Buyers, Except Farm Products	27	13-1022
Woodworkers, All Other	58	51-7099
Woodworking Machine SOT^, Except Sawing	58	51-7042
Word Processors and Typists	50	43-9022
Writers and Authors	39	27-3043

**Z**

Zoologists and Wildlife Biologists	31	19-1023
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