

# Kentucky Career Profiles

A SNAPSHOT OF 150 KENTUCKY OCCUPATIONS



**Education and Workforce Development Cabinet**

Department of Workforce Investment

Office of Employment and Training



November 2016

# **KENTUCKY CAREER PROFILES**

Matthew G. Bevin, Governor

**A LABOR MARKET INFORMATION PUBLICATION BY:  
Workforce Intelligence Branch**

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## INTRODUCTION

Are you looking for information about careers, job openings, wages, advancement opportunities, or skill requirements for a particular occupation? The ***Kentucky Career Profiles*** can help readers make well-informed career decisions by providing up-to-date career and labor market information in an easy-to-use format.

The ***Kentucky Career Profiles*** publication provides information for 150 of Kentucky's top occupations by growth. Some appear separately, while others are grouped together based on their similarity. The Profiles do not include information on every occupation, but account for about two thirds of all anticipated job openings to 2024. Employment trends and projected job openings for unlisted occupations can be found in the ***Kentucky Occupational Outlook to 2024*** publication.

If you are interested in a particular profession, the Profiles provide detailed information such as the necessary skills and abilities, typical tasks, working conditions, and the localities that employ the majority of workers. Each individual profile offers a variety of information to assist you in the decision-making process.

You may want to compare occupations to help you decide which would best utilize your particular skills. Learning which jobs are growing or declining and which offer limited advancement opportunities might influence your decisions.

In addition to descriptions and details of each occupation, these Profiles also provide Kentucky labor market statistics. Each occupation offers current and projected statewide employment figures, the number of annual job openings, the median annual and hourly earnings, the midrange annual earnings and the distribution of employment by percentage throughout the state.

Each profile is concise, informative and only a page in length. These Profiles can stand alone as a resource or be combined with additional publications, such as those listed at the end of this introduction.

Additional career and labor market information is available online at the KYLMI site <https://kylmi.ky.gov>.

## INFORMATION, SOURCES AND EXPLANATIONS

This publication is a product of the Workforce Intelligence Branch, Ashley Jones (Acting Manager), Luke Morgan, and Justin Watterson. Thanks to the Occupational Employment Statistics (OES) unit for their research and collection of data.

Recognition should be given to the Occupation Information Network (O\*NET) for the worker characteristics and requirements. A more extensive list is available on the O\*NET website <http://online.onetcenter.org>.

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The **Occupational Outlook** series provides the most recent statistics available on the employment outlook in a specific area within the state. These area statistics are listed by specific occupations, projected employment and the annual average job openings.

### Occupational Outlook Series

Kentucky (Statewide)	Lincoln Trail LWDA
Bluegrass LWDA	Northern KY LWDA
Cumberlands LWDA	South Central LWDA
EKCEP LWDA	TENCO LWDA
Green River LWDA	West Kentucky LWDA
Kentuckiana LWDA	

The **Council on Postsecondary Education** [www.cpe.ky.gov](http://www.cpe.ky.gov) is the state coordinating board for postsecondary and adult education in Kentucky. The Council coordinates change and improvement in postsecondary and adult education and provides information and resources for all Kentuckians to increase their level of education.

The **Kentucky Higher Education Assistance Authority (KHEAA)** [www.kheaa.com](http://www.kheaa.com) is a public corporation and government agency established to improve students' access to higher education. KHEAA administers several financial aid programs and disseminates a wealth of information about higher education opportunities.

The **Kentucky Community and Technical College System (KCTCS)** [www.kctcs.edu](http://www.kctcs.edu) provides programs that are relevant to the workplace. Through KCTCS, Kentucky's two-year colleges work together to achieve academic excellence, economic growth and lifelong learning. They assist students in preparing for exciting careers in such varied fields as computers, health care and business. KCTCS colleges move rapidly to add or change academic and technical programs to stay relevant to today's economy. KCTCS forges partnerships between colleges and businesses to provide Kentucky workers with the skills they need today and to help industries and individuals develop the capabilities they will need tomorrow.

## **NATIONAL INFORMATION LINKS**

The **Occupational Information Network (O\*NET)** <http://www.onetonline.org/> system serves as the nation's primary source of occupational information. It provides comprehensive information on key attributes and characteristics of workers and occupations. The updated database contains information on hundreds of standardized and occupation-specific descriptors. O\*NET provides the basis for Career Exploration Tools, a set of valuable assessment instruments for anyone who is looking for information on choosing or changing a career.

**America's Job Exchange** [www.americasjobexchange.com](http://www.americasjobexchange.com) is a comprehensive, career management portal designed to "Change Your World" when it comes to finding a new job or filling a position. Developed by the same team that created the first Internet-based job portal, America's Job Exchange offers trusted, comprehensive and free career management services to job seekers, employers and states.

**America's Career InfoNet** [www.careeronestop.org](http://www.careeronestop.org) can help you identify career options and plan your education. You can explore occupations, search for wage and benefit information, view résumé samples, learn what qualifications are necessary for jobs that interest you and much more.

The **Occupational Outlook Handbook** [www.bls.gov/ooh](http://www.bls.gov/ooh) developed by the *US Department of Labor, Bureau of Labor Statistics* provides information on nature of work, working conditions, employment, training, advancement, qualifications, job outlook, earnings, related occupations and sources of additional information for more than 330 different occupations covering seven out of eight jobs in the economy.

The **US Department of Labor** [www.dol.gov](http://www.dol.gov) has the primary mission of finding work for job seekers. Nearly all government employment sites are accessible from this all-inclusive site.

The **National Center for Education Statistics College Navigator** <http://nces.ed.gov/collegenavigator> lists institutions of higher learning in a database that is searchable by geographic region, type of degree, topic of program study and total enrollment. This can be used in conjunction with the Profiles to determine potential places of study for each particular occupational profile.

## JOB DESCRIPTION

Coordinate the operations of public & private sector organizations. Formulate policies, manage daily operations, & plan the use of materials & human resources. Includes owners & managers who head small business establishments whose duties are primarily managerial.

## EDUCATION

Bachelor's degree & higher plus experience. May vary depending on industry or field.

## LOCATION OF TRAINING & EDUCATION

Statewide colleges & universities.

## SKILLS

Convey information effectively; communicate effectively in writing as appropriate for the needs of an audience; active listening; adjust actions in relation to others' actions; use logic & reasoning to identify the strengths & weaknesses of alternative solutions or approaches to problems.

## ABILITIES

Oral & written comprehension & expression; ability to combine pieces of information to form general rules or conclusions; speech clarity.

## KNOWLEDGE

Business & management principles; English language proficiency; law & government; education & training methods; economics & accounting; personnel & human resources.

## TASKS

Interview, hire & train new employees, or oversee those processes. Coordinate organization's financial activities. Establish & implement departmental policies, goals, objectives, & procedures. Manage staff, preparing work schedules & assigning specific duties. Direct activities such as sales promotions. Determine goods & services to be sold.

## WORK ACTIVITIES

Analyze financial data & management reports or records; apply conflict resolution techniques, customer service techniques, & interviewing skills; assign work to staff or employees; conduct or attend staff meetings; develop budgets; coordinate staff activities; evaluate performance of employees; explain rules, policies or regulations; implement staff policies.

## ADVANCEMENT OPPORTUNITIES

Might encourage advancement by becoming familiar with the latest developments in management techniques at national or local training programs or executive development programs.

## WORKING CONDITIONS

Must be able to quickly assess large amounts of information & data. Must be able to communicate clearly & persuasively. Other qualities include leadership, self-confidence, motivation, decisiveness, flexibility, & determination. Work indoors, often in comfortable, spacious offices. May travel often. Likely to work full week in addition to some evenings & weekends. Possibility of transfers for private sector executives.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
30,860	36,460

Average growth to 2024. Around 1,340 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$46.99	\$97,700	\$64,800 – 152,300
Kentucky	\$35.67	\$74,200	\$49,200 – 109,800

## LOCATION

One fifth of job openings in Louisville area; one seventh in Bluegrass area; others statewide.

## INDUSTRIES OF EMPLOYMENT

General & operations managers work in a wide variety of industries.

## ALTERNATE OCCUPATIONAL TITLES

Chief deputy; chief operations officer; supervisor; district managers; operations managers.

## RELATED OCCUPATIONS

Any management, supervisor, or coordinator position.

**JOB DESCRIPTION**

Determine the demand for products & services offered by a firm & its competitors & identify potential customers. Develop pricing strategies with the goal of maximizing profits or share of the market while ensuring the customers are satisfied. Oversee product development or monitor trends that indicate the need for new products & services.

**EDUCATION**

Bachelor's degree & higher plus experience.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Critical thinking; coordination; active learning; reading comprehension; writing.

**ABILITIES**

Written & oral comprehension; oral expression; speech clarity; deductive reasoning.

**KNOWLEDGE**

Sales & marketing; customer & personal service; administration & management; English language proficiency; communications & media.

**TASKS**

Advise groups on factors affecting the buying & selling of products & services. Conduct economic & commercial surveys to identify potential markets. Confer with legal staff to resolve copyright & royalty sharing problems. Consult with buying personnel & product development personnel. Participate in promotional activities. Develop pricing strategies. Develop marketing strategy based on knowledge of a variety of factors. Negotiate contracts with vendors & distributors.

**WORK ACTIVITIES**

Analyze data or information; communicate with superiors, subordinates, & peers; obtain information; make decisions & solve problems; use computers to process information; estimate quantifiable characteristics of products, events, & information; provide consultation to others.

**ADVANCEMENT OPPORTUNITIES**

Branch or department financial managers may ascend to top positions in the organization. Those with extensive experience & access to sufficient capital may start their own consulting firms.

**WORKING CONDITIONS**

Work indoors in comfortable offices but also sometimes in the field. Direct access to state-of-the-art computer services & information systems. Work extensive hours, often totaling up to 50 to 60 per week. Occasional travel to subsidiary firms or to meet customers.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

2014	2024
2,290	2,660

Fast growth to 2024. Around 90 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$61.90	\$128,800	\$91,500 – 175,100
<b>Kentucky</b>	\$44.12	\$91,800	\$66,000 – 123,200

**LOCATION**

Two fifths of job openings in Louisville area; one fifth in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

More than 17% work in professional, scientific, & technical services. Those remaining are spread across a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Advertising, marketing, promotions, & public relations managers.

**RELATED OCCUPATIONS**

Actors, producers, & directors; artists & related workers; demonstrators, product promoters, & models; market & survey researchers; public relations specialists; sales representatives, wholesale & manufacturing; & writers & editors.

**JOB DESCRIPTION**

Direct the distribution or movement of a product or service to customers. Coordinate sales distribution by establishing sales territories, quotas, & goals. Analyze sales statistics to determine sales potential & inventory requirements & monitor the preferences of customers.

**EDUCATION**

Bachelor's degree & higher plus experience.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Speaking effectively; active listening; being aware of others' reactions & understanding why they react as they do; time management; mathematics; monitoring yourself & others; active learning.

**ABILITIES**

Oral expression & comprehension; ability to read & understand ideas presented in writing; ability to come up with ideas; written expression; speech clarity; visualization; inductive & deductive reason.

**KNOWLEDGE**

Sales & marketing; business & management principles; mathematics; computers & electronics; English language proficiency; customer service.

**TASKS**

Resolve customer complaints regarding sales & service. Monitor customer preferences. Direct & coordinate activities involving sales. Determine price schedules & discount rates. Review operational records & reports to project sales & determine profitability. Coordinate & review activities in sales. Consult with department heads. Prepare budgets & approve budget expenditures. Represent company at trade meetings.

**WORK ACTIVITIES**

Communicate with persons outside organization; make decisions & solve problems; communicate with supervisors, peers, or subordinates & with persons outside organization; maintain interpersonal relationships; stay knowledgeable; obtain information.

**ADVANCEMENT OPPORTUNITIES**

Experience, ability, & leadership are emphasized for promotion, but advancement can be accelerated through participation in management training programs & through additional in-house education or at local colleges & universities.

**WORKING CONDITIONS**

Work in offices close to those of top managers. Long hours, including evenings & weekends, are common. Substantial travel may be involved. Job transfers between headquarters & regional offices are common. Converse via telephone & email often. Important to maintain contacts. Will often coordinate & lead others in a team environment.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
3,620	4,080

Average growth to 2024. Around 130 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$54.74	\$113,900	\$76,300 – 164,300
<b>Kentucky</b>	\$45.06	\$93,700	\$66,000 – 134,000

**LOCATION**

A third of all job openings in Louisville area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Sales management occupations occur in a variety of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Advertising, marketing, promotions, & public relations managers.

**RELATED OCCUPATIONS**

Actors, producers, & directors; artists & related workers; demonstrators, product promoters, & models; market & survey researchers; public relations specialists; sales representatives, wholesale & manufacturing; writers & editors.

**JOB DESCRIPTION**

Coordinate supportive services of an organization, such as record keeping, mail distribution & other office support services. May oversee facilities planning & maintenance & custodial operations.

**EDUCATION**

Bachelor's degree & higher plus work experience.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Speaking effectively; active listening; being aware of others' reactions & understanding why they react as they do; instruction; time management; reading comprehension; active listening; active learning; writing.

**ABILITIES**

Oral expression & comprehension; speech clarity; ability to read & understand information & ideas presented in writing; ability to come up with ideas; written expression; inductive reasoning; ability to tell when something is wrong or is likely to go wrong.

**KNOWLEDGE**

Business & management principles; administrative & clerical procedures; personnel & human resources procedures; English language proficiency; customer service.

**TASKS**

Acquire, distribute & store supplies. Analyze internal processes & implement policy changes to improve operations. Conduct classes to teach procedures to staff. Coordinate the supportive services department. Dispose of surplus or unclaimed property. Hire & terminate clerical & administrative personnel. Manage leasing of facility space. Oversee construction, repair, & maintenance within facility. Participate in architectural & engineering planning & design. Plan budgets for contracts. Prepare & review operational reports & schedules to ensure accuracy & efficiency. Set goals & deadlines for the department.

**WORK ACTIVITIES**

Communicate with persons outside organization; make decisions & solve problems; communicate with supervisors, peers, or subordinates & with persons outside organization; organize, plan, & prioritize work; obtain information.

**ADVANCEMENT OPPORTUNITIES**

Move to other management positions or to a larger organization. Certified Administrative Manager (CAM) designation offered by the Institute of Certified Professional Managers can increase advancement potential. Earning a Master's Degree will also aid promotion.

**WORKING CONDITIONS**

Work in offices close to those of top managers. Long hours, including evenings & weekends, are common. Substantial travel may be involved. Job transfers between headquarters & regional offices are common. Converse via telephone & email often. Frequently necessary to have face-to-face discussions. Will often coordinate & lead others in a team environment.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
4,150	5,310

Fast growth to 2024. Around 190 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$41.40	\$86,100	\$63,200 – 116,600
Kentucky	\$34.00	\$70,700	\$51,400 – 92,700

**LOCATION**

Over a third of all job openings in Bluegrass area; one third in Louisville area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Administrative services managers work in a variety of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Office manager; administrative director.

**RELATED OCCUPATIONS**

Office & administrative support worker supervisors & managers; cost estimators; property, real estate, & community association managers; purchasing managers, buyers, & purchasing agents; & top executives.

**JOB DESCRIPTION**

Coordinate activities in such fields as electronic data processing, information systems, systems analysis, & computer programming.

**EDUCATION**

Bachelor's degree & higher plus work experience.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Speaking effectively; active listening; adjusting actions to actions of others; writing; being aware of the actions of others & understanding why they react as they do; reading comprehension; active listening; active learning; management of personnel; operations analysis.

**ABILITIES**

Oral expression & comprehension; speech clarity; ability to read & understand information & ideas presented in writing; written expression; inductive & deductive reasoning; mathematical reasoning & facility.

**KNOWLEDGE**

Business & management principles; administrative & clerical procedures; personnel & human resources procedures; English language proficiency; customer service; psychology & mathematics; computers & electronics; economics & accounting principles.

**TASKS**

Assign & review the work of systems analysts, programmers, & others. Consult with users, management, vendors, & technicians to assess needs & system requirements. Develop computer information resources. Evaluate data processing proposals. Direct daily operations of department. Evaluate technology use & needs & recommend improvements. Develop & interpret organizational goals, policies, & procedures. Manage backup, security & user help systems.

**WORK ACTIVITIES**

Direct subordinates; make decisions & solve problems; maintain interpersonal relationships; coordinate work & activities of others; keep knowledge up to date; obtain information.

**ADVANCEMENT OPPORTUNITIES**

Possible to become managers in non-technical areas such as marketing, human resources, or sales.

**WORKING CONDITIONS**

Work 40 hours a week in an office environment. Overtime is common when system malfunctions & errors occur. Substantial travel may be involved, depending on the size of the network in geographic terms. Important to be accurate. Crucial to maintain contact with others. Will often coordinate & lead others in a team environment.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
3,980	4,780

Fast growth to 2024. Around 130 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$63.27	\$131,600	\$101,900 – 166,200
Kentucky	\$48.29	\$100,400	\$78,200 – 129,700

**LOCATION**

Nearly a third of job openings in Louisville area; one quarter in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Nearly 23% of computer & information systems managers work in professional, scientific, & technical services; those remaining work in a variety of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Information Technology (IT) director or manager.

**RELATED OCCUPATIONS**

Computer programmers; computer software engineers; computer systems analysts, database administrators, & computer scientists; computer support specialists & systems administrators.

**JOB DESCRIPTION**

Coordinate activities related to the construction & maintenance of structures, facilities, & systems. Participate in the conceptual development of a construction project & oversee its implementation.

**EDUCATION**

Bachelor's degree.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Critical thinking; active learning; management of personnel resources; adjusting actions in relation to actions of others; reading comprehension; mathematics; judgment & decision making; time management.

**ABILITIES**

Oral expression & comprehension; ability to read & understand information & ideas presented in writing; written expression; ability to tell when something is wrong or is likely to go wrong.

**KNOWLEDGE**

Business & management principles; building & construction; personnel & human resources procedures; English language proficiency; public safety & security; mathematics.

**TASKS**

Confer with supervisors, owners, contractors, & design professionals to discuss matters such as work procedures, complaints, & construction problems. Determine labor requirements & dispatch workers to construction sites. Direct & supervise workers. Interpret & explain plans & contract terms to staff & clients. Plan, organize, & direct activities concerned with the construction & maintenance. Maintain budget & financial plans. Schedule projects. Oversee workers who complete specific pieces of the project. Study job specifications to determine appropriate methods. Develop & implement quality control programs.

**WORK ACTIVITIES**

Communicate with supervisors, peers, or subordinates; coordinate the work & activities of others; inspect equipment, structures & material; make decisions & solve problems; guide & direct subordinates; monitor processes, material & surroundings.

**ADVANCEMENT OPPORTUNITIES**

Vary depending upon an individual's performance & the size & type of company for which they work. Can become an independent consultant.

**WORKING CONDITIONS**

Work mostly indoors, but sometimes outdoors in the elements. Full workweek with occasional overtime & possible "on call" status in the event of delays or problems. Work from a main office or a field office located onsite. Often required to survey a job site on foot. Requires protective gear at times. Uncomfortable noise levels are possible.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

2014	2024
6,070	6,660

Fast growth to 2024. Around 140 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$42.02	\$87,400	\$66,700 – 117,400
Kentucky	\$36.20	\$75,300	\$59,600 – 97,800

**LOCATION**

Almost half of job openings in Louisville area; a quarter in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

About 61% of construction managers are self-employed. The rest are spread across a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Construction superintendent.

**RELATED OCCUPATIONS**

Architects, except landscape & naval; civil engineers; cost estimators; landscape architects; & engineering & natural sciences managers.

**JOB DESCRIPTION**

Coordinate medicine & health services in hospitals, clinics, managed care organizations, public health agencies, or similar organizations.

**EDUCATION**

Bachelor's degree & higher plus experience. Licensing through the Kentucky Board of Licensure for Nursing Home Administrators.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Critical thinking; active learning; monitoring; actively looking for ways to help people; service orientation; writing; judgment & decision making; time management; speaking effectively; reading comprehension.

**ABILITIES**

Oral & written expression & comprehension; ability to read & understand information & ideas presented in writing; ability to tell when something is wrong or is likely to go wrong; inductive & deductive reasoning; speech clarity & recognition.

**KNOWLEDGE**

Business & management principles; customer service; personnel & human resources procedures; English language proficiency; medicine & dentistry; law & government; education & training; public safety & security; computers. & electronics; therapy & counseling.

**TASKS**

Direct, supervise, establish objectives, & evaluate work activities of medical personnel. Recruit & hire staff. Develop & maintain computerized record management systems to store & process data & to produce reports. Implement organizational policies & procedures for the facility or medical unit. Conduct & administer fiscal operations. Establish work schedules & assignments for staff. Maintain communication between governing boards, medical staff, & department heads. Monitor & ensure effective use of resources. Maintain awareness of advances in medicine.

**WORK ACTIVITIES**

Communicate with supervisors, peers, or subordinates; make decisions & solve problems; coordinate the work & activities of others; monitor processes, material & surroundings.

**ADVANCEMENT OPPORTUNITIES**

Advance through extended experience, ability, & leadership & potentially through management training activities. May move into upper management or open one's own business.

**WORKING CONDITIONS**

Work indoors in hospitals & clinics most often. Long hours including nights & weekends are common. The potential for stress & pressure exist in a medical environment.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
5,020	6,780

Very fast growth to 2024. Around 300 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$45.43	\$94,500	\$72,500 – 123,700
Kentucky	\$39.02	\$81,200	\$64,100 – 107,300

**INDUSTRIES OF EMPLOYMENT**

Ambulatory health care services employ about 36% of medical & health services managers; 32% work in hospitals; the rest are spread across several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Clinical director; director of nursing.

**RELATED OCCUPATIONS**

Insurance underwriters; social & community service managers.

**JOB DESCRIPTION**

Plan, organize, or coordinate the activities of a social service program or community outreach organization. Oversee the program or organization's budget & policies regarding participant involvement, program requirement, & benefits. May involve directing social workers, counselors, or probation officers.

**EDUCATION**

Bachelor's degree.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Active listening; speaking; social perceptiveness; time management; instructing.

**ABILITIES**

Oral & written comprehension; oral & written expression; speech clarity; problem sensitivity.

**KNOWLEDGE**

English language proficiency; education & training; psychology; customer & personal service; sociology & anthropology.

**TASKS**

Act as consultants to staff & other community programs regarding the interpretation of program-related policies. Analyze proposed legislation, regulations, or rule changes to determine how agency services could be impacted. Direct activities of staff members & volunteers. Direct fundraising activities & the preparation of public relations materials. Establish & maintain relationships with other. Establish & oversee administrative procedures to meet objectives. Evaluate staff performance. Plan & administer budgets. Prepare & maintain records & reports. Recruit new staff. Research & analyze member or community needs to determine program directions & goals.

**WORK ACTIVITIES**

Establish & maintain interpersonal relationships; make decisions & solve problems; communicate with peers, supervisors, & subordinates; work directly with the public; obtain information.

**ADVANCEMENT OPPORTUNITIES**

May ascend to top positions in the community depending on experience level & accomplishments.

**WORKING CONDITIONS**

Will likely work indoors depending upon the organization's activities. Standard 40-hour workweek is common, but weekends & evenings may arise if necessary. Must maintain contact with others & coordinate & lead others within a group.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
3,500	4,300

Fast growth to 2024. Around 170 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$23.52	\$63,500	\$48,900 – 84,200
Kentucky	\$25.43	\$52,900	\$41,700 – 68,200

**LOCATION**

Almost one third of job openings in Louisville area; one third in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Nearly 31% work in social assistance; 18% for religious, grantmaking, civic, professional, and similar organizations. The remainder work in a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Grant manager; field director; outreach coordinator; welfare officer; vocational rehabilitation administrator.

**RELATED OCCUPATIONS**

Most management, business, & financial occupations; legislators; medical & health services managers; social & human services assistants; personal & home care aides.

**JOB DESCRIPTION**

Review settled claims to determine that payments & settlements have been made in accordance with company practices & procedures. Report all irregularities. Confer with legal counsel on claims requiring litigation.

**EDUCATION**

Long-term on-the-job training. Licensing through the Kentucky Office of Insurance.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Reading comprehension; judgment & decision making; active listening; time management; writing; critical thinking.

**ABILITIES**

Deductive & inductive reasoning; oral & written comprehension & expression; problem sensitivity; speech clarity.

**KNOWLEDGE**

Customer & personal service; English language proficiency; computers & electronics; mathematics; law & government; administrative & clerical procedures.

**TASKS**

Investigate, evaluate & settle claims, applying technical knowledge & human relations skills to effect fair & prompt disposal of cases & to contribute to a reduced loss ratio. Analyze data used in settling claim to determine its validity in payment of claims. Confer with legal counsel on claims requiring litigation. Report overpayments, underpayments, & other irregularities. Analyze information gathered by investigation & reports findings & recommendations. Collect evidence to support contested claims in court.

**WORK ACTIVITIES**

Obtain, document, & record information; communicate with people inside & outside an organization; interact with computers; establish & maintain interpersonal relationships.

**ADVANCEMENT OPPORTUNITIES**

May be promoted to more responsible managerial or administrative jobs with experience. May also rise to supervisor or manager of the investigations department. Many choose to start their own independent adjusting or auto damage appraising firms.

**WORKING CONDITIONS**

Working environments vary greatly. Most work a 40-hour week in a typical office, but will sometimes work outside of office, especially appraisers. Some weekend & evening work might occur. Confrontations with claimants can often be stressful & dangerous.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
3,640	3,750

Fast growth to 2024. Around 100 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$30.28	\$63,000	\$47,600 – 77,900
Kentucky	\$27.24	\$56,700	\$43,200 – 72,600

**LOCATION**

Two thirds of all openings in Louisville area; one quarter in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Over 76% work for insurance carriers & related activities; 19% for federal government; remaining spread across a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Claims examiners; claims investigators.

**RELATED OCCUPATIONS**

Cost estimators; bill & account collectors; medical records & health information technicians; billing & posting clerks; credit authorizers, checkers, & clerks; bookkeeping, accounting, & auditing clerks; tax examiners, collectors, & revenue agents; accountants & auditors.

**JOB DESCRIPTION**

Prepare cost estimates for product manufacturing, construction projects, or services to aid management in bidding on or determining price of product or service.

**EDUCATION**

Work experience in a related occupation.

**LOCATION OF TRAINING & EDUCATION**

See *Related Occupations*.

**SKILLS**

Mathematics; writing; reading comprehension; time management; active listening.

**ABILITIES**

Oral & written expression & comprehension; information ordering; near vision; speech clarity & recognition; inductive, deductive, & mathematical reasoning.

**KNOWLEDGE**

Administration & management; English language proficiency; customer & personal service; production & processing; mathematics.

**TASKS**

Analyze blueprints, specifications, proposals, & other documentation, to prepare time, cost, & labor estimates. Compute cost factors used for preparing estimates for management & determining cost effectiveness. Conduct special studies to develop & establish standard hour & related cost data or to effect cost reduction. Consult with clients, vendors, or other individuals to discuss & formulate estimates & resolve issues. Prepare estimates for selecting vendors or subcontractors, & determining cost effectiveness.

**WORK ACTIVITIES**

Communicate with persons both inside & outside of organization; obtain information; schedule work & activities; establish & maintain interpersonal relationships.

**ADVANCEMENT OPPORTUNITIES**

Often comes in the form of higher pay & prestige. Some move into management positions. May go into business as consultants, providing estimating services for a fee.

**WORKING CONDITIONS**

Most time spent in an office, but might make visits to sites for estimates. Normally work a 40-hour week, but overtime is common. Might frequently travel between a firm’s headquarters & its subsidiaries. Often work under pressure & stress, especially when facing deadlines. Accuracy is imperative.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
1,840	2,210

Very fast growth to 2024. Around 90 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$29.03	\$60,400	\$45,700 – 79,000
<b>Kentucky</b>	\$27.30	\$56,800	\$43,300 – 73,900

**LOCATION**

Over a third of job openings in Louisville area; a fifth in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Over 44% work for specialty trade contractors; 13% in construction of buildings. Those remaining work in a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Building estimator; construction estimator; sales engineer; project manager; design consultant.

**RELATED OCCUPATIONS**

Accountants & auditors; budget analysts; claims adjusters, appraisers, examiners, & investigators; economists; financial analysts & personal financial advisors; insurance underwriters; loan officers; market & survey researchers; operations research analysts; industrial production managers; construction managers.

**JOB DESCRIPTION**

Recruit & place workers.

**EDUCATION**

Bachelor's degree.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Reading comprehension; service orientation; active listening; speaking; persuasion; service orientation; negotiation.

**ABILITIES**

Oral expression & comprehension; speech clarity & recognition.

**KNOWLEDGE**

English language proficiency; clerical & administrative procedures; customer & personal service; administration & management; foreign language; personnel & human resources; education & training.

**TASKS**

Conduct or arranges for skills, intelligence, or psychological testing of applicants. Contact employers to solicit orders for job vacancies & record information on forms to describe duties, hiring requirements, & related data. Evaluate selection & testing techniques by conducting research or follow-up activities & conferring with management & supervisory personnel. Inform applicants of job duties & responsibilities, compensation & benefits, work schedules, working conditions, promotional opportunities, & other related information. Interview job applicants to select people who meet employer qualifications.

**WORK ACTIVITIES**

Interact with computers; work directly with the public; establish & maintain interpersonal relationships; obtain information; judge the qualities of things, services, or people; organize, plan, & prioritize work.

**ADVANCEMENT OPPORTUNITIES**

May advance to a managerial position. Exceptional human resources workers may be promoted to director of human resources or industrial relations, which can eventually lead to a top managerial or executive position. Others may join a consulting firm or open their own business.

**WORKING CONDITIONS**

Usually work in office setting. Most work a standard 35- to 40-hour week. Some might travel extensively for recruitment at campuses, job fairs, or other events.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

2014	2024
5,870	6,820

Fast growth to 2024. Around 240 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$28.06	\$58,400	\$43,800 – 77,300
Kentucky	\$24.32	\$50,600	\$37,400 – 66,400

**LOCATION**

Over a quarter of job openings in Louisville area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Around 24% work in employment services; 14% for state government; 8% for management, scientific, & technical consulting services; the remainder work in any of various other industries.

**ALTERNATE OCCUPATIONAL TITLES**

Interviewers; personnel recruiters.

**RELATED OCCUPATIONS**

Counselors; education administrators; public relations specialists; lawyers; psychologists; social & human service assistants; social workers.

**JOB DESCRIPTION**

All business operations specialists not listed separately.

**EDUCATION**

Bachelor's degree & higher.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Active listening; reading comprehension; systems evaluation & analysis; reading comprehension; critical thinking; judgment & decision making.

**ABILITIES**

Oral & written expression & comprehension; ability to read & understand information & ideas presented in writing; ability to tell when something is wrong or is likely to go wrong; speech clarity.

**KNOWLEDGE**

Personnel & human resources procedures; English language proficiency; business & management principles; mathematics.

**TASKS**

As this is a generalized occupational title, work tasks may vary. Some may include: Review forms & reports, & confer with management to identify problems & suggest improvements. Implement records management program for filing, protection, & retrieval of records, & assure compliance with program. Interview personnel. Prepare manuals & train workers in use of new forms, reports, procedures or equipment, according to organizational policy. Evaluate & recommend changes of forms & reports. Recommend purchase of storage equipment, & design area layout. Plan study of work problems. Gather & organize information on problems or procedures. Prepare recommendations for implementation of new systems or procedures.

**WORK ACTIVITIES**

Communicate with supervisors, peers, & subordinates; provide advice to others; develop objectives & strategies; organize, plan, & prioritize work; obtain & process information; make decisions & solve problems.

**ADVANCEMENT OPPORTUNITIES**

May advance to higher positions within corporation or entity.

**WORKING CONDITIONS**

Split time between office & client sites. Travel is essential. Mostly a 40-hour workweek, but uncompensated overtime is possible in order to meet deadlines. Must maintain contact with others. Coordinate & lead others. Important to be precise.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
12,700	14,320

Fast growth to 2024. Around 310 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$32.77	\$68,200	\$50,700 – 90,600
<b>Kentucky</b>	\$28.60	\$59,500	\$45,900 – 77,200

**LOCATION**

About a third of job openings in Louisville area; a fifth in Bluegrass area; a tenth in Northern Kentucky; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Over 23% work for federal government; 11% work for state government; others work in several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Operations research analysts; program analysts; management consultants.

**RELATED OCCUPATIONS**

Accountants & auditors; budget analysts; cost estimators; financial analysts & personal financial advisors; operations research analysts; economists; market & survey researchers.

**JOB DESCRIPTION**

Analyze financial information & prepare financial reports or accounting records to determine or maintain record of assets, liabilities, profit & loss, tax liability, or other financial activities within an organization.

**EDUCATION**

Bachelor's degree & higher; licensing through the Kentucky Board of Accountancy.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Mathematics; active listening; systems evaluation & analysis; reading comprehension; critical thinking; judgment & decision making; complex problem solving; monitoring.

**ABILITIES**

Oral & written expression; mathematical reasoning & facility; ability to tell when something is wrong or is likely to go wrong; speech clarity; deductive reasoning.

**KNOWLEDGE**

Economics & accounting; mathematics; computers; customer service; English language proficiency.

**TASKS**

Advise clients in areas of financial concern. Advise management about issues such as resource utilization, tax strategies, & the assumptions underlying budget forecasts. Analyze business operations, trends, costs, revenues, financial commitments, & obligations in order to project future revenues & expenses or to provide advice. Appraise property values. Compute taxes for returns. Maintain financial data records in computer databases. Investigate bankruptcies & prepare reports. Maintain & examine the records of government agencies. Examine financial reports to assess accuracy. Provide auditing services to businesses & individuals. Represent clients before taxing authorities.

**WORK ACTIVITIES**

Communicate with supervisors, peers, & subordinates; provide advice to others; maintain interpersonal relationships; organize, plan, & prioritize work; obtain, process, document, & record information; make decisions & solve problems.

**ADVANCEMENT OPPORTUNITIES**

Attain management positions; work for the Internal Revenue Service.

**WORKING CONDITIONS**

Work indoors in typical office setting. May travel to client sites. Work normal forty hour week, sometimes longer. Tax specialists are especially busy during tax season. Must work in team environment. Accuracy is important. Responsible for outcomes & results. Maintain contacts through email & telephone.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

	2014	2024
	12,560	14,930

Very fast growth to 2024. Around 570 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$32.30	\$67,200	\$52,100 – 89,500
Kentucky	\$27.03	\$56,200	\$43,300 – 74,900

**LOCATION**

A third of job openings in Louisville area; about one fifth in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

About 30% work in professional, scientific, & technical services; the rest are spread throughout several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Business analyst; accounting manager; assurance manager.

**RELATED OCCUPATIONS**

Budget analysts; cost estimators; loan officers; financial analysts & personal financial advisors; tax examiners, collectors, & revenue agents; bill & account collectors; bookkeeping, accounting, & auditing clerks.

**JOB DESCRIPTION**

Advise clients on financial plans utilizing knowledge of tax & investment strategies, securities, insurance, pension plans, & real estate.

**EDUCATION**

Bachelor's degree.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Active listening; speaking; mathematics; judgment & decision making; service orientation.

**ABILITIES**

Number facility; mathematical reasoning; oral comprehension; problem sensitivity; oral expression.

**KNOWLEDGE**

Economics & accounting; mathematics; administration & management; customer & personal service; English language proficiency.

**TASKS**

Analyze financial information to determine strategies for meeting clients' financial objectives. Authorize release of financial aid funds to students. Build & maintain client bases. Collect information from students to determine their eligibility for specific financial aid programs. Conduct seminars & workshops on financial planning. Contact clients periodically to determine if there have been changes in their financial status. Devise debt liquidation plans. Guide clients in the gathering of information such as bank account records, income tax returns, life & disability insurance records, pension plan information, & wills. Interview clients in order to develop a financial plan. Monitor financial market trends to ensure that plans are effective, & to identify any necessary updates. Participate in the selection of candidates for specific financial aid awards. Recommend strategies clients can use to achieve their financial goals & objectives. Review clients' accounts & plans regularly to determine whether life changes, economic changes, or financial performance indicate a need for plan reassessment.

**WORK ACTIVITIES**

Provide consultation & advice to others; communicate with persons outside an organization; obtain, document, & record information.

**ADVANCEMENT OPPORTUNITIES**

May move into managerial positions, but most advance by accumulating clients & managing more assets. Also may obtain the Chartered Financial Consultant (ChFC) designation, which requires experience & the completion of an eight-course program of study.

**WORKING CONDITIONS**

Usually work indoors in safe, comfortable offices or one's own home. Many enjoy the challenge of helping firms or people make financial decisions. Usually work standard business hours, but also may schedule evening & weekend meetings with clients. Many teach evening classes or hold seminars in order to bring in more clients.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
2,420	2,890

Very fast growth to 2024. Around 110 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$42.86	\$89,100	\$57,200 – 153,300
<b>Kentucky</b>	\$19.67	\$62,400	\$40,900 – 107,800

**LOCATION**

Over a third of all openings in Northern Kentucky area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

More than 17% work in securities, commodity contracts, & other financial investments & related activities; others spread throughout several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Budget counselor; asset manager; credit counselor; portfolio manager; investment consultant.

**RELATED OCCUPATIONS**

Accountants & auditors; financial managers; insurance sales agents; real estate brokers & sales agents; securities, commodities, & financial services sales agents.

**JOB DESCRIPTION**

Analyze data processing problems for application to electronic data processing systems. Analyze user requirements, procedures, & problems to improve existing systems & review computer system capabilities. May supervise computer programmers.

**EDUCATION**

Bachelor's degree.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Programming; writing; troubleshooting; operations analysis; reading comprehension.

**ABILITIES**

Written expression; oral & written comprehension; mathematical reasoning; deductive reasoning; near vision.

**KNOWLEDGE**

Education & training; computers & electronics; mathematics; English language proficiency; customer service.

**TASKS**

Analyze information processing or computation needs & plan & design computer systems. Assess the usefulness of pre-developed application packages & adapt them to a user environment. Confer with clients regarding the nature of the information processing or computation needs a computer program is to address. Define the goals of the system & devise flow charts & diagrams describing logical operational steps of programs. Determine computer software or hardware needed to set up or alter system. Develop system design procedures, test procedures, & quality standards. Modify system to improve work flow. Provide staff & users with assistance solving computer related problems, such as malfunctions & program problems. May recommend new equipment or software packages.

**WORK ACTIVITIES**

Interact with computers; obtain information; provide consultation to others; think creatively; maintain up-to-date knowledge; communicate with peers, supervisors, or subordinates.

**ADVANCEMENT OPPORTUNITIES**

Vendor & professional certifications can greatly aid advancement.

**WORKING CONDITIONS**

Comfortable office settings. Usually a forty-hour week, but overtime may be necessary for deadlines or specific problems. As technology advances, will be more able to remotely access problems. Coordinate & lead others. Important to be accurate. Must maintain contact with others. Use of hands & consequence of error.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
3,900	4,880

Very fast growth to 2024. Around 150 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$41.25	\$85,800	\$66,300 – 109,200
<b>Kentucky</b>	\$33.78	\$70,300	\$55,100 – 92,200

**LOCATION**

Over two fifths of all job openings in Louisville area; about a third in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Over 28% work in professional, scientific, & technical services; 16% work for insurance carriers & related activities; 11% for state government; others spread across a variety of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Information technology (IT) specialist; computer specialist.

**RELATED OCCUPATIONS**

Computer programmers; computer software engineers; computer & information systems managers; financial analysts & personal financial advisors; urban & regional planners; engineers; mathematicians; statisticians; operations research analysts; management analysts.

**JOB DESCRIPTION**

Develop general computer applications software or specialized utility programs. Analyze user needs & develop software solutions. Design software or customize software for client use with the aim of optimizing operational efficiency. May analyze & design databases.

**EDUCATION**

Bachelor's degree.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Programming; mathematics; troubleshooting; scientific rules & methods; operations analysis.

**ABILITIES**

Oral & written expression; oral & written comprehension; mathematical reasoning; inductive reasoning.

**KNOWLEDGE**

Education & training; business & management principles; mathematics; engineering & technology; computers & electronics; English language proficiency; design techniques.

**TASKS**

Analyze information to determine, recommend, & plan computer specifications & layouts. Analyze user needs & software requirements to determine feasibility of design within time & cost constraints. Confer with others to design system & to obtain information on project limitations & capabilities, performance requirements & interfaces. Coordinate software system installation & monitor equipment functioning to ensure specifications are met. Design, develop & modify software systems. Determine system performance standards. Develop & direct software system testing & validation procedures, programming, & documentation. Store, retrieve, & manipulate data for analysis of system capabilities & requirements.

**WORK ACTIVITIES**

Interact with computers; advise & consult with others; draft, lay out, & specify technical devices, parts, & equipment; think creatively; maintain up-to-date knowledge.

**ADVANCEMENT OPPORTUNITIES**

Advance to management roles through experience.

**WORKING CONDITIONS**

Comfortable office settings. Potential travel in order to deal with customers. Important to be accurate. Maintain contact with others, including external customers. Spend time sitting at a computer station. Susceptible to eyestrain, back discomfort, or hand & wrist problems, such as carpal tunnel syndrome.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
3,900	4,880

Very fast growth to 2024. Around 150 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$41.25	\$85,800	\$66,300 – 109,200
<b>Kentucky</b>	\$33.78	\$70,300	\$55,100 – 92,200

**LOCATION**

More than three quarters of all job openings in Louisville area; more than a fifth in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

About 30% work in professional, scientific, & technical services; 13% in securities, commodity contracts, & other financial investments & related activities; others work in a variety of other industries.

**ALTERNATE OCCUPATIONAL TITLES**

Computer consultant; software developer; programmer.

**RELATED OCCUPATIONS**

Computer systems analysts, database administrators, & computer scientists; computer programmers; financial analysts & personal financial advisors; computer hardware engineers; computer support specialists & systems administrators; statisticians; mathematicians; management analysts; actuaries; operations research analysts.

**JOB DESCRIPTION**

Develop & test operating systems-level software, compilers, & network distribution software for general computing applications. Set operational specifications & formulate & analyze software requirements.

**EDUCATION**

Bachelor's degree.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Programming; mathematics; troubleshooting; scientific rules & methods; operations analysis.

**ABILITIES**

Oral & written expression; oral & written comprehension; mathematical reasoning; inductive reasoning.

**KNOWLEDGE**

Education & training; mathematics; engineering & technology; English language proficiency; management principles; computers & electronics; business & design techniques.

**TASKS**

Analyze information to determine, recommend, & plan computer specifications & layouts. Analyze user needs & software requirements to determine feasibility of design within time & cost constraints. Confer with others to design system & to obtain information on project limitations & capabilities, performance requirements & interfaces. Coordinate software system installation & monitor equipment functioning to ensure specifications are met. Design, develop & modify software systems. Determine system performance standards. Develop & direct software system testing & validation procedures, programming, & documentation. Store, retrieve, & manipulate data for analysis of system capabilities & requirements.

**WORK ACTIVITIES**

Interact with computers; advise & consult with others; draft, lay out, & specify technical devices, parts, & equipment; think creatively; maintain up-to-date knowledge.

**ADVANCEMENT OPPORTUNITIES**

Advance to management roles through experience.

**WORKING CONDITIONS**

Comfortable office settings. Potential travel in order to deal with customers. Important to be accurate. Maintain contact with others, including external customers. Spend time sitting at a computer station. Susceptible to eyestrain, back discomfort, or hand & wrist problems, such as carpal tunnel syndrome.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
1,960	2,400

Very fast growth to 2024. Around 70 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$50.76	\$105,600	\$82,400 – 131,700
<b>Kentucky</b>	\$40.65	\$84,600	\$67,900 – 100,800

**LOCATION**

Nearly a third of all job openings in each of Bluegrass & Louisville areas; others statewide.

**INDUSTRIES OF EMPLOYMENT**

About 33% work in computer and electronic product manufacturing; 28% work for professional, scientific, & technical services; remainder work in several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Software developer; systems programmer; network engineer.

**RELATED OCCUPATIONS**

Computer systems analysts, database administrators, & computer scientists; computer programmers; financial analysts & personal financial advisors; computer hardware engineers; computer support specialists & systems administrators; statisticians; mathematicians; management analysts; actuaries; operations research analysts.

**JOB DESCRIPTION**

Install, configure, & support an organization's local area network (LAN), wide area network (WAN), & internet system or a segment of a network system. Maintain network hardware & software. Monitor network to ensure network availability to all system users & perform necessary maintenance to support network availability.

**EDUCATION**

Bachelor's degree.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Programming; operations analysis; writing; installation; critical thinking; instructing; mathematics; technology design; active listening.

**ABILITIES**

Oral expression; oral & written comprehension; deductive reasoning; near vision.

**KNOWLEDGE**

Mathematics; computers & electronics; administration & management; English language proficiency; public safety & security.

**TASKS**

Confer with network users about how to solve system problems. Test computer hardware, networking software & operating system software. Diagnose hardware & software problems, & replace defective components. Maintain & administer computer networks & related computing environments. Monitor network performance in order to determine whether adjustments need to be made. Operate master consoles in order to monitor the performance of computer systems & networks. Perform backups & recovery operations. Implement network security measures in order to protect data, software, & hardware. Recommend changes to improve systems & network configurations.

**WORK ACTIVITIES**

Interact with computers; make decisions & solve problems; provide consultation to others; document & record information.

**ADVANCEMENT OPPORTUNITIES**

Vendor & professional certifications can greatly aid advancement.

**WORKING CONDITIONS**

Comfortable office settings, mostly sitting at a desk. Usually a forty-hour week, but overtime may be necessary for deadlines or specific problems. As technology advances, will be more able to remotely access problems. Coordinate & lead others. Important to be accurate. Interact with others. Spend time making repetitive motions. Use of hands required. Must be responsible for mistakes or errors.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
4,590	5,270

Very fast growth to 2024. Around 130 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$37.41	\$77,800	\$60,400 – 99,500
<b>Kentucky</b>	\$29.09	\$60,500	\$47,100 – 78,300

**LOCATION**

Nearly a third of all job openings in Louisville area; nearly a quarter in Bluegrass area; one tenth in Northern Kentucky area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Network & computer systems administrators work in a wide variety of industries, but 21% work for professional, scientific, & technical services & 20% work in educational services.

**ALTERNATE OCCUPATIONAL TITLES**

Network administrators; systems administrators.

**RELATED OCCUPATIONS**

Computer programmers; computer software engineers; computer systems analysts, database administrators, & computer scientists.

**JOB DESCRIPTION**

Provide technical assistance to computer system users. Answer questions or resolve computer problems for clients. May provide assistance concerning the use of computer hardware & software.

**EDUCATION**

Associate's degree.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Instructing; operations analysis; quality control analysis; troubleshooting; reading comprehension; critical thinking; active listening; judgment & decision making; equipment selection; operation monitoring.

**ABILITIES**

Oral expression; oral & written comprehension; problem sensitivity; speech clarity; near vision.

**KNOWLEDGE**

Education & training; telecommunications; English language proficiency; computers & electronics; mathematics; engineering & technology.

**TASKS**

Answer user inquiries regarding computer software & hardware operation to resolve problems. Observe system functioning to verify correct operations & detect errors. Maintain record of daily activities. Read technical manuals, confer with users, & conduct computer diagnostics to investigate & resolve problems. Maintain knowledge of hardware & software. Refer major hardware or software problems or defective products to vendors or technicians for service. Conduct office automation feasibility studies. Confer with staff, users, & management to establish requirements for new systems or modifications. Develop training materials & procedures, and/or train users in the proper use of hardware & software.

**WORK ACTIVITIES**

Interact with computers; obtain information; identify objects, events, & actions; make decisions & solve problems; maintain up-to-date knowledge; repair & maintain electronic equipment.

**ADVANCEMENT OPPORTUNITIES**

Continuing training & maintaining a current knowledge will improve opportunity for advancement.

**WORKING CONDITIONS**

Comfortable office settings. Usually a 40-hour week, but overtime may be necessary for major technical issues. Might be on call. As technology advances, will be able to remotely access problems more & more. Coordinate & lead others. Important to be accurate. Maintain contact with others. Spend time sitting at a computer station.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
6,190	7,630

Very fast growth to 2024. Around 220 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$23.38	\$48,600	\$37,300 – 63,000
Kentucky	\$19.83	\$41,200	\$32,700 – 52,900

**LOCATION**

Nearly half of all job openings in Bluegrass area; more than two fifths in Louisville area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

About 18% work in data processing, hosting, & related services; 9% in computer systems design & related services; the remainder work in a variety of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Help desk analyst; network technician.

**RELATED OCCUPATIONS**

Computer programmers; computer software engineers; computer systems analysts, database administrators, & computer scientists.

**JOB DESCRIPTION**

Plan & design structures, such as private residences, office buildings, theaters, factories, & other structural property.

**EDUCATION**

Bachelor's degree. Licensing through the Kentucky Board of Architects & Certified Interior Designers.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Critical thinking; active listening; complex problem solving; reading comprehension; time management.

**ABILITIES**

Oral expression & comprehension; written expression; speech clarity; near vision; problem sensitivity; information ordering.

**KNOWLEDGE**

Building & construction; design; engineering & technology; mathematics; English language proficiency; administration & management.

**TASKS**

Administer construction contracts. Conduct periodic on-site observation of work during construction to monitor compliance with plans. Consult with client to determine functional & spatial requirements of structure. Direct activities of workers engaged in preparing drawings & specification documents. Integrate engineering element into unified design. Plan layout of project. Prepare contract documents for building contractors. Prepare information regarding design, structure specifications, materials, color, equipment, estimated costs, or construction time. Prepare operating & maintenance manuals, studies, & reports. Prepare scale drawings. Represent client in obtaining bids & awarding construction contracts.

**WORK ACTIVITIES**

Interact with computers; think creatively; organize, plan, & prioritize work; draft, lay out, & specify technical devices, parts, & equipment; make decisions & solve problems.

**ADVANCEMENT OPPORTUNITIES**

In large firms, architects may advance to supervisory or managerial positions. Some architects become partners in established firms, while others set up their own practices. Graduates with degrees in architecture also enter related fields, such as graphic, interior, or industrial design; urban planning; real estate development; civil engineering; & construction management.

**WORKING CONDITIONS**

Usually work in a comfortable environment. Most time spent in offices consulting with clients, developing reports & drawings, & working with other architects & engineers. May visit construction sites to review the progress of projects. Most work 40-hour week, but might have to work nights & weekends to meet deadlines.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
1,450	1,800

Fast growth to 2024. Around 60 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$36.59	\$76,100	\$58,900 – 97,800
Kentucky	\$27.75	\$57,700	\$46,400 – 79,400

**LOCATION**

Over half of all openings in Bluegrass area; one third in Louisville area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Nearly 55% work in professional, scientific, & technical services; 21% are self-employed; others spread across a number of industries.

**RELATED OCCUPATIONS**

Construction managers; landscape architects; civil engineers; urban & regional planners; designers, including interior designers; commercial & industrial designers; graphic designers.

**JOB DESCRIPTION**

Make exact measurements & determine property boundaries. Provide data relevant to the shape, contour, gravitation, location, elevation, or dimension of land or features on or near the earth's surface for engineering, mapmaking, mining, land evaluation, construction, & other purposes.

**EDUCATION**

Bachelor's degree.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities. Licensing through the Kentucky State Board of Licensure for Professional Engineers & Land Surveyors.

**SKILLS**

Mathematics; active listening; critical thinking; reading comprehension; writing.

**ABILITIES**

Problem sensitivity; information ordering; written & oral comprehension; near vision.

**KNOWLEDGE**

Mathematics; engineering & technology; building & construction; design; geography.

**TASKS**

Analyze survey objectives & specifications to prepare survey proposals. Calculate heights, depths, relative positions, property lines, & other characteristics of terrain. Conduct research in surveying & mapping methods using knowledge of techniques of photogrammetric map compilation & electronic data processing. Coordinate findings with the work of others concerned with projects. Determine longitudes & latitudes of important features & boundaries in survey. Determine specifications for photographic equipment to be used for aerial photography. Direct aerial surveys of specified geographical areas. Direct or conduct surveys to establish legal boundaries for properties, based on legal deeds & titles. Establish fixed points for use in making maps. Locate & mark sites selected for geophysical prospecting activities such as efforts to locate petroleum or other mineral products. Prepare & maintain sketches, maps, reports, & legal descriptions of surveys. Obtain information about property boundaries in areas to be surveyed. Survey bodies of water.

**WORK ACTIVITIES**

Obtain, analyze, & process information; interact with computers; make decisions & solve problems.

**ADVANCEMENT OPPORTUNITIES**

Many employers require certification for promotion. The National Society of Professional Surveyors has a voluntary certification program for surveying technicians.

**WORKING CONDITIONS**

Usually work an 8-hour day, 5 days a week. May spend most time outdoors. May work longer hours during summer. Engage in active, sometimes strenuous, work. Might walk distances with heavy equipment. May be exposed to all types of weather. Travel is often necessary.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
950	1,000

Very fast growth to 2024. Around 30 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$27.89	\$58,000	\$43,400 – 77,200
<b>Kentucky</b>	\$23.60	\$49,100	\$39,900 – 61,700

**LOCATION**

One quarter of occupations in each of the Bluegrass & Green River areas; one eighth in each of the Pennyriple, Louisville, Big Sandy, & Kentucky River areas.

**INDUSTRIES OF EMPLOYMENT**

More than 54 percent work in professional, scientific, & technical services; remaining spread throughout a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Geodesist; engineering technician; land examiner.

**RELATED OCCUPATIONS**

Civil engineers; landscape architects; architects, except landscape & naval; urban & regional planners; geoscientists.

**JOB DESCRIPTION**

Perform engineering duties in planning, designing, & overseeing construction & maintenance of building structures, & facilities, such as roads, railroads, airports, bridges, harbors, channels, dams, irrigation projects, pipelines, power plants, water & sewage systems, & waste disposal units.

**EDUCATION**

Bachelor’s degree. Licensing through Kentucky Board of Licensure for Professional Engineers & Land Surveyors.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Mathematics; critical thinking; active listening; reading comprehension; science.

**ABILITIES**

Oral & written expression & comprehension; deductive reasoning; near vision; problem sensitivity.

**KNOWLEDGE**

Engineering & technology; design; mathematics; building & construction; English language proficiency.

**TASKS**

Analyze survey reports, maps, drawings, blueprints, aerial photography, & other topographical or geologic data to plan projects. Design transportation or hydraulic systems & structures using design software & drawing tools. Compute load & grade requirements, water flow rates, & material stress factors to determine design specifications. Inspect project sites to monitor progress & ensure conformance to design specifications & safety or sanitation standards. Direct construction, operations, & maintenance activities at project site. Participate in surveying to lay out installations & establish reference points, grades, & elevations to guide construction. Estimate cost to determine project feasibility. Present public reports. Provide technical advice to industrial & managerial personnel.

**WORK ACTIVITIES**

Make decisions & solve problems; interact with computers; draft, lay out, & specify technical devices, parts, & equipment; document & record information; communicate with supervisors, peers, & subordinates.

**ADVANCEMENT OPPORTUNITIES**

Advancement usually comes in the form of greater responsibility with regard to projects involved, which translates also into increased pay.

**WORKING CONDITIONS**

Work mostly indoors & outdoors, sometimes onsite. Work at least forty hours a week on the whole, but project deadlines may require evening, weekend, or even holiday hours. A fair amount of stress is involved with large construction or design projects. Will likely spend a good portion of time onsite.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

2014	2024
2,900	3,340

Very fast growth to 2024. Around 130 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$39.53	\$82,200	\$64,800 – 104,700
<b>Kentucky</b>	\$34.79	\$72,400	\$55,500 – 92,500

**LOCATION**

Over two fifths of job openings in Bluegrass area; two fifths in Louisville area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Nearly 46% work for professional, scientific, & technical services; 13% for heavy & civil engineering construction; 13% work for local government; remainder work in various industries.

**ALTERNATE OCCUPATIONAL TITLES**

Project managers; structural engineers.

**RELATED OCCUPATIONS**

Architects, except landscape & naval; landscape architects; designers; engineers; engineering technicians; science technicians; & surveyors, cartographers, photogrammetrists, & surveying & mapping technicians.

## JOB DESCRIPTION

Design, plan, or perform engineering duties in the prevention, control, & remediation of environmental health hazards utilizing various engineering disciplines.

## EDUCATION

Bachelor's degree. Licensing through Kentucky Board of Licensure for Professional Engineers & Land Surveyors.

## LOCATION OF TRAINING & EDUCATION

Statewide colleges & universities.

## SKILLS

Reading comprehension; active listening; science; critical thinking; writing.

## ABILITIES

Deductive & inductive reasoning; problem sensitivity; oral expression & comprehension; written comprehension.

## KNOWLEDGE

Public safety & security; mathematics; law & government; engineering & technology; English language proficiency.

## TASKS

Advise corporations & government agencies about environmental policies & standards. Assess the existing or potential environmental impact of land use projects on air, water, & land. Collaborate with other specialists & experts in law & business to address environmental problems. Coordinate & manage environmental protection programs & projects, assigning & evaluating work. Design systems, processes, & equipment for control, management, & remediation of water, air, & soil quality. Develop site-specific health & safety protocols. Inspect facilities & programs to evaluate compliance with regulations. Prepare hazardous waste manifests & land disposal restriction notifications. Provide administrative support for projects. Serve as liaison with federal, state, & local agencies on issues pertaining to solid & hazardous waste program requirements. Work may include waste treatment, site remediation, or pollution control technology.

## WORK ACTIVITIES

Obtain & evaluate information to determine compliance with standards; monitor processes, materials, or surroundings; communicate with supervisors, peers, or subordinates; make decisions & solve problems.

## ADVANCEMENT OPPORTUNITIES

May be assigned more difficult projects with greater independence to develop designs pending experience level. May advance to become technical specialists or supervise a staff or team of engineers. May become engineering managers or enter other managerial or sales jobs.

## WORKING CONDITIONS

Most work in office buildings, laboratories, or industrial plants. Others spend time outdoors at production sites. Some might travel extensively to plants or worksites. Many engineers work a standard 40-hour week. Deadlines or design standards may bring extra pressure to a job, requiring engineers to work longer hours.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

2014	2024
1,470	1,860

Fast growth to 2024. Around 80 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$40.65	\$84,600	\$64,600 – 106,600
Kentucky	\$35.17	\$73,200	\$60,900 – 91,300

## LOCATION

Over half of job openings in Bluegrass area; a quarter in Louisville area; others statewide.

## INDUSTRIES OF EMPLOYMENT

More than 35 percent work for professional, scientific, & technical services; 17 percent for local government; remaining spread throughout a number of industries.

## ALTERNATE OCCUPATIONAL TITLES

Environmentalist; pollution control engineer.

## RELATED OCCUPATIONS

Engineering & natural sciences managers; engineering technicians; science technicians; physical & life scientists; biological scientists; conservation scientists & foresters; chemists & materials scientists, environmental scientists.

**JOB DESCRIPTION**

Design, develop, test, & evaluate integrated systems for managing industrial production processes including human work factors, quality control, inventory control, logistics & material flow, cost analysis, & production coordination.

**EDUCATION**

Bachelor's degree. Licensing through Kentucky Board of Licensure for Professional Engineers & Land Surveyors.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Critical thinking; time management; active listening; complex problem solving; reading comprehension.

**ABILITIES**

Oral expression; deductive reasoning; oral comprehension; mathematical reasoning; problem sensitivity.

**KNOWLEDGE**

Engineering & technology; production & processing; administration & management; mathematics; machines & tools.

**TASKS**

Analyze products to determine standards & establish quality & reliability objectives. Confer with vendors, staff, & management personnel regarding purchases, procedures, product specifications, manufacturing capabilities, & project status. Coordinate quality control objectives to resolve production problems, maximize product reliability, & minimize cost. Develop manufacturing methods, labor utilization standards, & cost analysis systems to promote efficient staff & facility utilization. Estimate production costs. Evaluate precision of production to formulate corrective action plan. Implement methods for disposition of discrepant material & defective or damaged parts. Recommend methods for improving utilization of personnel, material, & utilities. Schedule deliveries.

**WORK ACTIVITIES**

Communicate with peers, supervisors, or subordinates; make decisions & solve problems; interact with computers; obtain & analyze information.

**ADVANCEMENT OPPORTUNITIES**

May be assigned more difficult projects with greater independence to develop designs pending experience level. May advance to become technical specialists or supervise a staff or team of engineers. May become engineering managers or enter other managerial or sales jobs.

**WORKING CONDITIONS**

Most work in office buildings, laboratories, or industrial plants. May spend time outdoors or onsite. May travel extensively to worksites. Many work a standard 40-hour week. Deadlines or design standards may bring extra pressure to a job, requiring engineers to work longer hours.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
5,540	6,390

Average growth to 2024. Around 250 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$40.13	\$83,500	\$66,700 – 103,700
<b>Kentucky</b>	\$37.22	\$77,400	\$64,800 – 93,900

**LOCATION**

Over a quarter of occupations in each of the Louisville & Bluegrass areas; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Over 33% work in transportation equipment manufacturing; others spread throughout a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Efficiency analyst; automation engineer; materials planner.

**RELATED OCCUPATIONS**

Architects; computer & information systems managers; engineering & natural sciences managers; computer programmers; computer software engineers; mathematicians; drafters; engineering technicians; sales engineers; science technicians.

**JOB DESCRIPTION**

Design, develop, test, & evaluate integrated systems for managing industrial production processes including human work factors, quality control, inventory control, logistics & material flow, cost analysis, & production coordination.

**EDUCATION**

Bachelor's degree. Licensing through Kentucky Board of Licensure for Professional Engineers & Land Surveyors.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Mathematics; complex problem solving; critical thinking; science; reading comprehension.

**ABILITIES**

Inductive & deductive reasoning; oral & written comprehension; near vision; problem sensitivity; information ordering; oral expression.

**KNOWLEDGE**

Engineering & technology; mathematics; machines & tools; production & processing; design.

**TASKS**

Assist drafters in developing the design of products using drafting tools or computer-assisted design (CAD) or drafting equipment & software. Conduct research that tests & analyzes the feasibility, design, operation & performance of equipment, components & systems. Design test control apparatus & equipment & develop procedures for testing products. Develop & test models of alternate designs & processing methods to assess feasibility, operating condition effects, possible new applications & necessity of modification. Monitor all aspects of production. Coordinate maintenance & safety procedures. Investigate equipment failures. Oversee installation, operation, & maintenance of machines. Recommend design modifications to machines. Research & analyze customer design proposals, specifications, manuals, & other data to evaluate the feasibility, cost, & maintenance requirements of designs or applications. Specify system components or direct modification of products to ensure conformance with engineering design & performance specifications.

**WORK ACTIVITIES**

Communicate with peers, supervisors, or subordinates; make decisions & solve problems; interact with computers; obtain & analyze information.

**ADVANCEMENT OPPORTUNITIES**

May be assigned more difficult projects depending upon experience level. May advance to become technical specialists or supervise a staff or team. May enter managerial or sales jobs.

**WORKING CONDITIONS**

Most work in office buildings, laboratories, or industrial plants. May spend time outdoors on sites. May travel extensively to worksites. Many work a standard 40-hour week. Deadlines or design standards may require engineers to work longer hours.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
3,030	3,470

Average growth to 2024. Around 140 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$40.19	\$83,600	\$66,500 – 105,100
<b>Kentucky</b>	\$36.98	\$76,900	\$62,000 – 95,300

**LOCATION**

Nearly a sixth of job openings in Louisville area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Around 20% work in professional, scientific, & technical services. Those remaining work in any of a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Stress analyst; tool designer; engine designer.

**RELATED OCCUPATIONS**

Architects; computer & information systems managers; engineering & natural sciences managers; computer programmers; computer software engineers; mathematicians; drafters; engineering technicians; sales engineers; science technicians.

**JOB DESCRIPTION**

Conduct research or perform investigation for the purpose of identifying, abating, or eliminating sources of pollutants or hazards that affect either the environment or the health of the population.

**EDUCATION**

Master’s degree.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Reading comprehension; active listening; science; coordination; active learning.

**ABILITIES**

Inductive & deductive reasoning; speech clarity; oral expression; written comprehension.

**KNOWLEDGE**

Law & government; biology; English language proficiency; public safety & security; customer & personal service.

**TASKS**

Analyze data to interpret correlations between human activities & environmental effects. Analyze data derived from pollution emission measurements, atmospheric monitoring, meteorological & mineralogical information, & soil or water samples. Communicate scientific & technical information through oral briefings, written documents, workshops, conferences, & public hearings. Conduct applied research on topics such as waste control & treatment & pollution control methods. Conduct environmental audits & inspections. Direct studies to obtain technical environmental information about planned projects. Develop methods to minimize the impact of production processes on the environment. Develop programs designed to obtain the most productive use of land. Investigate accidents affecting the environment. Monitor environmental impacts of development activities. Provide technical guidance to environmental programs, industry, & the public.

**WORK ACTIVITIES**

Interact with computers; monitor processes, materials, or surroundings; communicate with supervisors, peers, & subordinates; obtain & evaluate information to determine compliance with standards.

**ADVANCEMENT OPPORTUNITIES**

Might be given more difficult assignments as experience is garnered. May be promoted to management or research position.

**WORKING CONDITIONS**

Entry-level scientists often spend majority of time in the field, while more experienced workers generally spend more time in office or laboratory. Many take field trips that involve physical activity. Might work in all kinds of weather. Travel often is required to meet with prospective clients or investors. Might design & write grant proposals for government entities.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
710	990

Very fast growth to 2024. Around 50 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$32.43	\$67,500	\$50,600 – 90,200
<b>Kentucky</b>	\$22.76	\$47,300	\$40,700 – 59,200

**LOCATION**

Most are in the Bluegrass & Louisville areas, others may be located statewide.

**INDUSTRIES OF EMPLOYMENT**

Over 32% work for professional, scientific, & technical services; 23% for local government; 22% for state government. Others work in a number of other industries.

**ALTERNATE OCCUPATIONAL TITLES**

Pollution control chemist; environmentalist; regulatory analyst.

**RELATED OCCUPATIONS**

Geoscientists; conservation scientists & foresters; science & engineering technicians; atmospheric scientists; biological scientists; physicists; chemists; engineers.

**JOB DESCRIPTION**

Diagnose & treat mental disorders, learning disabilities, & cognitive, behavioral, & emotional problems using individual, child, family, & group therapies. May design & implement behavior modification programs.

**EDUCATION**

Doctoral degree. Licensing through the Kentucky Board of Examiners of Psychology.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Active listening; social perceptiveness; reading comprehension; critical thinking; speaking; active learning; writing; mathematics.

**ABILITIES**

Oral & written expression & comprehension; inductive reasoning; problem sensitivity.

**KNOWLEDGE**

Psychology; therapy & counseling; English language proficiency; business & management principles; customer service; mathematics; education & training.

**TASKS**

Assess an individual's needs, limitations, & potential, using various records. Counsel children & families to help solve conflicts & problems. Collect & analyze data to evaluate the effectiveness of treatments. Collaborate with other professionals to develop strategies. Compile & interpret test results, along with other information, in order to diagnose conditions, & to help assess eligibility for special services. Provide consultation to others. Provide educational programs on topics such as classroom management, teaching strategies, or parenting skills. Utilize treatment methods, such as psychotherapy, hypnosis, behavior modification, stress reduction therapy, psychodrama, & play therapy. Assist clients to gain insight, define goals, & plan action to achieve effective development & adjustment.

**WORK ACTIVITIES**

Obtain & analyze information; make decisions & solve problems; maintain interpersonal relationships; communicate with persons outside organization; maintain up-to-date knowledge; assist & care for others.

**ADVANCEMENT OPPORTUNITIES**

Advance to specialized areas within the occupation.

**WORKING CONDITIONS**

Work indoors. Pressures due to deadlines, tight schedules, & overtime work. Routine may be interrupted frequently. Some travel is required. May work any hours that might accommodate clients. Important to be accurate. Maintain contact with others, especially external customers. May deal with aggressive, unpleasant, or angry people. Responsible for health & safety of others.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
1,520	2,000

Very fast growth to 2024. Around 100 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$33.93	\$70,600	\$53,200 – 92,800
<b>Kentucky</b>	\$29.48	\$61,300	\$52,700 – 74,000

**LOCATION**

About a fifth of all job openings in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Over 31% are self-employed; 29% work in educational services; 25% in 621 ambulatory health care services; the remainder work in a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Therapists; counselors.

**RELATED OCCUPATIONS**

Clergy; counselors; physicians & surgeons; social workers; sociologists; special education teachers.

**JOB DESCRIPTION**

Counsel & advise individuals with alcohol, tobacco, drug, or other problems, such as gambling & eating disorders. May counsel individuals, families, or groups or engage in prevention programs. Exclude "Social Workers", "Psychologists", & "Mental Health Counselors" providing these services.

**EDUCATION**

Master's degree. Licensing through Kentucky Board of Certification for Alcohol & Drug Counselors.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Active listening; speaking; social perceptiveness; service orientation; time management.

**ABILITIES**

Oral comprehension & expression; problem sensitivity; speech clarity; inductive reasoning.

**KNOWLEDGE**

Therapy & counseling; education & training; psychology; customer & personal service; sociology & anthropology.

**TASKS**

Act as liaisons between clients & medical staff. Maintain accurate records & reports regarding the patients' histories & progress, services provided, & other information. Conduct chemical dependency program orientation sessions. Confer with family members or others close to clients to keep them informed of treatment. Coordinate activities with courts, probation officers, community services & other post-treatment agencies. Coordinate counseling efforts with mental health & other professionals. Develop client treatment plans. Implement public education, prevention, & health promotion programs, working in collaboration with organizations, institutions & communities. Follow progress of discharged patients. Modify treatment plans to comply with changes in client status. Implement follow-up programs for clients.

**WORK ACTIVITIES**

Obtain, document, & record information; assist & care for others; communicate with peers, supervisors, & subordinates; maintain interpersonal relationships.

**ADVANCEMENT OPPORTUNITIES**

Prospects for advancement vary by counseling field.

**WORKING CONDITIONS**

Work indoors in comfortable office settings. Work schedule will depend upon type of counseling involved. Must possess high physical & emotional energy to handle an array of problems. Important to be accurate. Maintain contact with others, including external customers. Coordinate & lead others. May deal with physically aggressive people.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
1,730	2,470

Very fast growth to 2024. Around 110 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$19.22	\$40,000	\$31,800 – 51,100
Kentucky	\$16.55	\$34,400	\$28,300 – 42,600

**LOCATION**

Nearly a third of all openings in Louisville area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Nearly 46% for ambulatory health care services; 23% in social assistance; others spread across several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Addiction counselor; case manager; clinician; outreach worker; social worker; treatment counselor.

**RELATED OCCUPATIONS**

Social & human service assistants; social workers; psychologists; physicians & surgeons; registered nurses; members of the clergy; occupational therapists; human resources, training, & labor relations managers & specialists.

**JOB DESCRIPTION**

Counsel individuals & provide group educational & vocational guidance services.

**EDUCATION**

Master’s degree. Licensing through the Education Professional Standards Board.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Active listening; social perceptiveness; speaking; service orientation; reading comprehension.

**ABILITIES**

Oral comprehension & expression; speech clarity; written expression; problem sensitivity; inductive reasoning.

**KNOWLEDGE**

Therapy & counseling; education & training; psychology; customer & personal service; English language proficiency.

**TASKS**

Confer with parents or guardians, teachers, other counselors, & administrators to resolve students' problems. Counsel individuals to help them understand & overcome personal, social, or behavioral problems or educational issues. Identify cases involving domestic abuse or other family problems. Instruct individuals in career development techniques such as job search & application strategies, resume writing, & interview skills. Meet with parents & guardians to discuss their progress. Observe & evaluate students' performance, behavior, social development, & physical health. Perform administrative duties such as hall & cafeteria monitoring, & bus loading & unloading. Plan & promote career & employment-related programs such as work-experience programs. Prepare reports on students & activities as required by administration. Provide disabled students with assistive devices, supportive technology, & assistance accessing facilities such as restrooms. Provide students with information on such topics as college degree programs & admission requirements, financial aid opportunities, trade & technical schools, & apprenticeship programs. Review transcripts to ensure that students meet graduation or college entrance requirements, & write letters of recommendation. Sponsor extracurricular activities.

**WORK ACTIVITIES**

Obtain, document, & record information; assist & care for others; communicate with peers, supervisors, & subordinates; maintain interpersonal relationships; make decisions & solve problems.

**ADVANCEMENT OPPORTUNITIES**

Prospects for advancement vary by counseling field.

**WORKING CONDITIONS**

Work indoors in comfortable office settings. Work schedule will depend upon type of counseling involved. Must possess high physical & emotional energy to handle an array of problems. Coordinate & lead others. May deal with physically aggressive people.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
5,910	7,010

Fast growth to 2024. Around 230 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$25.80	\$53,700	\$41,100 – 69,700
<b>Kentucky</b>	\$26.89	\$55,900	\$39,000 – 69,200

**LOCATION**

About a fifth in of occupations in each of Louisville & Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Nearly 81% work in educational services; others work in any of several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Guidance counselor; teacher advisor; academic advisor; career coach.

**RELATED OCCUPATIONS**

Social & human service assistants; social workers; psychologists; human resources, training, & labor relations managers & specialists; teachers.

**JOB DESCRIPTION**

Diagnose & treat mental & emotional disorders, whether cognitive, affective, or behavioral, within the context of marriage & family systems. Apply psychotherapeutic & family systems theories & techniques in the delivery of professional services to individuals, couples, & families for the purpose of treating such diagnosed nervous & mental disorders. Exclude "Social Workers" & "Psychologists" of all types.

**EDUCATION**

Master's degree. Licensing through Kentucky Board of Licensure for Marriage & Family Therapists.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Active listening; speaking; social perceptiveness; critical thinking; negotiation.

**ABILITIES**

Oral comprehension & expression; problem sensitivity; speech clarity & recognition; inductive reasoning.

**KNOWLEDGE**

Therapy & counseling; sociology & anthropology; psychology; customer & personal service; English language proficiency.

**TASKS**

Help clients identify their feelings & behaviors. Confer with clients in order to develop plans for post-treatment activities. Confer with other counselors in order to analyze individual cases & to coordinate counseling services. Contact doctors, schools, social workers, juvenile counselors, law enforcement personnel & others to gather information in order to make recommendations to courts for the resolution of child custody or visitation disputes. Counsel clients on concerns such as unsatisfactory relationships, divorce & separation, child rearing, home management, & financial difficulties. Determine whether clients should be counseled or referred to other specialists in such fields as medicine, psychiatry & legal aid. Follow up to determine effectiveness of programs. Maintain accurate case files. Advise clients on how to obtain help with legal, financial, & other personal issues. Write evaluations of parents & children for use by courts deciding divorce & custody cases, testifying in court if necessary.

**WORK ACTIVITIES**

Obtain information; assist & care for others; maintain interpersonal relationships; make decisions & solve problems' identify objects, actions, & events.

**ADVANCEMENT OPPORTUNITIES**

Prospects for advancement vary by counseling field.

**WORKING CONDITIONS**

Work indoors in comfortable office settings. Work schedule will depend upon type of counseling involved. Must possess high physical & emotional energy to handle an array of problems. Coordinate & lead others. May face conflict scenarios.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
310	350

Very fast growth to 2024. Around 10 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$23.37	\$48,600	\$37,500 – 64,800
<b>Kentucky</b>	\$17.33	\$36,000	\$27,700– 44,400

**LOCATION**

Statewide.

**INDUSTRIES OF EMPLOYMENT**

Nearly 66 percent work in social assistance; 23 percent in ambulatory health care services; others spread across several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Group counselor; family therapist.

**RELATED OCCUPATIONS**

Social & human service assistants; social workers; psychologists; clergy.

**JOB DESCRIPTION**

Counsel with emphasis on prevention. Work with individuals & groups to promote optimum mental health. May help individuals deal with: addictions & substance abuse; family, parenting, & marital problems; suicide; stress management; problems with self-esteem; & issues associated with aging & mental & emotional health.

**EDUCATION**

Master's degree. Licensing by Kentucky Board of Licensed Professional Counselors.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Judgment & decision making; social perceptiveness; active learning; service orientation; speaking.

**ABILITIES**

Oral & written comprehension; oral expression; problem sensitivity; speech clarity.

**KNOWLEDGE**

Therapy & counseling; education & training; psychology; customer service; English language proficiency.

**TASKS**

Act as client advocates in order to coordinate required services or to resolve emergency problems in crisis situations. Collaborate with other staff members to perform clinical assessments & develop treatment plans. Collect information about clients. Counsel clients & patients to assist in overcoming dependencies, adjusting to life, & making changes. Develop & implement treatment plans based on clinical experience & knowledge. Discuss with individual patients their plans for life after leaving therapy. Encourage clients to express their feelings & discuss what is happening in their lives. Evaluate clients' physical or mental condition based on review of client information. Evaluate the effectiveness of counseling programs & clients' progress in resolving identified problems & moving towards defined objectives.

**WORK ACTIVITIES**

Assist & care for others; obtain information; maintain interpersonal relationships; communicate with persons outside organization; identify objects, actions, & events.

**ADVANCEMENT OPPORTUNITIES**

Prospects for advancement vary by counseling field.

**WORKING CONDITIONS**

Work indoors in comfortable office settings. Work schedule will depend upon type of counseling involved. Must possess high physical & emotional energy to handle an array of problems. Important to be accurate. Maintain contact with others, including external customers. Coordinate & lead others. Deal with physically aggressive people.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
1,830	2,360

Very fast growth to 2024. Around 90 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$20.13	\$41,900	\$32,700 – 54,300
<b>Kentucky</b>	\$17.32	\$36,000	\$30,500 – 44,600

**LOCATION**

Nearly half of all occupations are in Louisville area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Nearly 54% work in ambulatory health care services; 18% in nursing and residential care facilities; others spread across several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Case manager; group counselor; grief counselor; transition specialist; therapist; psychotherapist.

**RELATED OCCUPATIONS**

Social & human service assistants; social workers; psychologists; physicians & surgeons; registered nurses; members of the clergy; occupational therapists; human resources, training, & labor relations managers & specialists.

**JOB DESCRIPTION**

Provide social services & assistance to improve the social & psychological functioning of children & their families & to maximize the family well-being & the academic functioning of children. May assist single parents, arrange adoptions, & find foster homes for abandoned or abused children. In schools, they address such problems as teenage pregnancy, misbehavior, & truancy. May also advise teachers on how to deal with problem children.

**EDUCATION**

Bachelor's degree. Licensed by the Kentucky Board of Social Work.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Speaking; active listening; service orientation; social perceptiveness; monitoring.

**ABILITIES**

Oral expression & comprehension; speech clarity & recognition; problem sensitivity.

**KNOWLEDGE**

Psychology; customer service; therapy & counseling; English language proficiency; sociology & anthropology.

**TASKS**

Interview clients to determine what services are required to meet their needs. Counsel individuals, groups, families, or communities regarding issues including mental health, poverty, unemployment, substance abuse, physical abuse, rehabilitation, social adjustment, child care, or medical care. Maintain case history records. Counsel students who need assistance. Consult with parents, teachers, & other school personnel to determine causes of problems & to implement solutions. Counsel parents with child rearing problems. Review service plans in consultation with clients, & perform follow-ups assessing the quantity & quality of services provided. Collect supplementary information needed to assist client, such as employment records, medical records, or school reports. Address legal issues, assisting with hearings & providing testimony.

**WORK ACTIVITIES**

Communicate with supervisors, peers, & subordinates; make decisions & solve problems; obtain information; communicate with persons outside an organization; maintain interpersonal relationships.

**ADVANCEMENT OPPORTUNITIES**

Advancement to supervisory positions usually requires an advanced degree & related work experience. One may also enter private practice.

**WORKING CONDITIONS**

Usually spend most time in an office or residential facility, but may also travel locally. May face pressure of large caseloads. Usually work a standard 40-hour week, but some work evenings & weekends. Some work part time, particularly in voluntary nonprofit agencies.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
7,250	8,520

Average growth to 2024. Around 300 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$20.36	\$42,300	\$33,800 – 55,400
Kentucky	\$17.40	\$36,200	\$30,000 – 44,400

**LOCATION**

About a fifth of job openings in each of the Bluegrass & Louisville areas; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Over 60% work for state government; the remainder are spread across several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Case manager; case worker; family manager.

**RELATED OCCUPATIONS**

Probation officers & correctional treatment specialists; social & human services assistants; clergy; counselors; psychologists.

**JOB DESCRIPTION**

Provide persons, families, or vulnerable populations with the psychosocial support needed to cope with chronic, acute, or terminal illnesses. Services include advising family care givers, providing patient counseling, & making necessary referrals for other social services.

**EDUCATION**

Bachelor’s degree. Licensed by Kentucky Board of Social Work.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Speaking; active listening; service orientation; social perceptiveness; critical thinking; monitoring; judgment & decision making; reading comprehension; writing; active learning.

**ABILITIES**

Active listening; writing; reading comprehension; social perceptiveness; speaking.

**KNOWLEDGE**

Psychology; customer service; therapy & counseling; English language proficiency; sociology & anthropology.

**TASKS**

Collaborate with other professionals to evaluate patients' medical or physical condition & to assess client needs. Investigate child abuse or neglect cases & take authorized protective action when necessary. Refer patient, client, or family to community resources to assist in recovery from mental or physical illness & to provide access to services such as financial assistance, legal aid, housing, job placement or education. Counsel clients & patients in individual & group sessions to help them overcome dependencies, recover from illness, & adjust to life. Organize support groups or counsel family members to assist them in understanding, dealing with, & supporting the client or patient. Utilize consultation data & social work experience to plan & coordinate client or patient care & rehabilitation. Monitor, evaluate, & record client progress according to measurable goals described in treatment & care plan.

**WORK ACTIVITIES**

Maintain interpersonal relationships; make decisions & solve problems; identify object, actions & events; assist & care for others; obtain information.

**ADVANCEMENT OPPORTUNITIES**

Advancement to supervisor, program manager, assistant director, or executive director of a social service agency or department is possible, but usually requires an advanced degree & related work experience.

**WORKING CONDITIONS**

Work indoors in comfortable office settings. Work a forty-hour workweek. Occasionally work evenings & weekends to meet with clients, attend community meetings, & handle emergencies. Must be comfortable working in physical proximity to others. Potential exposure to illnesses or diseases.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
1,720	2,360

Very fast growth to 2024. Around 110 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$25.18	\$52,400	\$40,700 – 64,100
Kentucky	\$22.05	\$45,900	\$36,200 – 55,600

**LOCATION**

Over a quarter of all job openings in Louisville area; a fifth in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

About 32% work in hospitals; 26% in ambulatory health care services; 21% percent in 623 nursing & residential care facilities; others spread across several industries.

**RELATED OCCUPATIONS**

Probation officers & correctional treatment specialists; social & human services assistants; clergy; counselors; psychologists.

**JOB DESCRIPTION**

Assess & treat individuals with mental, emotional, or substance abuse problems, including abuse of alcohol, tobacco, and/or other drugs. Activities may include individual & group therapy, crisis intervention, case management, client advocacy, prevention, & education.

**EDUCATION**

Master’s degree. Licensed by Kentucky Board of Social Work.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Speaking; active listening; social perceptiveness; critical thinking; writing.

**ABILITIES**

Oral comprehension & expression; speech clarity; inductive reasoning; problem sensitivity.

**KNOWLEDGE**

Psychology; customer service; therapy & counseling; English language proficiency; sociology & anthropology.

**TASKS**

Counsel clients in individual & group sessions to assist them in dealing with substance abuse, mental & physical illness, poverty, unemployment, or physical abuse. Interview clients, review records, & confer with other professionals to evaluate mental or physical condition of client or patient. Collaborate with counselors, physicians, & nurses to plan & coordinate treatment, drawing on social work experience & patient needs. Monitor, evaluate, & record client progress with respect to treatment goals. Refer patient, client, or family to community resources for housing or treatment to assist in recovery from mental or physical illness, following through to ensure service efficacy. Counsel & aid family members to assist them in understanding, dealing with, & supporting the client or patient. Modify treatment plans according to changes in client status. Plan & conduct programs to prevent substance abuse, to combat social problems, or to improve health & counseling services in community. Supervise & direct other workers who provide services to clients or patients.

**WORK ACTIVITIES**

Maintain interpersonal relationships; work directly with the public; communicate with peers, supervisors, & subordinates; assist & care for others; obtain information.

**ADVANCEMENT OPPORTUNITIES**

Advancement to supervisor, program manager, assistant director, or executive director of a social service agency or department is possible, but usually requires an advanced degree & related work experience.

**WORKING CONDITIONS**

Work indoors in comfortable office settings. Work a forty-hour week. Occasionally work evenings & weekends to meet with clients, attend community meetings, & handle emergencies. Time pressure associated with deadlines. Potential exposure to illnesses or diseases. May deal with unpleasant people.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
1,530	2,010

Very fast growth to 2024. Around 90 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$20.28	\$42,200	\$32,900 – 55,700
<b>Kentucky</b>	\$17.00	\$35,400	\$29,200 – 43,900

**LOCATION**

About a fifth of job openings in each of the Bluegrass & Louisville areas; others statewide.

**INDUSTRIES OF EMPLOYMENT**

About 36% work in ambulatory health care services; 17% in hospitals; 14% in social assistance; others spread across several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Counselor; probation officer; case manager; social worker.

**RELATED OCCUPATIONS**

Clergy; counselors; psychologists; probation officers & correctional treatment specialists; social & human services assistants.

**JOB DESCRIPTION**

Assist professionals from a wide variety of fields to provide client services as well as support for families. May assist clients in identifying available benefits & social & community services & help clients obtain them. May assist social workers with developing, organizing, & conducting programs to prevent & resolve problems relevant to substance abuse, human relationships, rehabilitation, or adult daycare.

**EDUCATION**

Moderate-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Speaking; active listening; social perceptiveness; service orientation.

**ABILITIES**

Oral & written comprehension & expression; problem sensitivity.

**KNOWLEDGE**

Psychology; customer service; therapy & counseling; education & training; administrative & clerical procedures.

**TASKS**

Visit individuals in homes or attend group meetings to provide information on agency services, requirements & procedures. Advise clients regarding food stamps, child care, food, money management, sanitation, & housekeeping. Interview individuals & family members to compile information on social, educational, criminal, institutional, or drug history. Provide information on & refer individuals to public or private agencies & community services for assistance. Assist clients with preparation of forms, such as tax or rent forms. Assist in locating housing for displaced individuals. Assist in planning of food budget, utilizing charts & sample budgets. Monitor free, supplementary meal program to ensure cleanliness of facility & that eligibility guidelines are met for persons receiving meals. Meet with youth groups to acquaint them with consequences of delinquent acts. Observe clients' food selections & recommend alternate economical & nutritional food choices.

**WORK ACTIVITIES**

Maintain interpersonal relationships; communicate with persons outside an organization; assist & care for others; obtain, document, & record information; provide consultation to others.

**ADVANCEMENT OPPORTUNITIES**

In general, advancement requires a bachelor's or master's degree in human services, counseling, rehabilitation, social work, or a related field.

**WORKING CONDITIONS**

Work in offices, clinics, hospitals, group homes, shelters, sheltered workshops, & day programs. The work, while satisfying, can be emotionally draining. Time pressure associated with deadlines. Must deal with external customers. Frequent conflict situations. High turnover is expected.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
7,620	9,430

Very fast growth to 2024. Around 330 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$14.82	\$30,800	\$24,400 – 38,900
<b>Kentucky</b>	\$13.01	\$27,100	\$21,000 – 34,100

**LOCATION**

About a fifth of all occupations in Louisville area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

About 30% work in social assistance; another 17% for religious, grantmaking, civic, professional, & similar organizations; 16% in nursing and residential care facilities; 15% for local government; others may work in any of a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Social worker; caseworker; outreach specialist; advocate.

**RELATED OCCUPATIONS**

Social workers; clergy; counselors; childcare workers; occupational therapist assistants & aides; physical therapist assistants & aides; nursing, psychiatric, & home health aides.

**JOB DESCRIPTION**

Conduct religious worship & perform other spiritual functions associated with beliefs & practices of religious faith or denomination. Provide spiritual & moral guidance & assistance to members.

**EDUCATION**

First professional degree.

**LOCATION OF TRAINING & EDUCATION**

Statewide religious institutions & seminaries. Licensed by the Kentucky Board of Certification of Fee-Based Pastoral Counselors.

**SKILLS**

Speaking; active listening; social perceptiveness; service orientation; reading comprehension; writing.

**ABILITIES**

Oral & written comprehension & expression; problem sensitivity; speech clarity.

**KNOWLEDGE**

Know psychology; understand English language; know therapy & counseling; know education & training; know philosophy & theology.

**TASKS**

Administer religious rites or ordinances. Study & interpret religious laws, doctrines, and/or traditions. Counsel individuals & groups concerning their spiritual, emotional, & personal needs. Organize & lead regular religious services. Conduct special ceremonies such as weddings, funerals, & confirmations. Instruct people who seek conversion to a particular faith. Pray & promote spirituality. Prepare & deliver sermons & other talks. Prepare people for participation in religious ceremonies. Read from sacred texts such as the Bible, Torah, or Koran.

**WORK ACTIVITIES**

Maintain interpersonal relationships; work directly with the public; assist & care for others; interpret the meaning of information for others; organize, plan, & prioritize work.

**ADVANCEMENT OPPORTUNITIES**

Advancement depends on the size of the place of worship & the nature of the faith or denomination involved.

**WORKING CONDITIONS**

Work indoors. Work irregular hours & many put in longer than average work days. May be called on short notice to visit the sick, comfort the dying & their families, & provide counseling. Must maintain contact with others, including external customers. Work can be stressful at times.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
1,790	2,140

Average growth to 2024. Around 70 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$21.27	\$44,200	\$31,800 – 59,300
<b>Kentucky</b>	\$23.20	\$48,300	\$40,500 – 58,700

**LOCATION**

Positions in the clergy are located throughout the state.

**INDUSTRIES OF EMPLOYMENT**

Nearly all clergy members work as members of religious organizations, but fewer than 6% work in some other industry.

**ALTERNATE OCCUPATIONAL TITLES**

Minister; priest; pastor; rector; preacher; chaplain.

**RELATED OCCUPATIONS**

Sociologists; counseling psychologists; teachers.

**JOB DESCRIPTION**

Represent clients in criminal & civil litigation & other legal proceedings, draw up legal documents, & manage or advise clients on legal transactions. May specialize in a single area or may practice broadly in many areas of law.

**EDUCATION**

First professional degree. Licensed through the Kentucky Board of Bar Examiners.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Speaking; active listening; active learning; negotiation; persuasion; judgment & decision making; complex problem solving.

**ABILITIES**

Oral & written comprehension & expression; speech clarity.

**KNOWLEDGE**

Law & government; English language proficiency; administration & management; education & training; administrative & clerical procedures.

**TASKS**

Act as agent, trustee, guardian, or executor for businesses or individuals. Advise clients concerning business transactions, claim liability, advisability of prosecuting or defending lawsuits, or legal rights & obligations. Analyze the probable outcomes of cases, using knowledge of legal precedents. Present & summarize cases to judges & juries. Evaluate findings & develop strategies & arguments in preparation for presentation of cases. Examine legal data to determine advisability of defending or prosecuting lawsuit. Gather evidence to formulate defense or to initiate legal actions, by such means as interviewing clients & witnesses to ascertain the facts of a case. Interpret laws, rulings & regulations for individuals & businesses. Negotiate settlements of civil disputes. Prepare & draft legal documents, such as wills, deeds, patent applications, mortgages, leases, & contracts.

**WORK ACTIVITIES**

Maintain current knowledge; communicate with persons outside an organization; interpret the meaning of information for others; identify actions, objects, & events; make decisions & solve problems.

**ADVANCEMENT OPPORTUNITIES**

Newly hired attorneys often start as associates & work with more experienced lawyers or judges. After gaining more responsibilities, some lawyers accept partnership in their firm or start their own practice. Some experienced lawyers are nominated or elected to judgeships.

**WORKING CONDITIONS**

Work in offices, law libraries, & courtrooms. Sometimes meet in clients' homes or places of business, hospitals, or prisons. May travel to attend meetings, gather evidence, & appear before courts, legislative bodies, & other authorities. Often work long hours. May face heavy pressure & frequent conflict situations.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
9,490	10,640

Very fast growth to 2024. Around 250 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$55.69	\$115,800	\$76,300 – 174,300
<b>Kentucky</b>	\$36.00	\$74,900	\$52,900 – 113,500

**LOCATION**

About a quarter of job openings in each of the Bluegrass & Louisville areas; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Nearly 64% work in professional, scientific, & technical services; over 20% work for local government; the remainder work throughout many industries.

**ALTERNATE OCCUPATIONAL TITLES**

Attorney; associate; partner.

**RELATED OCCUPATIONS**

Paralegal & legal assistant; law clerk; title examiner, abstractor, & searcher; arbitrator, mediator, & conciliator; judge, magistrate judge, & magistrate; administrative law judge, adjudicator, & hearing officer.

**JOB DESCRIPTION**

Assist lawyers by researching legal precedent, investigating facts, or preparing legal documents. Conduct research to support a legal proceeding, to formulate a defense, or to initiate legal action.

**EDUCATION**

Associate’s degree.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Speaking; writing; reading comprehension; negotiation; critical thinking.

**ABILITIES**

Oral & written comprehension & expression; deductive reasoning.

**KNOWLEDGE**

Law & government; English language proficiency; administrative & management principles; computers & electronics; administrative & clerical procedures.

**TASKS**

Gather & analyze research data, such as statutes, decisions, & legal articles, codes, & documents. Prepare legal documents, including briefs, pleadings, appeals, wills, contracts, & real estate closing statements. Investigate facts & law of cases to determine causes of action & to prepare cases. Prepare affidavits or other documents, maintain document file, & file pleadings with court clerk. Appraise & inventory real & personal property for estate planning. Arbitrate disputes between parties & assist in real estate closing process. Call upon witnesses to testify at hearing. Answer questions regarding legal issues pertaining to civil service hearings. Direct & coordinate law office activity, including delivery of subpoenas. Keep & monitor legal volumes to ensure that law library is up-to-date.

**WORK ACTIVITIES**

Obtain & analyze information; communicate with peers, supervisors, & subordinates; evaluate information to determine compliance with standards; identify actions, objects, & events.

**ADVANCEMENT OPPORTUNITIES**

Advancement opportunities include promotion to managerial & other law-related positions within the firm. Some paralegals find it easier to move to another firm when seeking increased responsibility or advancement.

**WORKING CONDITIONS**

Work in offices, law libraries, & courtrooms. Usually work at a desk; some travel is possible to gather information. Forty-hour workweek. Important to be accurate & likely consequence for errors.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

2014	2024
3,210	3,650

Fast growth to 2024. Around 110 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$23.47	\$48,800	\$37,900 – 62,600
<b>Kentucky</b>	\$21.73	\$45,200	\$34,800 – 56,600

**LOCATION**

About a third of all job openings in Louisville area; a quarter in Bluegrass area; nearly a quarter in Northern Kentucky; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Nearly 64% work in professional, scientific, and technical services; 20% in state government; others may work in a variety of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Judicial assistant.

**RELATED OCCUPATIONS**

Law clerks; title examiners, abstractors, & searchers; claims adjusters, appraisers, examiners, & investigators; occupational health & safety specialists & technicians.

## JOB DESCRIPTION

Teach courses in health specialties, such as veterinary medicine, dentistry, pharmacy, therapy, laboratory technology, & public health.

## EDUCATION

Doctoral degree. Licensed by the Kentucky Community & Technical College System, Kentucky Board of Emergency Medical Services.

## LOCATION OF TRAINING & EDUCATION

Statewide colleges & universities.

## SKILLS

Speaking; writing; reading comprehension; science; critical thinking; instructing; active learning.

## ABILITIES

Oral & written comprehension & expression; speech clarity.

## KNOWLEDGE

Education & training; English language proficiency; medicine & dentistry; biology; therapy & counseling.

## TASKS

Evaluate & grade students' class work, assignments, & papers. Prepare & deliver lectures to undergraduate and/or graduate students on topics such as public health, stress management, & worksite health promotion. Advise students on academic & vocational curricula, & on career issues. Compile, administer, & grade examinations, or assign this work to others. Compile bibliographies of specialized materials for outside reading assignments. Initiate, facilitate, & moderate classroom discussions. Keep abreast of developments in their field by reading current literature, talking with colleagues, & participating in professional conferences. Maintain regularly scheduled office hours in order to advise & assist students. Maintain student attendance records, grades, & other required records. Plan, evaluate, & revise curricula, course content, & course materials & methods of instruction.

## WORK ACTIVITIES

Train, teach, coach, & develop others; obtain information; communicate with person outside an organization; communicate with supervisors, peers, or subordinates; interpret the meaning for information for others; schedule activities.

## ADVANCEMENT OPPORTUNITIES

Advancement involves a move into administrative & managerial positions, such as departmental chairperson, dean, & president. At four-year institutions, such advancement requires a doctoral degree. At two-year colleges, a doctorate is helpful but not usually required, except for advancement to some top administrative positions.

## WORKING CONDITIONS

Work indoors. Usually have flexible schedules. Must be present for classes & for faculty & committee meetings. Most establish regular office hours for student consultations, usually three to six hours per week. Work may be stressful.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

2014	2024
2,550	3,380

Fast growth to 2024. Around 130 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	n/a	\$90,800	\$59,700 – 149,600
Kentucky	n/a	\$66,600	\$48,600 – 85,900

## LOCATION

Nearly a half in Bluegrass area; another half in Louisville area. Those remaining work statewide.

## INDUSTRIES OF EMPLOYMENT

Nearly all work in educational services.

## ALTERNATE OCCUPATIONAL TITLES

Physical therapy professor; occupational therapy instructor.

## RELATED OCCUPATIONS

Teachers—preschool, kindergarten, elementary, middle, & secondary; education administrators; librarians; counselors; writers & editors; public relations specialists; management analysts.

## JOB DESCRIPTION

Teach vocational or occupational subjects at the postsecondary level (but at less than the baccalaureate) to students who have graduated or left high school. Teaching may take place in public or private schools whose primary business is education or in a school associated with an organization whose primary business is other than education.

## EDUCATION

Doctoral degree; licensing depends upon vocation.

## LOCATION OF TRAINING & EDUCATION

Statewide.

## SKILLS

Speaking; writing; reading comprehension; negotiation; critical thinking.

## ABILITIES

Oral & written comprehension & expression; learning strategies; judgment & decision making; active listening; instructing.

## KNOWLEDGE

Education & training; administrative & management principles; English language proficiency; mathematics; administrative & clerical procedures.

## TASKS

Conduct on-the-job training, classes, or training sessions to teach & demonstrate principles, techniques, procedures, and/or methods of designated subjects. Present lectures & conduct discussions to increase students' knowledge & competence, using visual aids such as graphs, charts, videotapes, & slides. Administer oral, written, or performance tests in order to measure progress. Advise students on course selection, career decisions, & other academic & vocational concerns. Determine training needs of students or workers. Plan course content & methods of instruction. Integrate academic & vocational curricula so that students can obtain a variety of skills. Participate in conferences, seminars, & training sessions to keep abreast of developments in the field; & integrate relevant information into training programs. Prepare outlines of instructional programs & training schedules, & establish course goals.

## WORK ACTIVITIES

Train & teach others; obtain information; maintain up-to-date knowledge; interpret the meaning of information for others; schedule activities.

## ADVANCEMENT OPPORTUNITIES

Advancement involves a move into administrative & managerial positions, such as departmental chairperson, dean, & president. At four-year institutions, such advancement requires a doctoral degree. At two-year colleges, a doctorate is helpful but not usually required, except for advancement to some top administrative positions.

## WORKING CONDITIONS

Work indoors. Usually have flexible schedules. Must be present for classes & for faculty & committee meetings. Most establish regular office hours for student consultations, usually three to six hours per week. Work may be stressful.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

2014	2024
2,870	3,440

Fast growth to 2024. Around 110 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$23.79	\$49,500	\$37,000 – 66,100
Kentucky	\$23.32	\$48,500	\$43,000 – 58,000

## LOCATION

About a fifth of all jobs are in each of the Bluegrass & Louisville areas. Others are located statewide.

## INDUSTRIES OF EMPLOYMENT

More than 95% work for educational services; others spread among a few industries.

## ALTERNATE OCCUPATIONAL TITLES

Instructor; professor.

## RELATED OCCUPATIONS

Teachers—preschool, kindergarten, elementary, middle, & secondary; education administrators; librarians; counselors; writers & editors; public relations specialists; management analysts.

**JOB DESCRIPTION**

All postsecondary teachers not listed separately.

**EDUCATION**

Doctoral degree.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Speaking; instructing; reading comprehension; active listening & learning.

**ABILITIES**

Oral & written comprehension & expression; speech clarity & recognition; problem sensitivity.

**KNOWLEDGE**

Education & training; customer & personal service; English language proficiency; mathematics; computers & electronics.

**TASKS**

As this is a generalized occupational title, tasks may vary. Some may include: Conduct on-the-job training, classes, or training sessions to teach & demonstrate principles, techniques, procedures, and/or methods of designated subjects. Present lectures & conduct discussions to increase students' knowledge & competence, using visual aids such as graphs, charts, videotapes, & slides. Administer oral, written, or performance tests in order to measure progress. Advise students on course selection, career decisions, & other academic & vocational concerns. Determine training needs of students or workers. Plan course content & methods of instruction. Integrate academic & vocational curricula so that students can obtain a variety of skills. Participate in conferences, seminars, & training sessions to keep abreast of developments in the field; & integrate relevant information into training programs. Prepare outlines of instructional programs & training schedules, & establish course goals.

**WORK ACTIVITIES**

Train & teach others; obtain information; make decisions & solve problems; interpret the meaning of information for others; update & use relevant knowledge.

**ADVANCEMENT OPPORTUNITIES**

Advancement involves a move into administrative & managerial positions, such as departmental chairperson, dean, & president. At four-year institutions, such advancement requires a doctoral degree. At two-year colleges, a doctorate is helpful but not usually required, except for advancement to some top administrative positions.

**WORKING CONDITIONS**

Work indoors. Usually have flexible schedules. Must be present for classes & for faculty & committee meetings. Most establish regular office hours for student consultations, usually three to six hours per week. Work may be stressful.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
1,230	1,500

Fast growth to 2024. Around 50 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	n/a	\$63,000	\$43,000 – 90,300
Kentucky	n/a	\$55,800	\$41,500 – 72,700

**LOCATION**

Around a third of all openings in Bluegrass area; a quarter in Louisville area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Nearly all work in educational services.

**ALTERNATE OCCUPATIONAL TITLES**

No alternate occupational titles for this occupation.

**RELATED OCCUPATIONS**

Teachers—preschool, kindergarten, elementary, middle, & secondary; education administrators; librarians; counselors; writers & editors; public relations specialists; management analysts.

**JOB DESCRIPTION**

Instruct children (normally up to 5 years of age) in activities designed to promote social, physical, & intellectual growth needed for primary school in preschool, day care center, or other child development facility. May be required to hold state certification.

**EDUCATION**

Postsecondary vocational award.

**LOCATION OF TRAINING & EDUCATION**

Statewide community colleges & technical schools.

**SKILLS**

Speaking; instructing; active listening; learning strategies; social perceptiveness.

**ABILITIES**

Oral comprehension & expression; speech clarity; problem sensitivity; time sharing.

**KNOWLEDGE**

Education & training; English language proficiency; customer service; psychology; fine arts.

**TASKS**

Establish clear objectives for all lessons & communicate them to children. Organize & lead activities designed to promote physical, mental & social development, such as games, arts & crafts, music, storytelling, & field trips. Plan & conduct activities for a balanced program of instruction, demonstration, & work time that provides students with opportunities to observe, question, & investigate. Teach basic skills such as color, shape, number & letter recognition, personal hygiene, & social skills. Plan & supervise class projects, field trips, visits by guests, or other experiential activities, & guide students in learning from those activities. Adapt teaching methods & instructional materials to meet students' varying needs & interests. Assimilate arriving children to the school environment by greeting them, helping them remove outerwear, & selecting activities of interest to them. Attend to children's basic needs by feeding them, dressing them, & changing their diapers.

**WORK ACTIVITIES**

Train & teach others; think creatively; assist & care for others; maintain interpersonal relationships; organize, plan, & prioritize work.

**ADVANCEMENT OPPORTUNITIES**

May move into positions as school librarians, reading specialists, curriculum specialists, or guidance counselors. Can become administrators or supervisors, although the number of these positions is limited & competition can be intense.

**WORKING CONDITIONS**

Work indoors. Can work at an en-month school year, but part-time schedules are common. Occasionally, teachers must cope with unruly behavior. Accountability standards may increase stress levels. Responsible for the health & safety of others. Spend time walking, running, sitting, & standing.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
3,350	3,820

Very fast growth to 2024. Around 150 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$13.74	\$28,600	\$22,400 – 38,200
Kentucky	\$18.10	\$37,600	\$24,800 – 49,500

**LOCATION**

Over a quarter of all job openings in Bluegrass area; a fifth in Louisville area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Nearly 48% work in social assistance; 31% in educational services; 19% in religious, grantmaking, civic, professional, & similar organizations; others spread among many industries.

**ALTERNATE OCCUPATIONAL TITLES**

Headstart teacher; toddler teacher.

**RELATED OCCUPATIONS**

Teachers—postsecondary; counselors; teacher assistants; education administrators; librarians; child care workers; public relations specialists; social workers; athletes, coaches, umpires, & related workers.

## JOB DESCRIPTION

Teach pupils in public or private schools at the elementary level basic academic, social, & other formative skills. Exclude "Special Education Teachers".

## EDUCATION

Bachelor's degree. Licensed by the Education Professional Standards Board.

## LOCATION OF TRAINING & EDUCATION

Statewide colleges & universities.

## SKILLS

Speaking; instructing; active listening; learning strategies; social perceptiveness; reading comprehension.

## ABILITIES

Oral & written comprehension & expression; speech clarity.

## KNOWLEDGE

Education & training; English language proficiency; customer service; psychology; mathematics; history & archeology.

## TASKS

Establish clear objectives for all lessons, units, & projects, & communicate those objectives to children. Organize & lead activities designed to promote physical, mental & social development. Plan activities for a balanced program of instruction, demonstration, & work time that provides students with opportunities to observe, question, & investigate. Prepare materials & classrooms for class activities. Teach basic skills such as color, shape, number & letter recognition, personal hygiene, & social skills. Adapt teaching methods & instructional materials to meet students' varying needs & interests. Arrange indoor & outdoor space to facilitate creative play, motor-skill activities, & safety. Assimilate arriving children to the school environment by greeting them, helping them remove outerwear, & selecting activities of interest to them. Attend to children's basic needs by feeding & dressing them.

## WORK ACTIVITIES

Train & teach others; think creatively; assist & care for others; maintain interpersonal relationships; interpret the meaning of information for others; develop objects & strategies; maintain up-to-date knowledge.

## ADVANCEMENT OPPORTUNITIES

May move into positions as school librarians, reading specialists, curriculum specialists, or guidance counselors. Can become administrators or supervisors, although the number of these positions is limited & competition can be intense.

## WORKING CONDITIONS

Work indoors. Work a ten-month school year. Occasionally, teachers must cope with unruly behavior. Accountability standards may increase stress levels. Responsible for the health & safety of others. Spend time walking, running, sitting, & standing.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
19,310	22,950

Fast growth to 2024. Around 790 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	n/a	\$54,900	\$43,900 – 69,500
Kentucky	n/a	\$51,900	\$44,000 – 59,400

## LOCATION

Statewide.

## INDUSTRIES OF EMPLOYMENT

Nearly all work in educational services.

## ALTERNATE OCCUPATIONAL TITLES

Elementary teacher; educator.

## RELATED OCCUPATIONS

Teachers—postsecondary; counselors; teacher assistants; education administrators; librarians; child care workers; public relations specialists; social workers; athletes, coaches, umpires, & related workers.

**JOB DESCRIPTION**

Teach students in public or private schools in one or more subjects at the middle, intermediate, or junior high level, which falls between elementary & senior high school as defined by applicable State laws & regulations.

**EDUCATION**

Bachelor's degree. Licensed by the Education Professional Standards Board.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Speaking; instructing; active listening; social perceptiveness; learning strategies; reading comprehension.

**ABILITIES**

Oral & written comprehension & expression; speech clarity.

**KNOWLEDGE**

Education & training; English language proficiency; administrative & clerical procedures; psychology; mathematics; therapy & counseling.

**TASKS**

Establish clear objectives for all lessons, units, & projects, & communicate these objectives to students. Instruct through lectures, discussions, & demonstrations in one or more subjects such as English, mathematics, or social studies. Prepare, administer, & grade tests & assignments in order to evaluate students' progress. Assign lessons & correct homework. Adapt teaching methods & instructional materials to meet students' varying needs & interests. Confer with other staff members to plan & schedule lessons promoting learning, following approved curricula. Confer with parents or guardians, other teachers, counselors, & administrators in order to resolve students' behavioral & academic problems. Enforce all administration policies & rules governing students. Establish & enforce rules for behavior & procedures for maintaining order among the students for whom they are responsible. Guide & counsel students with adjustment and/or academic problems, or special academic interests.

**WORK ACTIVITIES**

Train & teach others; obtain, document & record information; communicate with persons outside organization; interpret the meaning of information for others; maintain up-to-date knowledge.

**ADVANCEMENT OPPORTUNITIES**

May move into positions as school librarians, reading specialists, curriculum specialists, or guidance counselors. Can become administrators or supervisors, although the number of these positions is limited & competition can be intense.

**WORKING CONDITIONS**

Work indoors. Work a ten-month school year. Occasionally, teachers must cope with unruly behavior. Accountability standards may increase stress levels. Must deal with unpleasant or angry people. Coordinate & lead others. Spend time sitting & standing.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
8,500	10,110

Fast growth to 2024. Around 290 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	n/a	\$55,900	\$44,800 – 70,500
Kentucky	n/a	\$52,000	\$44,100 – 60,100

**LOCATION**

Statewide.

**INDUSTRIES OF EMPLOYMENT**

Nearly all work in educational services.

**ALTERNATE OCCUPATIONAL TITLES**

Junior high teachers.

**RELATED OCCUPATIONS**

Teachers—postsecondary; counselors; teacher assistants; education administrators; librarians; child care workers; public relations specialists; social workers; athletes, coaches, umpires, & related workers.

**JOB DESCRIPTION**

Instruct students in secondary public or private schools in one or more subjects at the secondary level, such as English, mathematics, or social studies. May be designated according to subject matter specialty, such as typing instructors, commercial teachers, or English teachers.

**EDUCATION**

Bachelor’s degree. Licensed by the Education Professional Standards Board.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Speaking; instructing; active listening; learning strategies; social perceptiveness; reading comprehension.

**ABILITIES**

Oral & written comprehension & expression; speech clarity.

**KNOWLEDGE**

Education & training; English language proficiency; administrative & clerical procedures; psychology; mathematics; therapy & counseling.

**TASKS**

Establish clear objectives for all lessons, units, & projects, & communicate those objectives to students. Instruct through lectures, discussions, & demonstrations in one or more subjects such as English, mathematics, or social studies. Prepare, administer, & grade tests & assignments to evaluate students’ progress. Assign & grade class work & homework. Adapt teaching methods & instructional materials to meet students’ varying needs & interests. Confer with other staff members to plan & schedule lessons promoting learning, following approved curricula. Confer with parents or guardians, other teachers, counselors, & administrators in order to resolve students’ behavioral & academic problems. Enforce all administration policies & rules governing students. Establish & enforce rules for behavior & procedures for maintaining order among the students for whom they are responsible.

**WORK ACTIVITIES**

Train & teach others; obtain, document & record information; communicate with persons outside organization; interpret the meaning of information for others; maintain up-to-date knowledge.

**ADVANCEMENT OPPORTUNITIES**

May move into positions as school librarians, reading specialists, curriculum specialists, or guidance counselors. Can become administrators or supervisors, although the number of these positions is limited & competition can be intense.

**WORKING CONDITIONS**

Work indoors. Work a ten-month school year. Occasionally, teachers must cope with unruly behavior. Accountability standards may increase stress levels. Must deal with unpleasant or angry people. Coordinate & lead others.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
10,900	12,030

Fast growth to 2024. Around 370 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	n/a	\$57,200	\$45,500 – 73,100
Kentucky	n/a	\$53,000	\$44,500 – 61,200

**LOCATION**

Around a fifth of all openings in Louisville area; a sixth in Bluegrass area; those remaining located statewide.

**INDUSTRIES OF EMPLOYMENT**

Nearly all work in educational services.

**ALTERNATE OCCUPATIONAL TITLES**

High school teachers.

**RELATED OCCUPATIONS**

Teachers—postsecondary; counselors; teacher assistants; education administrators; librarians; child care workers; public relations specialists; social workers; athletes, coaches, umpires, & related workers.

**JOB DESCRIPTION**

Teach elementary & preschool school subjects to educationally & physically handicapped students. Includes teachers who specialize & work with audibly & visually handicapped students & those who teach basic academic & life processes skills to the mentally impaired.

**EDUCATION**

Bachelor's degree. Licensed by the Education Professional Standards Board.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Speaking; instructing; monitoring; active listening; learning strategies; social perceptiveness.

**ABILITIES**

Oral & written comprehension & expression; speech clarity; problem sensitivity.

**KNOWLEDGE**

Education & training; English language proficiency; customer service; psychology; therapy & counseling.

**TASKS**

Develop & implement strategies to meet the needs of students with a variety of handicapping conditions. Instruct students in academic subjects in order to reinforce learning & to meet students' varying needs & interests. Instruct students in daily living skills required for independent maintenance & self-sufficiency. Develop individual educational plans designed to promote students' educational, physical, & social development. Modify the general education curriculum for special-needs students based upon a variety of instructional techniques & technologies. Confer with other staff members to plan & schedule lessons promoting learning, following approved curricula. Work to resolve students' behavioral & academic problems. Coordinate placement of students with special needs into mainstream classes. Establish & enforce rules for behavior & policies & procedures to maintain order among the students for whom they are responsible.

**WORK ACTIVITIES**

Train & teach others; obtain information; communicate with persons outside organization; interpret the meaning of information for others; make decisions & solve problems.

**ADVANCEMENT OPPORTUNITIES**

Can advance to become supervisors or administrators. May earn advanced degrees & become instructors in colleges.

**WORKING CONDITIONS**

Work indoors. Work a traditional ten-month school year. Occasionally, must cope with unruly behavior. Work can be emotionally & physically draining. Must deal with unpleasant or angry people. Coordinate & lead others. Spend time sitting & standing.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
50	60

Very fast growth to 2024. Around 1 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	n/a	\$54,000	\$42,100 – 71,300
Kentucky	n/a	\$46,600	\$40,400 – 55,400

**LOCATION**

About a quarter of job openings in Louisville area; others are statewide.

**INDUSTRIES OF EMPLOYMENT**

Nearly all work in educational services.

**ALTERNATE OCCUPATIONAL TITLES**

Resource teacher; teacher of the handicapped.

**RELATED OCCUPATIONS**

Psychologists, social workers, speech-language pathologists & audiologists, counselors, teacher assistants, occupational therapists, recreational therapists, teachers—preschool, kindergarten, elementary, middle, & secondary.

## JOB DESCRIPTION

Teach middle school subjects to educationally & physically handicapped students. Includes teachers who specialize & work with audibly & visually handicapped students & those who teach basic academic & life processes skills to the mentally impaired.

## EDUCATION

Bachelor's degree. Licensed by the Education Professional Standards Board.

## LOCATION OF TRAINING & EDUCATION

Statewide colleges & universities.

## SKILLS

Speaking; monitoring; instructing; active listening; learning strategies; social perceptiveness.

## ABILITIES

Oral & written comprehension & expression; problem sensitivity; speech clarity.

## KNOWLEDGE

Education & training; English language proficiency; customer service; psychology; therapy & counseling.

## TASKS

Implement strategies to meet the needs of students with a variety of handicapping conditions. Instruct students in daily living skills required for independent maintenance. Instruct students in one or more subjects. Confer with parents, administrators, testing specialists, social workers, & professionals to develop individual educational plans designed to promote student development. Employ special educational strategies & techniques during instruction to improve the development of sensory- & perceptual-motor skills, language, cognition, & memory. Modify the general education curriculum for special-needs students based upon a variety of instructional techniques & instructional technology. Confer with peers & parents in order to resolve students' behavioral & academic problems. Coordinate placement of students with special needs into mainstream classes. Establish & enforce rules for behavior & policies & procedures to maintain order among students.

## WORK ACTIVITIES

Train & teach others; obtain information; communicate with persons outside organization; interpret the meaning of information for others; maintain interpersonal relationships; make decisions & solve problems.

## ADVANCEMENT OPPORTUNITIES

May move into positions as school librarians, reading specialists, curriculum specialists, or guidance counselors. Can become administrators or supervisors, although the number of these positions is limited & competition can be intense.

## WORKING CONDITIONS

Work indoors. Work a ten-month school year. Occasionally, teachers must cope with unruly behavior. Accountability standards may increase stress levels. Must deal with unpleasant or angry people. Coordinate & lead others. Spend time sitting & standing.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
1,720	2,050

Very fast growth to 2024. Around 60 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	n/a	\$57,300	\$45,900 – 72,300
Kentucky	n/a	\$51,000	\$44,100 – 59,100

## LOCATION

Nearly a quarter of occupations are in Louisville area; about a fifth in Bluegrass area; others statewide.

## INDUSTRIES OF EMPLOYMENT

Nearly all work in educational services.

## RELATED OCCUPATIONS

Teachers—postsecondary; counselors; teacher assistants; education administrators; librarians; child care workers; public relations specialists; social workers; athletes, coaches, umpires, & related workers.

**JOB DESCRIPTION**

Teach secondary school subjects to educationally & physically handicapped students. Includes teachers who specialize & work with audibly & visually handicapped students & those who teach basic academic & life processes skills to the mentally impaired.

**EDUCATION**

Bachelor’s degree. Licensed by the Education Professional Standards Board.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Speaking; monitoring; instructing; active listening; learning strategies; social perceptiveness.

**ABILITIES**

Oral & written comprehension & expression; problem sensitivity; speech clarity.

**KNOWLEDGE**

Education & training; English language proficiency; customer service; psychology; therapy & counseling.

**TASKS**

Implement strategies to meet the needs of students with a variety of handicapping conditions. Instruct students in daily living skills required for independent maintenance. Instruct students in one or more subjects, such as English, mathematics, or social studies. Confer with parents, administrators, testing specialists, social workers, & professionals to develop individual educational plans designed to promote student development. Modify the general education curriculum for special-needs students. Confer with other staff members to plan lessons promoting learning, following approved curricula. Confer with peers & parents in order to resolve students’ behavioral & academic problems. Coordinate placement of students with special needs into mainstream classes. Employ special educational strategies & techniques during instruction to improve the development of sensory- & perceptual-motor skills, language, cognition, & memory. Establish & enforce rules for behavior & policies & procedures to maintain order among students.

**WORK ACTIVITIES**

Train & teach others; obtain information; communicate with persons outside organization; interpret the meaning of information for others; maintain interpersonal relationships; make decisions & solve problems.

**ADVANCEMENT OPPORTUNITIES**

May move into positions as school librarians, reading specialists, curriculum specialists, or guidance counselors. Can become administrators or supervisors, although the number of these positions is limited & competition can be intense.

**WORKING CONDITIONS**

Work indoors. Work a ten-month school year. Occasionally, teachers must cope with unruly behavior. Accountability standards may increase stress levels. Must deal with unpleasant or angry people. Coordinate & lead others. Spend time sitting & standing.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
2,240	2,660

Average growth to 2024. Around 80 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	n/a	\$58,500	\$46,800 – 74,900
Kentucky	n/a	\$52,900	\$45,400 – 60,000

**LOCATION**

About a sixth of job openings are in the Louisville area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Nearly all work in educational services.

**ALTERNATE OCCUPATIONAL TITLES**

High school special education teacher.

**RELATED OCCUPATIONS**

Teachers—postsecondary; counselors; teacher assistants; education administrators; librarians; child care workers; public relations specialists; social workers; athletes, coaches, umpires, & related workers.

## JOB DESCRIPTION

Develop instructional material, coordinate educational content, & incorporate current technology in specialized fields that provide guidelines to educators & instructors for developing curricula & conducting courses. Include educational consultants & specialists, & instructional material directors.

## EDUCATION

Master's degree.

## LOCATION OF TRAINING & EDUCATION

Statewide colleges & universities.

## SKILLS

Reading comprehension; active listening; critical thinking; instruction; learning strategies.

## ABILITIES

Oral & written expression; problem sensitivity; inductive reasoning; speech clarity & recognition.

## KNOWLEDGE

Education & training; English language proficiency; customer & personal service; psychology; administration & management.

## TASKS

Advise & teach students. Advise teaching & administrative staff in curriculum development, use of materials & equipment, & implementation of state & federal programs & procedures. Conduct or participate in workshops, committees, & conferences designed to promote the intellectual, social, & physical welfare of students. Develop instructional materials to be used by educators & instructors. Interpret & enforce provisions of state education codes, & rules & regulations of state education boards. Observe work of teaching staff to evaluate performance, & to recommend changes that could strengthen teaching skills. Organize production & design of curriculum materials. Plan & conduct teacher training programs & conferences dealing with new classroom procedures, instructional materials & equipment, & teaching aids. Prepare grant proposals, budgets, & program policies & goals, or assist in their preparation. Prepare or approve manuals, guidelines, & reports on state educational policies & practices for distribution to school districts. Research, evaluate, & prepare recommendations on curricula, instructional methods, & materials for school systems.

## WORK ACTIVITIES

Communicate with peers, supervisors, & subordinates; organize, plan, & prioritize work; establish & maintain interpersonal relationships; obtain information; update & use relevant knowledge.

## ADVANCEMENT OPPORTUNITIES

Depending on experience & educational attainment, instructional coordinators may advance to higher administrative positions in a school system, or to management or executive positions in private industry.

## WORKING CONDITIONS

Often work year round, usually in offices or classrooms. Some travel may be required. May find work stressful because the occupation requires continual accountability. Not uncommon to work long hours.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
2,010	2,640

Very fast growth to 2024. Around 80 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$29.94	\$62,300	\$47,400 – 79,300
Kentucky	\$28.29	\$58,800	\$46,500 – 74,400

## LOCATION

Statewide.

## INDUSTRIES OF EMPLOYMENT

Over 77% work in educational services. Those remaining work in various industries.

## ALTERNATE OCCUPATIONAL TITLES

Curriculum director; course developer; education specialist.

## RELATED OCCUPATIONS

Preschool, kindergarten, elementary, middle, & secondary school teachers; postsecondary teachers; education administrators; counselors; human resources, training, & labor relations managers & specialists.

**JOB DESCRIPTION**

Perform duties that are instructional in nature or deliver direct services to students or parents. Serve in a position for which a teacher or another professional has ultimate responsibility for the design & implementation of educational programs & services.

**EDUCATION**

Short-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Speaking; instructing; active listening; learning strategies; reading comprehension.

**ABILITIES**

Oral & written comprehension & expression; speech clarity.

**KNOWLEDGE**

Education & training; English language proficiency; customer service; psychology; therapy & counseling; administrative & clerical procedures; mathematics.

**TASKS**

Discuss assigned duties with classroom teachers in order to coordinate instructional efforts. Prepare lesson materials. Present subject matter to students under the direction & guidance of teachers, using lectures, discussions, or supervised role-playing methods. Tutor & assist children individually or in small groups in order to help them master assignments & to reinforce learning concepts presented by teachers. Supervise students in classrooms, halls, cafeterias, school yards, & gymnasiums, or on field trips. Conduct demonstrations to teach such skills as sports, dancing, & handicrafts. Distribute teaching materials such as textbooks, workbooks, papers, & pencils to students. Distribute tests & homework assignments, & collect them when they are completed. Enforce administration policies & rules governing students. Grade homework & tests & compute & record results.

**WORK ACTIVITIES**

Train & teach others; obtain information; communicate with persons outside organization; maintain interpersonal relationships; communicate with peers, supervisors, & subordinates.

**ADVANCEMENT OPPORTUNITIES**

Comes primarily with experience or additional education. School districts may provide time away from the job or tuition reimbursement so that teacher assistants can earn their bachelor's degrees & pursue licensed teaching positions.

**WORKING CONDITIONS**

Work indoors. Maintain contact with others, including external customers. Spend time sitting & standing. Four in ten teacher assistants work part time. Among full-time workers, nearly 40% work less than eight hours a day. Occasionally, must cope with unruly behavior. Work can be emotionally & physically draining.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
17,590	20,840

Fast growth to 2024. Around 750 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	n/a	\$24,900	\$19,900 – 31,200
Kentucky	n/a	\$24,900	\$21,600 – 30,500

**LOCATION**

Statewide.

**INDUSTRIES OF EMPLOYMENT**

About 87% work in educational services; remaining work in other industries.

**ALTERNATE OCCUPATIONAL TITLES**

Teacher aides; instructional assistants.

**RELATED OCCUPATIONS**

Preschool, kindergarten, elementary, middle, & secondary school teachers; special education teachers; school librarians; childcare workers; library technicians; library assistants; occupational therapy assistants; aides.

**JOB DESCRIPTION**

All education, training, & library workers not listed separately.

**EDUCATION start here**

Bachelor's degree.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Speaking; instructing; active listening; learning strategies; reading comprehension.

**ABILITIES**

Oral & written comprehension & expression; speech clarity.

**KNOWLEDGE**

Education & training; English language proficiency; customer service; psychology; administrative & clerical procedures; mathematics.

**TASKS**

Tasks will vary depending upon the scope of the occupation. Some may include: Discuss assigned duties with classroom teachers in order to coordinate instructional efforts. Prepare lesson materials. Present subject matter to students under the direction & guidance of teachers, using lectures, discussions, or supervised role-playing methods. Tutor & assist children individually or in small groups in order to help them master assignments & to reinforce learning concepts presented by teachers. Supervise students in classrooms, halls, cafeterias, school yards, & gymnasiums, or on field trips. Conduct demonstrations to teach such skills as sports, dancing, & handicrafts. Distribute teaching materials such as textbooks, workbooks, papers, & pencils to students. Distribute tests & homework assignments, & collect them when they are completed. Enforce administration policies & rules governing students. Grade homework & tests & compute & record results.

**WORK ACTIVITIES**

Train & teach others; obtain information; communicate with persons outside organization; maintain interpersonal relationships; communicate with peers, supervisors, & subordinates.

**ADVANCEMENT OPPORTUNITIES**

Advancement will vary depending on the scope of the occupation. Most comes with experience or additional education.

**WORKING CONDITIONS**

Work indoors. Maintain contact with others, including external customers. Spend time sitting & standing. May work full-time or part-time. May deal with unruly behavior. Work can be emotionally & physically draining.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
5,560	6,760

Very fast growth to 2024. Around 170 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$19.41	\$40,400	\$28,200 – 55,200
<b>Kentucky</b>	\$16.55	\$34,400	\$22,500 – 51,000

**LOCATION**

About a quarter of all occupations in Bluegrass area; another quarter in Louisville area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Over 63% work for educational services; 28% for administrative and support services. The remaining work in a number of other industries.

**RELATED OCCUPATIONS**

Preschool, kindergarten, elementary, middle, & secondary school teachers; special education teachers; school librarians; childcare workers; library technicians; library assistants; occupational therapy assistants; aides.

## JOB DESCRIPTION

Design or create graphics to meet specific commercial or promotional needs, such as packaging, displays, or logos. May use a variety of mediums to achieve artistic or decorative effects.

## EDUCATION

Bachelor's degree.

## LOCATION OF TRAINING & EDUCATION

Statewide colleges & universities.

## SKILLS

Time management; coordination; active listening; active learning; judgment & decision making.

## ABILITIES

Oral comprehension; speech clarity & recognition; visualization; near vision; fluency of ideas; originality.

## KNOWLEDGE

Computers & electronics; English language proficiency; communications & media; design; customer service.

## TASKS

Create designs, concepts, & sample layouts based on knowledge of layout principles & aesthetic design concepts. Determine size & arrangement of illustrative material & copy, & select style & size of type. Use computer software to generate new images. Mark up, paste, & assemble final layouts to prepare layouts for printer. Draw & print charts, graphs, illustrations, & other artwork, using computer. Review final layouts & suggest improvements as needed. Confer with clients to discuss & determine layout design. Develop graphics & layouts for product illustrations, company logos, & Internet websites. Key information into computer equipment to create layouts for client or supervisor. Prepare illustrations or rough sketches of material, discussing them with clients and/or supervisors & making necessary changes.

## WORK ACTIVITIES

Think creatively; interact with computers; obtain information; make decisions & solve problems; maintain up-to-date knowledge.

## ADVANCEMENT OPPORTUNITIES

Experienced designers in large firms may advance to chief designer, design department head, or other supervisory positions. May also become teachers at colleges & universities.

## WORKING CONDITIONS

Work indoors. Must maintain contact with others, often in a group or team setting. Spend time sitting & standing. Time pressure is common. Mostly are employed by manufacturing establishments, large corporations, or design firms, but some freelance or work for smaller corporations. May adjust workday to suit clients' schedules & deadlines.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

2014	2024
3,410	3,810

Average growth to 2024. Around 120 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$22.55	\$46,900	\$35,200 – 62,600
Kentucky	\$18.02	\$37,500	\$28,400 – 49,000

## LOCATION

More than half work in Louisville area; nearly a quarter in Bluegrass area; others statewide.

## INDUSTRIES OF EMPLOYMENT

Approximately 27% are self-employed; 21% work in professional, scientific, and technical services. The rest are spread among various industries.

## ALTERNATE OCCUPATIONAL TITLES

Layout artist; designers.

## RELATED OCCUPATIONS

Artists & related workers; engineers; landscape architects; architects, except landscape & naval; photographers.

**JOB DESCRIPTION**

Coach groups or individuals in the fundamentals of sports. Demonstrate techniques & methods of participation. May evaluate athletes' strengths & weaknesses as possible recruits or to improve the athletes' technique to prepare them for competition.

**EDUCATION**

Long-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Instructing; negotiation; management of personnel resource; judgment & decision making; speaking.

**ABILITIES**

Oral expression; far vision; visualization; problem sensitivity; deductive reasoning; speech clarity.

**KNOWLEDGE**

Education & training; English language proficiency; sales & marketing; business & management principles; psychology.

**TASKS**

Adjust coaching techniques based on the strengths & weaknesses of athletes. Analyze the strengths & weaknesses of opposing teams in order to develop game strategies. Evaluate athletes' skills in order to determine their fitness & potential in a particular area of athletics. Explain & demonstrate the use of sports & training equipment. Enforce safety rules & regulations. File scouting reports that detail player assessments, provide recommendations on athlete recruitment, & identify locations & individuals to be targeted for future recruitment efforts. Identify & recruit potential athletes. Instruct individuals or groups in sports rules, game strategies, & performance principles such as specific ways of moving the body, hands, and/or feet in order to achieve desired results. Keep abreast of changing rules, techniques, technologies, & philosophies relevant to a particular sport.

**WORK ACTIVITIES**

Coach & develop others; obtain information; make decisions & solve problems; communicate with supervisors, peers, & subordinates; judge the qualities of things, service, or people.

**ADVANCEMENT OPPORTUNITIES**

May begin as assistants & work towards a head position. May also move to larger institutions, with greater responsibility.

**WORKING CONDITIONS**

Work both indoors & outdoors. Spend time sitting, standing, walking, & running. Coordinate & lead others. Responsible for health & safety of others. Frequency of conflict situations. Often work irregular hours. May coach more than one sport. Must travel to various events. May be exposed to various weather conditions.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

2014	2024
2,830	3,310

Very fast growth to 2024. Around 140 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	n/a	\$31,000	\$20,100 – 48,600
Kentucky	n/a	\$26,200	\$19,100 – 44,400

**LOCATION**

About half of job openings in Louisville area; two fifths in Bluegrass area; others located statewide.

**INDUSTRIES OF EMPLOYMENT**

Around 62% work for educational services; 17% are self-employed; 14% work for amusement, gambling, and recreation industries. The rest are spread throughout various industries.

**ALTERNATE OCCUPATIONAL TITLES**

Recruiting coordinator.

**RELATED OCCUPATIONS**

Dietitians & nutritionists; physical therapists; recreation & fitness workers; recreational therapists; teachers—preschool, kindergarten, elementary, middle, & secondary.

**JOB DESCRIPTION**

Engage in promoting or creating good will for individuals, groups, or organizations by writing or selecting favorable publicity material & releasing it through various communications media.

**EDUCATION**

Bachelor's degree.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Speaking; writing; persuasion; critical thinking; active listening; complex problem solving; coordination; social perceptiveness.

**ABILITIES**

Oral & written expression & comprehension; speech clarity; fluency of ideas.

**KNOWLEDGE**

Sales & marketing; mathematics; telecommunications; communications & media; psychology.

**TASKS**

Arrange public appearances, lectures, contests, or exhibits for clients. Consult with advertising agencies or staff to arrange promotional campaigns in all types of media for products, organizations, or individuals. Establish & maintain cooperative relationships with representatives of community, consumer, employee, & public interest groups. Plan & direct development & communication of informational programs. Prepare or edit organizational publications for internal & external audiences. Respond to requests for information from the media or designate another appropriate spokesperson or information source. Study the objectives, promotional policies & needs of organizations to develop public relations strategies that will influence public opinion or promote ideas, products & services. Confer with production & support personnel to produce or coordinate production of advertisements & promotions. Deliver speeches to further public relations objectives.

**WORK ACTIVITIES**

Communicate with persons outside an organization; judge the qualities of services or people; obtain information; make decisions & solve problems; organize, plan, & prioritize work.

**ADVANCEMENT OPPORTUNITIES**

May come as public relations specialists show that they can handle more demanding assignments. Some experienced public relations specialists start their own consulting firms.

**WORKING CONDITIONS**

Work a 35- to 40-hour week, but unpaid overtime is common. Occasionally must be on call. Work schedules can be irregular & frequently interrupted. Schedules often have to be rearranged. Maintain contact with others, particularly external customers. Coordinate & lead others.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
2,840	3,320

Very fast growth to 2024. Around 80 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$27.29	\$56,800	\$41,500 – 78,300
<b>Kentucky</b>	\$22.67	\$47,200	\$35,400 – 60,700

**LOCATION**

Nearly one quarter of occupations in Bluegrass area; nearly a sixth in Louisville area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Over 26% work for religious, grantmaking, civic, professional, & similar organizations; 15% work educational services; others spread throughout various industries.

**RELATED OCCUPATIONS**

Advertising, marketing, promotions, public relations, & sales managers; demonstrators, product promoters, & models; news analysts, reporters, & correspondents; lawyers; market & survey researchers; sales representatives, wholesale & manufacturing; police & detectives.

## JOB DESCRIPTION

Photograph persons, subjects, merchandise, or other commercial products. May develop negatives & produce finished prints. Include scientific photographers, aerial photographers, & photojournalists.

## EDUCATION

Long-term on-the-job training.

## LOCATION OF TRAINING & EDUCATION

See *Industries of Employment*.

## SKILLS

Equipment selection; operation & control; science; operations analysis; complex problem solving; monitoring.

## ABILITIES

Near & far vision; visual color discrimination; information ordering; arm-hand steadiness; visualization.

## KNOWLEDGE

Chemistry; physics; medicine & dentistry; communications & media; fine arts; biology.

## TASKS

Frame subject matter & background in lens to capture desired image. Select & assemble equipment & required background properties, according to subject, materials, & conditions. Direct activities of workers assisting in setting up photographic sets. Estimate or measure light level, distance, & number of exposures needed, using measuring devices & formulas. Photograph variety of subject material to illustrate or record scientific or medical data or phenomena, related to an area of interest. Sight & focus camera to take picture of subject material to illustrate or record scientific or medical data or phenomena. Plan methods & procedures for photographing subject material & set-up of required equipment. Engage in research to develop new photographic procedure, materials, & scientific data. Set up, mount, or install photographic equipment & cameras. Remove exposed film & develops film, using chemicals, touch up tools, & equipment.

## WORK ACTIVITIES

Handle & move objects; identify objects, actions, & events; organize, plan, & prioritize work; think creatively; monitor processes, materials, or surroundings; obtain information.

## ADVANCEMENT OPPORTUNITIES

With experience, may advance to photography or picture editor positions. May also teach at technical schools, film schools, or universities.

## WORKING CONDITIONS

Work indoors or outdoors, depending on subject matter. Most often a standard 5-day, 40-hour workweek, but hours will fluctuate depending upon the type of work. Income will often fluctuate with the variable hours. Must have knowledge of copyright infringement laws.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
1,800	1,920

Fast growth to 2024. Around 60 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$15.24	\$31,700	\$22,600 – 48,600
Kentucky	\$13.84	\$28,800	\$21,100 – 42,300

## LOCATION

One quarter of occupations in Bluegrass area; others statewide.

## INDUSTRIES OF EMPLOYMENT

Over 70% work in educational services; around 24% work in local government; others spread among a number of industries.

## RELATED OCCUPATIONS

Architects, except landscape & naval; artists & related workers; designers; news analysts, reporters, & correspondents; television, video, & motion picture camera operators & editors.

**JOB DESCRIPTION**

Adjust spinal column & other articulations of the body to correct abnormalities of the human body believed to be caused by interference with the nervous system. Examine patient to determine nature & extent of disorder. Manipulate spine or other involved area. May utilize supplementary measures, such as exercise, rest, water, light, heat, & nutritional therapy.

**EDUCATION**

First professional degree. Licensing through Kentucky Board of Chiropractic Examiners.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Active listening; reading comprehension; speaking; critical thinking; service orientation.

**ABILITIES**

Oral expression & comprehension; problem sensitivity; speech clarity; inductive reasoning.

**KNOWLEDGE**

Medicine & dentistry; customer & personal service; English language proficiency; therapy & counseling; biology.

**TASKS**

Advise patients about recommended courses of treatment. Analyze x-rays to locate the sources of patients' difficulties & to rule out fractures or diseases as sources of problems. Consult with & refer patients to appropriate health practitioners when necessary. Counsel patients about nutrition, exercise, sleeping habits, stress management, & other matters. Diagnose health problems by reviewing patients' health & medical histories, questioning, observing & examining patients, & interpreting x-rays. Evaluate the functioning of the neuromusculoskeletal system & the spine using systems of chiropractic diagnosis. Maintain accurate case histories of patients. Perform a series of manual adjustments to the spine, or other articulations of the body, to correct the musculoskeletal system. Suggest & apply the use of supports.

**WORK ACTIVITIES**

Assist & care for others; work directly with the public; obtain, document, & record information; make decisions & solve problems.

**ADVANCEMENT OPPORTUNITIES**

May set up a new practice, purchase an established one, or enter into partnership with an established practitioner.

**WORKING CONDITIONS**

Work in clean, comfortable offices. Average workweek is about 40 hours, though longer hours are not uncommon. May work evenings or weekends to accommodate patients. Sometimes on feet for long periods.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
580	690

Very fast growth to 2024. Around 20 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$30.98	\$64,400	\$45,300 – 94,000
<b>Kentucky</b>	\$26.91	\$56,000	\$43,700 – 72,700

**LOCATION**

Statewide.

**INDUSTRIES OF EMPLOYMENT**

Over 52% work in ambulatory health care services; 47% are self-employed; those remaining work in other industries.

**ALTERNATE OCCUPATIONAL TITLES**

No alternate titles for this occupation.

**RELATED OCCUPATIONS**

Athletic trainers; massage therapists; occupational therapists; physical therapists; physicians & surgeons; podiatrists; veterinarians.

**JOB DESCRIPTION**

Plan & conduct food service or nutritional programs to assist in the promotion of health & control of disease. May supervise activities of a department providing quantity food services, counsel individuals, or conduct nutritional research.

**EDUCATION**

Bachelor's degree. Licensing through Kentucky Board of Licensure & Certification for Dietitians & Nutritionists.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Active listening; reading comprehension; speaking; instructing; writing.

**ABILITIES**

Oral expression & comprehension; written comprehension; deductive & inductive reasoning; problem sensitivity; speech clarity.

**KNOWLEDGE**

Education & training; customer & personal service; English language proficiency; medicine & dentistry; psychology.

**TASKS**

Assess nutritional needs, diet restrictions & current health plans to develop & implement dietary-care plans & provide nutritional counseling. Consult with physicians & health care personnel to determine nutritional needs & diet restrictions of patient or client. Coordinate recipe development & standardization & develop new menus for independent food service operations. Counsel individuals & groups on basic rules of good nutrition, healthy eating habits, & nutrition monitoring to improve their quality of life. Develop curriculum & prepare manuals, visual aids, course outlines, & other materials used in teaching. Inspect meals served for conformance to prescribed diets & standards of palatability & appearance. Plan & conduct training programs in dietetics, nutrition, & institutional management & administration for medical students, health-care personnel & the general public. Plan & prepare grant proposals to request program funding. Plan, conduct, & evaluate dietary, nutritional, & epidemiological research. Prepare & administer budgets for food, equipment & supplies. Purchase food in accordance with health & safety codes. Test new food products & equipment. Write research reports & other publications to document & communicate research findings.

**WORK ACTIVITIES**

Interpret the meaning of information for others; obtain, document, & record information; update & use relevant knowledge.

**ADVANCEMENT OPPORTUNITIES**

May move to management positions or become sales representatives.

**WORKING CONDITIONS**

Most work a 40-hour week though some work weekends. Usually work in clean, well-lighted, & well-ventilated areas. However, some dietitians work in warm, congested kitchens. On feet for much of the workday.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

2014	2024
1,080	1,410

Fast growth to 2024. Around 40 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$27.84	\$57,900	\$46,200 – 70,600
Kentucky	\$25.89	\$53,900	\$45,400 – 60,900

**LOCATION**

Almost one third work in Louisville area; one fifth in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Over 23% work in personal and laundry services; 21% work for hospitals; 19% for ambulatory health care services; others spread throughout a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Food adviser; menu planner; dietist.

**RELATED OCCUPATIONS**

Food services managers; registered nurses.

**JOB DESCRIPTION**

Diagnose, manage, & treat conditions & diseases of the human eye & visual system. Examine eyes & visual system, diagnose problems or impairments, prescribe corrective lenses, & provide treatment. May prescribe therapeutic drugs to treat specific eye conditions.

**EDUCATION**

First professional degree. Licensing through Kentucky Board of Optometric Examiners.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Active listening; reading comprehension; critical thinking; judgment & decision making; science.

**ABILITIES**

Oral expression & comprehension; arm-hand steadiness; near vision; problem sensitivity.

**KNOWLEDGE**

Medicine & dentistry; customer & personal service; English language proficiency; biology; mathematics.

**TASKS**

Analyze test results & develop a treatment plan. Consult with & refer patients to ophthalmologist or other health care practitioner if additional medical treatment is determined necessary. Educate & counsel patients on contact lens care, visual hygiene, lighting arrangements & safety factors. Examine eyes, using observation, instruments & pharmaceutical agents, to determine visual acuity & perception, focus & coordination & to diagnose diseases & other abnormalities such as glaucoma or color blindness. Prescribe medications to treat eye diseases if state laws permit. Prescribe therapeutic procedures to correct or conserve vision. Prescribe, supply, fit & adjust eyeglasses, contact lenses & other vision aids. Provide patients undergoing eye surgeries, such as cataract & laser vision correction, with pre- & post-operative care. Provide vision therapy & low vision rehabilitation. Remove foreign bodies from the eye.

**WORK ACTIVITIES**

Make decisions & solve problems; work directly with the public; update & use relevant knowledge; process information; maintain interpersonal relationships.

**ADVANCEMENT OPPORTUNITIES**

Optometrists wishing to teach or conduct research may study for a master’s or Ph.D. degree in visual science, physiological optics, neurophysiology, public health, health administration, health information & communication, or health education.

**WORKING CONDITIONS**

Work in clean, well lighted, & comfortable places. Most work about 40 hours a week. Many work weekends & evenings to suit the needs of patients. Emergency calls, once uncommon, have increased with the passage of therapeutic-drug laws expanding optometrists’ ability to prescribe medications.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
1,090	1,470

Very fast growth to 2024. Around 40 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$49.95	\$103,900	\$77,300 – 134,800
<b>Kentucky</b>	\$45.75	\$95,200	\$75,800 – 114,200

**LOCATION**

Statewide.

**INDUSTRIES OF EMPLOYMENT**

Almost 66% work in ambulatory health care services; 19% are self-employed; others occur in a number of industries.

**RELATED OCCUPATIONS**

Chiropractors; dentists; physicians & surgeons; psychologists; podiatrists; veterinarians.

**JOB DESCRIPTION**

Compound & dispense medications following prescriptions issued by physicians, dentists, or other authorized medical practitioners.

**EDUCATION**

First professional degree. Licensing through Kentucky Board of Pharmacy.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Reading comprehension; science; mathematics; active listening; critical thinking; judgment & decision making; writing.

**ABILITIES**

Oral & written expression & comprehension; information ordering; mathematical reasoning.

**KNOWLEDGE**

Chemistry; medicine & dentistry; computers & electronics; administration & management principles; biology; English language proficiency.

**TASKS**

Assay radiopharmaceuticals, verify rates of disintegration, & calculate the volume required to produce the desired results, to ensure proper dosages. Assess the identity, strength & purity of medications. Compound & dispense medications as prescribed by doctors & dentists. Prepare sterile solutions & infusions for use in surgical procedures, emergency rooms, or patients' homes. Review prescriptions to assure accuracy, to ascertain the needed ingredients, & to evaluate their suitability. Advise customers on the selection of medication brands, medical equipment & health-care supplies. Analyze prescribing trends to monitor patient compliance & to prevent excessive usage or harmful interactions. Collaborate with other health care professionals to plan, monitor, review, & evaluate the quality & effectiveness of drugs & drug regimens, providing advice on drug applications & characteristics.

**WORK ACTIVITIES**

Obtain information; identify objects, actions, & events; communicate with peers, supervisors, & subordinates; maintain up-to-date knowledge; evaluate information to determine compliance with standards.

**ADVANCEMENT OPPORTUNITIES**

May be promoted to pharmacy supervisor or manager at the store level, then to manager at the district or regional level, & later to an executive position. Hospital pharmacists may advance to supervisory or administrative positions.

**WORKING CONDITIONS**

Work in clean, well-lighted, & well-ventilated areas. Wear gloves & masks at times. May travel to nursing homes or other facilities. About 16% of pharmacists worked part time in 2006. Most full-time salaried pharmacists worked about 40 hours a week. Some may work more. Responsible for the health & safety of others. Accuracy is imperative.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
5,250	6,310

Very fast growth to 2024. Around 230 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$58.41	\$121,500	\$107,800 – 138,700
<b>Kentucky</b>	\$59.29	\$123,300	\$110,000 – 140,100

**LOCATION**

About one quarter of job openings in Bluegrass area; a fifth in Louisville area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

About 46% work in health & personal care stores; 20% in hospitals; 13% in general merchandise stores; others spread throughout a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Drug store clerk or attendant.

**RELATED OCCUPATIONS**

Pharmacy technicians & pharmacy aides; biological scientists, medical scientists, & chemists; materials scientists; physicians & surgeons.

**JOB DESCRIPTION**

All physicians & surgeons not listed separately.

**EDUCATION**

First professional degree. Licensed by the Kentucky Board of Medical Licensure.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Coordination; judgment & decision making; active listening; active learning; speaking; reading comprehension; critical thinking.

**ABILITIES**

Near vision; finger dexterity; inductive & deductive reasoning; problem sensitivity; oral expression & comprehension; speech clarity.

**KNOWLEDGE**

Medicine & dentistry; customer & personal service; biology; chemistry; psychology; therapy & counseling; English language proficiency.

**TASKS**

Operate on patients. Direct & coordinate activities of medical staff. Follow established surgical techniques during operation. Administer or order diagnostic tests, such as x-ray, electrocardiogram, & laboratory tests. Examine patients to obtain information about their physical condition. Instruct & counsel patients about prescribed therapeutic regimens, normal growth & development, family planning, emotional problems of daily living, & health maintenance. Interpret diagnostic test results for deviations from normal. Make tentative diagnoses & decisions about management & treatment of patients. Maintain patient medical data. Order medical & laboratory supplies & equipment. Perform therapeutic procedures, such as injections, immunizations, suturing & wound care, & infection management. Prescribe therapy or medication with physician approval. Provide physicians with assistance during surgery or complicated medical procedures. Supervise & coordinate activities of technicians & technical assistants.

**WORK ACTIVITIES**

Assist & care for others; make decisions & solve problems; work directly with the public; obtain information; communicate with peers, supervisors, & subordinates.

**ADVANCEMENT OPPORTUNITIES**

Some advance by gaining expertise in specialties & subspecialties & by developing a reputation for excellence among their peers & patients. May also start one's own practice.

**WORKING CONDITIONS**

Usually work in a comfortable, well-lighted environment. Many work in small offices or private clinics. Those in surgery may stand for long periods. Schedule varies with practice setting. May work irregular & long hours. May be on call.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

2014	2024
5,440	6,700

Very fast growth to 2024. Around 270 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$90.00+	\$187,200+	\$116,500 – 187,200+
Kentucky	\$88.10	\$183,200	\$60,700 – 187,200+

**LOCATION**

One third of occupations are in Louisville area; a quarter in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

About 50% work in ambulatory health care services 15% work in educational services; 14% work for federal government; others occur in a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Nurse practitioner; surgical assistant.

**RELATED OCCUPATIONS**

Audiologists; occupational therapists; physical therapists; registered nurses; speech-language pathologists.

**JOB DESCRIPTION**

Provide healthcare services typically performed by a physician, under the supervision of a physician. Conduct complete physicals, provide treatment, & counsel patients. May prescribe medication. Exclude "Emergency Medical Technicians & Paramedics", "Medical Assistants", & "Registered Nurses".

**EDUCATION**

Bachelor's degree. Licensed by Kentucky Board of Medical Licensure.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Active listening; active learning; speaking; reading comprehension; critical thinking.

**ABILITIES**

Inductive & deductive reasoning; problem sensitivity; oral expression & comprehension; speech clarity.

**KNOWLEDGE**

Medicine & dentistry; customer & personal service; biology; psychology; therapy & counseling.

**TASKS**

Administer or order diagnostic tests, such as x-ray, electrocardiogram, & laboratory tests. Examine patients to obtain information about their physical condition. Instruct & counsel patients about prescribed therapeutic regimens, normal growth & development, family planning, emotional problems of daily living, & health maintenance. Interpret diagnostic test results for deviations from normal. Make tentative diagnoses & decisions about management & treatment of patients. Maintain patient medical data. Order medical & laboratory supplies & equipment. Perform therapeutic procedures, such as injections, immunizations, suturing & wound care, & infection management. Prescribe therapy or medication with physician approval. Provide physicians with assistance during surgery or complicated medical procedures. Supervise & coordinate activities of technicians & technical assistants. Visit & observe patients on hospital rounds or house calls.

**WORK ACTIVITIES**

Assist & care for others; make decisions & solve problems; work directly with the public; obtain information; communicate with peers, supervisors, & subordinates.

**ADVANCEMENT OPPORTUNITIES**

May advance to added responsibilities & higher earnings with knowledge & experience. By the nature of the profession, clinically practicing PAs are always supervised by physicians.

**WORKING CONDITIONS**

Usually work in a comfortable, well-lighted environment. Those in surgery may stand for long periods. Schedule varies with practice setting. May work weekends, nights, or early mornings. May also be on call.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
870	1,210

Very fast growth to 2024. Around 50 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$47.20	\$98,200	\$83,500 – 118,200
Kentucky	\$45.56	\$94,800	\$85,600 – 110,200

**LOCATION**

About one third of occupations are in Bluegrass area; a sixth in Louisville area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Nearly 74% work in ambulatory health care services; others occur in a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Nurse practitioner; surgical assistant.

**RELATED OCCUPATIONS**

Audiologists; occupational therapists; physical therapists; registered nurses; speech-language pathologists.

**JOB DESCRIPTION**

Assess patient health problems & needs, develop & implement nursing care plans, & maintain medical records. Administer nursing care to patients. May advise patients on health maintenance & disease prevention or provide case management. Includes advance practice nurses such as: nurse practitioners, clinical nurse specialists, certified nurse midwives, & certified registered nurse anesthetists.

**EDUCATION**

Associate’s degree. Licensing through Kentucky Board of Nursing.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Reading comprehension; science; critical thinking; active listening.

**ABILITIES**

Problem sensitivity; oral & written comprehension; written expression; information ordering; near vision.

**KNOWLEDGE**

Chemistry; psychology; medicine & dentistry; therapy & counseling; biology.

**TASKS**

Consult & coordinate with health care team members to plan patient care plans. Maintain accurate reports & records. Modify patient treatment plans as indicated by patients' responses & conditions. Monitor all aspects of patient care, including diet & physical activity. Monitor & record changes in patients' conditions. Observe nurses & visit patients to ensure that proper nursing care is provided. Prepare patients for, & assist with, examinations & treatments. Prepare rooms, sterile instruments, equipment & supplies, & ensure that stock of supplies is maintained. Provide health care, first aid, immunizations & assistance in convalescence & rehabilitation in locations such as schools, hospitals, & industry. Record patients' medical information & vital signs.

**WORK ACTIVITIES**

Obtain, document, & record information; monitor process, materials, or surroundings; communicate with peers, supervisors, & subordinates; maintain up-to-date knowledge; assist & care for others.

**ADVANCEMENT OPPORTUNITIES**

Experience & good performance can lead to promotion. Can move into a nursing specialty such as clinical nurse specialist, nurse practitioner, certified nurse midwife, or certified registered nurse anesthetist.

**WORKING CONDITIONS**

Work in clean, well-lighted hospital environment. Wear gloves, masks, or other protective gear at times. May stand for long periods. Usually work about 40 hours a week. Weekends, nights, & mornings are all possible. May be exposed to disease & infections. Responsible for the health & safety of others. Important to be accurate.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
45,090	61,130

Very fast growth to 2024. Around 2,670 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$32.45	\$67,500	\$55,300 – 82,500
<b>Kentucky</b>	\$27.87	\$58,000	\$48,900 – 68,500

**LOCATION**

Over a quarter of all occupations work in Louisville area; over a fifth in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

About 64% work in hospitals; 19% work in ambulatory health care services; remainder spread throughout several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Clinical nurse; staff nurse.

**RELATED OCCUPATIONS**

Emergency medical technicians & paramedics; occupational therapists; physical therapists; physician assistants; respiratory therapists; social workers.

## JOB DESCRIPTION

Assess, plan, organize, & participate in rehabilitative programs that help restore vocational, homemaking, & daily living skills, as well as general independence, to disabled persons.

## EDUCATION

Master's degree. Licensing through Kentucky Board of Licensure for Occupational Therapy.

## LOCATION OF TRAINING & EDUCATION

Statewide colleges & universities.

## SKILLS

Active listening; reading comprehension; service orientation; writing; speaking.

## ABILITIES

Oral comprehension & expression; written expression; speech clarity & recognition; information ordering; problem sensitivity; deductive & inductive reasoning.

## KNOWLEDGE

Therapy & counseling; psychology; customer & personal service; English language proficiency; education & training.

## TASKS

Advise on health risks in the workplace & on health-related transition to retirement. Conduct research in occupational therapy. Consult with rehabilitation team to select activity programs & coordinate occupational therapy with other therapeutic activities. Design & create special supplies & equipment. Develop & participate in health promotion programs, group activities. Evaluate patients' progress. Help clients improve decision making, abstract reasoning, memory, sequencing, coordination & perceptual skills. Plan & implement programs & social activities to help patients learn work & school skills & adjust to handicaps. Plan, organize, & conduct occupational therapy programs in hospital, institutional, or community settings to help rehabilitate those impaired because of illness, injury or psychological or developmental problems. Provide patients with assistance in locating & holding jobs. Provide training & supervision in therapy techniques & objectives for students & nurses & other medical staff. Select activities that will help individuals learn work & life-management skills within limits of their mental & physical capabilities. Test & evaluate patients' physical & mental abilities & analyze medical data to determine realistic rehabilitation goals for patients.

## WORK ACTIVITIES

Obtain, document, & record information; develop objectives & strategies; assist & care for others; establish & maintain interpersonal relationships.

## ADVANCEMENT OPPORTUNITIES

May advance to management or supervisory positions with greater responsibilities & pay.

## WORKING CONDITIONS

Work in hospitals & other health care settings. Typically work a 40-hour week. Work can be tiring from long periods spent on feet. Those providing home aide may travel a great deal. Potential for back & muscle strain from lifting & moving equipment or patients.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
1,860	2,710

Very fast growth to 2024. Around 120 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$38.54	\$80,200	\$66,000 – 96,600
Kentucky	\$38.50	\$80,100	\$67,200 – 92,700

## LOCATION

Almost a fifth of occupations are in Louisville area; another fifth in Bluegrass area; others statewide.

## INDUSTRIES OF EMPLOYMENT

About 39% work in offices ambulatory health care services; about 26% in hospitals; 23% in nursing and residential care facilities; others spread among several industries.

## ALTERNATE OCCUPATIONAL TITLES

Rehabilitation engineer; vocational trainer; independent living specialist.

## RELATED OCCUPATIONS

Audiologists; chiropractors; rehabilitation counselors; recreational therapists; physical therapists; respiratory therapists; speech-language pathologists.

**JOB DESCRIPTION**

Assess, plan, organize, & participate in rehabilitative programs that improve mobility, relieve pain, increase strength, & decrease or prevent deformity of patients suffering from disease or injury.

**EDUCATION**

Master's degree. Licensed by Kentucky Board of Physical Therapy.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Reading comprehension; time management; instructing; active listening; critical thinking.

**ABILITIES**

Problem sensitivity; oral & written comprehension; oral expression; inductive reasoning.

**KNOWLEDGE**

Biology; medicine & dentistry; education & training; customer service; therapy & counseling.

**TASKS**

Carry out individually designed programs of physical treatment to improve physical functioning, alleviate pain & prevent physical dysfunction in patients. Perform an initial exam, evaluating data to identify problems & determine a diagnosis prior to intervention. Evaluate effects of treatment at various stages & adjust treatments to achieve maximum benefit. Administer manual exercises to help relieve pain, increase the patient's strength, & decrease or prevent deformity & crippling. Instruct patient & family in treatment procedures to be continued at home. Confer with the patient, medical practitioners & appropriate others to plan, implement & assess the intervention program. Review physician's referral & patient's medical records to help determine diagnosis & physical therapy treatment required. Record progress in patient's chart or enter information into computer. Discharge patient from physical therapy when goals or projected outcomes have been attained & provide for appropriate follow up care or referrals.

**WORK ACTIVITIES**

Obtain information; assist & care for others; make decisions & solve problems; identify actions, maintain relationships; objects & events.

**ADVANCEMENT OPPORTUNITIES**

Expected to continue professional development by participating in continuing education courses & workshops. Some states require continuing education as a condition of maintaining one's licensure.

**WORKING CONDITIONS**

Work in hospitals, clinics, & private offices. Work a 40-hour week, often including evenings & weekends. Can be physically demanding due to stooping, kneeling, crouching, lifting, & standing for long periods.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
2,820	4,150

Very fast growth to 2024. Around 210 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$40.40	\$84,000	\$69,600 – 98,900
<b>Kentucky</b>	\$40.34	\$83,900	\$70,600 – 95,000

**LOCATION**

Nearly a quarter of occupations are in Bluegrass area; a fifth in Louisville area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

About 49% work in offices ambulatory health care services; about 30% in hospitals; 10% in nursing and residential care facilities; others spread among several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Rehabilitation services directors.

**RELATED OCCUPATIONS**

Recreational therapists; physical therapists; respiratory therapists; chiropractors; audiologists; speech-language pathologists.

## JOB DESCRIPTION

Assess, treat, & care for patients with breathing disorders. Assume primary responsibility for all respiratory care modalities, including the supervision of respiratory therapy technicians. Initiate & conduct therapeutic procedures; maintain patient records; & select, assemble, check, & operate equipment.

## EDUCATION

Associate's degree. Licensing through Kentucky Board of Respiratory Care.

## LOCATION OF TRAINING & EDUCATION

Statewide colleges & universities.

## SKILLS

Active listening; instructing; reading comprehension; monitoring; critical thinking.

## ABILITIES

Oral comprehension & expression; problem sensitivity; speech clarity & recognition.

## KNOWLEDGE

Medicine & dentistry; customer & personal service; English language proficiency; psychology; education & training.

## TASKS

Conduct tests to evaluate patients' cardiopulmonary functions. Demonstrate respiratory care procedures to trainees & other health care personnel. Determine requirements for treatment. Educate patients & their families about their conditions. Explain treatment procedures to patients. Maintain respiratory therapy equipment. Maintain charts that contain patients' pertinent identification & therapy information. Make emergency visits to resolve equipment problems. Monitor patient's physiological responses to therapy. Assist or instruct patients in performance of breathing exercises. Provide emergency care, including artificial respiration, external cardiac massage & assistance with cardiopulmonary resuscitation. Read prescription, measure arterial blood gases, & review patient information to assess patient condition. Relay blood analysis results to a physician. Set up & operate devices such as mechanical ventilators, therapeutic gas administration apparatus, environmental control systems, & aerosol generators, following specified parameters of treatment. Teach & train assistants.

## WORK ACTIVITIES

Assist & care for others; organize, plan, & prioritize work; communicate with peers, supervisors, & subordinates; obtain information.

## ADVANCEMENT OPPORTUNITIES

May move from general care to the care of critically ill patients who have significant problems in other organ systems. May also advance to management or supervisory positions with greater responsibilities & pay.

## WORKING CONDITIONS

Usually work between 35 & 40 hours a week. May work evenings, nights, or weekends. Spend long periods standing & walking. Often work under a great deal of stress. Those employed in home health care must travel frequently to the homes of patients.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
3,120	4,100

Very fast growth to 2024. Around 100 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$27.78	\$57,800	\$48,800 – 69,500
Kentucky	\$22.73	\$47,300	\$41,200 – 55,300

## LOCATION

Nearly one quarter of occupations are in Bluegrass area; a fifth in Louisville area; others statewide.

## INDUSTRIES OF EMPLOYMENT

More than 84% work in hospitals; the rest work in any of a number of industries.

## ALTERNATE OCCUPATIONAL TITLES

Director of cardiopulmonary services.

## RELATED OCCUPATIONS

Registered nurses; occupational therapists; physical therapists; radiation therapists.

## JOB DESCRIPTION

Assess & treat persons with speech, language, voice, & fluency disorders. May select alternative communication systems & teach their use. May perform research related to speech & language problems.

## EDUCATION

Master’s degree. Licensed by the Kentucky Board of Speech-Language Pathology & Audiology.

## LOCATION OF TRAINING & EDUCATION

Statewide colleges & universities.

## SKILLS

Instructing; speaking; writing; active learning; learning strategies; reading comprehension.

## ABILITIES

Oral & written comprehension & expression; speech clarity.

## KNOWLEDGE

Therapy & counseling; education & training; medicine & dentistry; English language proficiency; administration & management principles; human resources.

## TASKS

Administer hearing or speech/language examinations to patients to collect information on type & degree of impairments. Develop & implement treatment plans for problems such as stuttering, delayed language, swallowing disorders, & inappropriate pitch or harsh voice problems. Develop speech exercise programs to reduce disabilities. Evaluate hearing & speech/language test results & medical or background information to diagnose treatment for speech, language, fluency, voice, & swallowing disorders. Instruct clients in techniques for more effective communication, including sign language, lip reading, & voice improvement. Monitor patients' progress & adjust treatments accordingly. Record information on the initial evaluation, treatment, progress, & discharge of clients. Refer clients to additional medical or educational services if needed. Teach clients to control or strengthen tongue, jaw, face muscles, & breathing mechanisms. Communicate with non-speaking students, using sign language or computer technology.

## WORK ACTIVITIES

Obtain information; make decisions & solve problems; maintain up-to-date knowledge; identify objects, actions, & events.

## ADVANCEMENT OPPORTUNITIES

The nature of this occupation does not allow for great opportunities for advancement. However, one can pursue a career in instruction.

## WORKING CONDITIONS

Though not physically demanding, this occupation requires attention to detail & intense concentration. The emotional needs of clients & their families may be demanding. Work between 35 & 40 hours per week; some work part time. May spend a substantial amount of time traveling between facilities.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
2,350	3,160

Very fast growth to 2024. Around 140 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$35.29	\$73,400	\$57,300 – 93,300
<b>Kentucky</b>	\$30.94	\$64,400	\$54,000 – 86,700

## LOCATION

Almost a fifth of occupations are in Bluegrass area; one seventh in Louisville area; others statewide.

## INDUSTRIES OF EMPLOYMENT

About 46% work in educational services; 26% in ambulatory care services; 10% in hospitals; those remaining spread among several industries.

## RELATED OCCUPATIONS

Audiologists; occupational therapists; optometrists; physical therapists; psychologists; recreational therapists; rehabilitation counselors.

## JOB DESCRIPTION

Diagnose & treat diseases & dysfunctions of animals. May engage in a particular function, such as research & development, consultation, administration, technical writing, sale or production of commercial products, or rendering of technical services to commercial firms or other organizations. Include veterinarians who inspect livestock.

## EDUCATION

First professional degree. Licensed by the Kentucky Board of Veterinary Examiners.

## LOCATION OF TRAINING & EDUCATION

Statewide colleges & universities.

## SKILLS

Active listening; critical thinking; reading comprehension; complex problem solving; speaking.

## ABILITIES

Inductive reasoning; oral comprehension & expression; speech clarity & recognition; problem sensitivity; written comprehension.

## KNOWLEDGE

Biology; medicine & dentistry; customer & personal service; English language proficiency; mathematics.

## TASKS

Advise animal owners regarding sanitary measures, feeding, & general care necessary to promote health of animals. Collect body tissue, feces, blood, urine, or other body fluids for examination & analysis. Conduct postmortem studies & analyses to determine the causes of animals' deaths. Determine the effects of drug therapies, antibiotics, or new surgical techniques by testing them on animals. Drive mobile clinic vans to farms so that health problems can be treated or prevented. Euthanize animals. Examine animals to detect & determine the nature of diseases or injuries. Inoculate animals against various diseases such as rabies & distemper. Inspect & test horses, sheep, poultry, & other animals to detect the presence of communicable diseases. Inspect animal housing facilities to determine their cleanliness & adequacy. Plan & execute animal nutrition & reproduction programs. Provide care to a wide range of animals or specialize in a particular species. Research diseases to which animals could be susceptible. Treat sick or injured animals.

## WORK ACTIVITIES

Update & use relevant knowledge; make decisions & solve problems; obtain information; identify objects, actions, & events; work directly with the public.

## ADVANCEMENT OPPORTUNITIES

With experience, many set up own practice or purchase an established one.

## WORKING CONDITIONS

Often work long hours. Work outdoors in all kinds of weather. May have to operate under unsanitary conditions. Risk being bitten, kicked, or scratched.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
3,050	3,520

Very fast growth to 2024. Around 90 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$42.54	\$88,500	\$69,300 – 117,000
<b>Kentucky</b>	\$37.35	\$77,700	\$60,300 – 67,400

## LOCATION

Statewide.

## INDUSTRIES OF EMPLOYMENT

More than 76% work in other professional, scientific, & technical services; remainder spread across a number of industries.

## ALTERNATE OCCUPATIONAL TITLES

Animal doctor.

## RELATED OCCUPATIONS

Chiropractors; dentists; optometrists; physicians & surgeons; podiatrists; biological scientists; medical scientists; animal care & service workers; veterinary technologists & technicians.

**JOB DESCRIPTION**

Assess patient health problems & needs, develop & implement nursing care plans, & maintain medical records. Administer nursing care to patients. May advise patients on health maintenance & disease prevention or provide case management. Includes advance practice nurses such as: nurse practitioners, clinical nurse specialists, certified nurse midwives, & certified registered nurse anesthetists.

**EDUCATION**

Associate’s degree. Licensing through Kentucky Board of Nursing.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Reading comprehension; science; critical thinking; active listening.

**ABILITIES**

Problem sensitivity; oral & written comprehension; written expression; information ordering; near vision.

**KNOWLEDGE**

Chemistry; psychology; medicine & dentistry; therapy & counseling; biology.

**TASKS**

Consult & coordinate with health care team members to plan patient care plans. Maintain accurate reports & records. Modify patient treatment plans as indicated by patients' responses & conditions. Monitor all aspects of patient care, including diet & physical activity. Monitor & record changes in patients' conditions. Observe nurses & visit patients to ensure that proper nursing care is provided. Prepare patients for, & assist with, examinations & treatments. Prepare rooms, sterile instruments, equipment & supplies, & ensure that stock of supplies is maintained. Provide health care, first aid, immunizations & assistance in convalescence & rehabilitation in locations such as schools, hospitals, & industry. Record patients' medical information & vital signs.

**WORK ACTIVITIES**

Obtain, document, & record information; monitor process, materials, or surroundings; communicate with peers, supervisors, & subordinates; maintain up-to-date knowledge; assist & care for others.

**ADVANCEMENT OPPORTUNITIES**

Experience & good performance can lead to promotion. Can move into a nursing specialty such as clinical nurse specialist, nurse practitioner, certified nurse midwife, or certified registered nurse anesthetist.

**WORKING CONDITIONS**

Work in clean, well-lighted hospital environment. Wear gloves, masks, or other protective gear at times. May stand for long periods. Usually work about 40 hours a week. Weekends, nights, & mornings are all possible. May be exposed to disease & infections. Responsible for the health & safety of others. Important to be accurate.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
45,090	61,130

Very fast growth to 2024. Around 2,670 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$32.45	\$67,500	\$55,300 – 82,500
<b>Kentucky</b>	\$27.87	\$58,000	\$48,900 – 68,500

**LOCATION**

Over a quarter of all occupations work in Louisville area; nearly a fifth in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

About 60% work in hospitals; 7% work in offices of physicians; remainder spread throughout several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Clinical nurse; staff nurse.

**RELATED OCCUPATIONS**

Emergency medical technicians & paramedics; occupational therapists; physical therapists; physician assistants; respiratory therapists; social workers.

**JOB DESCRIPTION**

Perform complex medical laboratory tests for diagnosis, treatment, & prevention of disease. May train or supervise staff.

**EDUCATION**

Bachelor's degree.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Quality control analysis; equipment maintenance; operation & control; troubleshooting; reading comprehension.

**ABILITIES**

Near vision; problem sensitivity; inductive reasoning; oral expression; written comprehension.

**KNOWLEDGE**

Chemistry; biology; English language proficiency; public safety & security; computers & electronics.

**TASKS**

Analyze laboratory findings to check the accuracy of the results. Analyze samples of biological material. Conduct chemical analysis of body fluids. Conduct medical research under direction of microbiologist or biochemist. Develop procedures, techniques & tests used in medical laboratory experiments. Enter data from analysis of medical tests & clinical results into computer for storage. Monitor programs to ensure the accuracy of laboratory results. Harvest cell cultures at optimum time based on knowledge of cell cycle differences & culture conditions. Maintain equipment used in quantitative & qualitative analysis. Provide technical information about test results to physicians, family members & researchers. Select & prepare specimen & media for cell culture. Maintain laboratory equipment. Study blood samples to determine the number of cells & their morphology, as well as the blood group, type & compatibility for transfusion purposes, using microscopic technique. Supervise, train, & direct lab assistants, medical & clinical laboratory technicians & technologists, & other medical laboratory workers.

**WORK ACTIVITIES**

Make decisions & solve problems; organize, plan, & prioritize work; identify objects, actions, & events; document & record information; evaluate information to determine compliance with standards.

**ADVANCEMENT OPPORTUNITIES**

May advance to supervisory positions or become chief medical or clinical laboratory technologists or laboratory managers in hospitals.

**WORKING CONDITIONS**

Hours vary with the size & type of employment. Clinical laboratory personnel are trained to work with infectious specimens. Protective masks, gloves, & goggles are often necessary. Laboratories usually are well-lighted & clean but sometimes might have fumes.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
2,210	2,890

Average growth to 2024. Around 120 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$29.09	\$60,500	\$51,100 – 72,800
Kentucky	\$27.29	\$56,800	\$48,500 – 65,300

**LOCATION**

About a fifth in each of Louisville & Bluegrass areas; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Nearly 68% work in hospitals; 8% work in ambulatory health care services; remainder work in a variety of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Microbiologist; laboratory manager; medical technician or technologist.

**RELATED OCCUPATIONS**

Chemists & materials scientists; science technicians; veterinary technologists & technicians.

**JOB DESCRIPTION**

Clean teeth & examine oral areas, head, & neck for signs of oral disease. May educate patients on oral hygiene, take & develop X-rays, or apply fluoride or sealants.

**EDUCATION**

Associate’s degree. Licensing through Kentucky Board of Dentistry.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Active listening & learning; reading comprehension; time management; speaking.

**ABILITIES**

Finger & manual dexterity; arm-hand steadiness; near vision; problem sensitivity.

**KNOWLEDGE**

Medicine & dentistry; customer & personal service; biology; education & training; English language proficiency.

**TASKS**

Administer local anesthetic agents. Apply fluorides & other cavity preventing agents to arrest dental decay. Chart conditions of decay & disease for diagnosis & treatment by dentist. Clean calcareous deposits, accretions, & stains from teeth & beneath margins of gums, using dental instruments. Conduct dental health clinics for community groups to augment services of dentist. Examine gums, using probes, to locate periodontal recessed gums & signs of gum disease. Expose & develop x-ray film. Feel & visually examine gums for sores & signs of disease. Feel lymph nodes under patient's chin to detect swelling or tenderness that could indicate presence of oral cancer. Make impressions for study casts. Place & remove rubber dams, matrices, & temporary restorations. Place, carve, & finish amalgam restorations. Provide clinical services & health education to improve & maintain oral health of school children. Remove excess cement from coronal surfaces of teeth. Remove sutures & dressings.

**WORK ACTIVITIES**

Assist & care for others; obtain information; work directly with the public; identify objects, actions, & events; update & use relevant knowledge.

**ADVANCEMENT OPPORTUNITIES**

Advancement can come with additional education & experience.

**WORKING CONDITIONS**

Flexible scheduling is a distinctive feature of this job. Dentists frequently hire hygienists to work only two or three days a week, so hygienists may hold jobs in more than one dental office. Work in clean, well-lighted offices. Important health safeguards include strict adherence to proper radiological procedures, & the use of appropriate protective devices when administering anesthetic gas. Must wear gear to protect themselves & patients from infectious diseases.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
3,850	4,540

Very fast growth to 2024. Around 90 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$34.77	\$72,300	\$60,300 – 85,900
Kentucky	\$27.30	\$56,800	\$50,100 – 63,500

**LOCATION**

Nearly a third of occupations are in Louisville area; about a quarter in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Over 95% work in ambulatory health care services. Others may work elsewhere.

**RELATED OCCUPATIONS**

Dental assistants; medical assistants; occupational therapist assistants & aides; physical therapist assistants & aides; physician assistants; registered nurses.

**JOB DESCRIPTION**

Produce ultrasonic recordings of internal organs for use by physicians.

**EDUCATION**

Associate’s degree.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Active listening; reading comprehension; social perceptiveness; critical thinking; speaking.

**ABILITIES**

Oral expression & comprehension; written expression; problem sensitivity; near vision; speech clarity & recognition.

**KNOWLEDGE**

Medicine & dentistry; English language proficiency; customer & personal service; education & training; biology; physics.

**TASKS**

Maintain sonographic equipment, submitting maintenance requests or performing minor repairs as necessary. Coordinate work with physicians & other health care team members. Load & unload film cassettes used to record images from procedures. Maintain various types of records & patient history. Maintain stock & supplies. Observe & care for patients throughout examinations to ensure their safety & comfort. Observe screen during scan to ensure that image produced is satisfactory. Operate ultrasound equipment. Perform legal & ethical duties including preparing safety & accident reports, obtaining written consent from patient to perform invasive procedures, & reporting symptoms of abuse & neglect. Perform medical procedures such as administering oxygen, inserting & removing airways, taking vital signs, & giving emergency treatment, such as first aid or cardiopulmonary resuscitation (CPR). Prepare patient for exam by explaining procedure, transferring them to ultrasound table, scrubbing skin & applying gel, & positioning them properly. Process & code film from procedures & complete appropriate documentation. Provide sonogram & oral or written summary of technical findings to physician for use in medical diagnosis.

**WORK ACTIVITIES**

Assist & care for others; document & record information; identify objects, actions, & events; establish & maintain interpersonal relationships.

**ADVANCEMENT OPPORTUNITIES**

Continued training to remain abreast of new advances is preferred for advancement to positions of higher responsibility & pay.

**WORKING CONDITIONS**

Most work 40 hour s a week. Hospital-based sonographers may have evening & weekend hours & may be on call. Typically work in facilities that are clean & well lighted. Travel may be required. Many are contract employers & work at different locations. Spend much time on feet & must sometimes lift patients or equipment.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
920	1,320

Very fast growth to 2024. Around 60 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$33.16	\$69,000	\$57,100 – 81,500
Kentucky	\$28.86	\$60,000	\$51,600 – 70,700

**LOCATION**

Statewide.

**INDUSTRIES OF EMPLOYMENT**

Over 73% work in hospitals; 26% in ambulatory health care services; remainder in one of a few other industries.

**ALTERNATE OCCUPATIONAL TITLES**

Echo tech; ultrasound technician.

**RELATED OCCUPATIONS**

Cardiovascular technologists & technicians; clinical laboratory technologists & technicians; nuclear medicine technologists; radiologic technologists & technicians; respiratory therapists.

## JOB DESCRIPTION

Assess injuries, administer emergency medical care, & extricate trapped individuals. Transport injured or sick persons to medical facilities.

## EDUCATION

Postsecondary vocational award. Licensed by the Kentucky Board of Emergency Medical Services.

## LOCATION OF TRAINING & EDUCATION

Statewide community colleges & technical schools.

## SKILLS

Active listening; critical thinking; speaking; coordination; equipment maintenance.

## ABILITIES

Oral comprehension & expression; problem sensitivity; deductive & inductive reasoning.

## KNOWLEDGE

Medicine & dentistry; customer service; chemistry; education & training; public safety & security.

## TASKS

Administer first-aid treatment & life-support care to sick or injured persons in prehospital setting. Operate equipment such as EKGs, external defibrillators & bag-valve mask resuscitators in advanced life-support environments. Assess nature & extent of illness or injury to establish & prioritize medical procedures. Maintain vehicles & medical & communication equipment, & replenish first-aid equipment & supplies. Report to physician the patient's condition or injury, the treatment provided, & reactions to drugs & treatment. Perform emergency diagnostic & treatment procedures during ambulance ride. Administer drugs & perform intravenous procedures under a physician's direction. Coordinate work with other emergency medical team members & police & fire department. Communicate with dispatchers & treatment center personnel to provide information about situation, to arrange reception of victims, & to receive instructions for further treatment.

## WORK ACTIVITIES

Make decisions & solve problems; assist & care for others; obtain, document, & record information; operate vehicles & equipment; perform general physical activities.

## ADVANCEMENT OPPORTUNITIES

Advancement usually means leaving fieldwork. Can become a supervisor, operations manager, administrative director, executive director of emergency services, instructor, dispatcher, or physician assistant.

## WORKING CONDITIONS

Work a 40-hour workweek but sometimes weekends & nights. Often on call for holidays or other occasions. The pressure of immediacy can cause great stress. Must work in a group or team environment. May be exposed to disease or infection. Work outdoors, exposed to weather.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

2014	2024
4,550	5,750

Fast growth to 2024. Around 210 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$15.38	\$32,000	\$25,500 – 42,200
Kentucky	\$13.79	\$28,700	\$22,900 – 36,300

## LOCATION

Nearly a quarter of openings in the Louisville area; others statewide.

## INDUSTRIES OF EMPLOYMENT

About 52% work in local government; 34% work in other ambulatory health care services; rest spread among several industries.

## ALTERNATE OCCUPATIONAL TITLES

EMT; first responder.

## RELATED OCCUPATIONS

Air traffic controllers; firefighting occupations; physician assistants; police & detectives; registered nurses.

**JOB DESCRIPTION**

Prepare medications under the direction of a pharmacist. May measure, mix, count out, label, & record amounts & dosages of medications.

**EDUCATION**

Moderate-term on-the-job training. Licensing through Kentucky Board of Pharmacy.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Mathematics; reading comprehension; active listening; science; writing.

**ABILITIES**

Information ordering; number facility; oral & written comprehension; near vision.

**KNOWLEDGE**

Medicine & dentistry; computers & electronics; chemistry; mathematics; administrative & clerical procedures.

**TASKS**

Add measured drugs or nutrients to intravenous solutions under sterile conditions to prepare intravenous (IV) packs under pharmacist supervision. Compute charges for medication & equipment dispensed to hospital patients, & enter data in computer. Fill bottles with prescribed medications & type & affix labels. Mix pharmaceutical preparations according to written prescriptions. Price & file prescriptions that have been filled. Receive written prescription or refill requests & verify that information is complete & accurate. Supply & monitor robotic machines that dispense medicine into containers, & label the containers. Transfer medication from vials to the appropriate number of sterile, disposable syringes, using aseptic techniques. Answer telephones, responding to questions or requests. Assist customers by answering simple questions, locating items or referring them to the pharmacist for medication information.

**WORK ACTIVITIES**

Obtain, process, document, & record information; handle & move objects; communicate with peers, supervisors, & subordinates; identify objects, actions, & events; perform administrative activities.

**ADVANCEMENT OPPORTUNITIES**

Advancement directly correlates to continued schooling & experience.

**WORKING CONDITIONS**

Work in clean, organized, well-lighted, & well-ventilated areas. Most of workday is spent on feet. May be required to lift heavy boxes or to use stepladders to retrieve supplies from high shelves. Hours may include evenings, nights, weekends, & holidays. May work varying shifts.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
6,900	8,470

Very fast growth to 2024. Around 230 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$14.62	\$30,400	\$24,800 – 37,300
<b>Kentucky</b>	\$12.84	\$26,700	\$22,200 – 32,800

**LOCATION**

Over two fifths of openings in Louisville area; over a third in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Around 61% work in health and personal care stores; about 17% in hospitals; the remainder work in several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Pharmaceutical care associate.

**RELATED OCCUPATIONS**

Pharmacists & pharmacy aides; dental assistants; licensed practical & licensed vocational nurses; medical transcriptionists; medical records & health information technicians; occupational therapist assistants & aides, physical therapist assistants & aides; surgical technologists.

**JOB DESCRIPTION**

Assist in operations, under the supervision of surgeons, registered nurses, or other surgical personnel. May help set up operating room, prepare & transport patients for surgery, adjust lights & equipment, pass instruments & other supplies to surgeons & surgeon's assistants, hold retractors, cut sutures, & help count sponges, needles, supplies, & instruments.

**EDUCATION**

Postsecondary vocational training. Licensing through Kentucky Board of Medical Licensure.

**LOCATION OF TRAINING & EDUCATION**

Statewide community colleges & technical schools.

**SKILLS**

Active listening & learning; critical thinking; equipment selection; coordination.

**ABILITIES**

Oral comprehension & expression; problem sensitivity; near vision; arm-hand steadiness; speech recognition.

**KNOWLEDGE**

Medicine & dentistry; customer & personal service; English language proficiency; education & training; chemistry.

**TASKS**

Clean & restock the operating room. Count sponges, needles, & instruments before & after operation. Hand instruments & supplies to surgeons & surgeons' assistants, hold retractors & cut sutures, & perform other tasks as directed by surgeon during operation. Maintain files & records of surgical procedures. Maintain supply of fluids for use during operations. Monitor & continually assess operating room conditions. Observe patients' vital signs to assess physical condition. Position patients on the operating table & cover them with sterile surgical drapes to prevent exposure. Prepare dressings or bandages & apply or assist with their application following surgery. Prepare, care for & dispose of tissue specimens taken for laboratory analysis. Provide technical assistance to surgeons, surgical nurses & anesthesiologists. Wash & sterilize equipment using germicides & sterilizers.

**WORK ACTIVITIES**

Assist & care for others; obtain information; perform general physical activities; inspect equipment, structures, or material; identify objects, actions, & events.

**ADVANCEMENT OPPORTUNITIES**

Technologists advance by specializing in a particular area of surgery, such as neurosurgery or open heart surgery. They also may work as circulating technologists who prepare patients for surgical procedures.

**WORKING CONDITIONS**

Most work a regular 40-hour week, but may be on call or work nights, weekends, & holidays on a rotating basis. Usually work in clean, well-lighted, cool environments. Must stand for long periods & remain alert during operations. May be exposed to communicable diseases & unpleasant sights, odors, & materials.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
1,730	2,290

Fast growth to 2024. Around 60 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$21.31	\$44,300	\$36,300 – 54,000
Kentucky	\$18.28	\$38,000	\$32,600 – 45,600

**LOCATION**

Nearly a third of occupations in Louisville area; a fifth in Bluegrass area; those remaining located statewide.

**INDUSTRIES OF EMPLOYMENT**

More than 74% work in hospitals; 24% in ambulatory health care services; rest in a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Anesthesia technician; scrub technician; orderly.

**RELATED OCCUPATIONS**

Dental assistants; licensed practical & licensed vocational nurses clinical; laboratory technologists & technicians; medical assistants.

## JOB DESCRIPTION

Perform medical tests in a laboratory environment for use in the treatment & diagnosis of diseases in animals. Prepare vaccines & serums for prevention of diseases. Prepare tissue samples, take blood samples, & execute laboratory tests. Clean & sterilize instruments & materials & maintain equipment & machines.

## EDUCATION

Associate's degree. Licensing through Kentucky Board of Veterinary Examiners.

## LOCATION OF TRAINING & EDUCATION

Statewide colleges & universities.

## SKILLS

Active listening & learning; critical thinking; reading comprehension; speaking.

## ABILITIES

Problem sensitivity; oral comprehension & expression; deductive reasoning; near vision.

## KNOWLEDGE

Customer & personal service; biology; mathematics; English language proficiency; medicine & dentistry.

## TASKS

Administer anesthesia to animals. Administer emergency first aid. Care for & monitor the condition of animals recovering from surgery. Clean & sterilize instruments, equipment, & materials. Clean kennels, animal holding areas, surgery suites, examination rooms, & animal loading/unloading facilities. Collect, prepare, & label samples. Conduct specialized procedures such as animal branding or tattooing, & hoof trimming. Dress & suture wounds, & apply splints & other protective devices. Fill prescriptions, measuring medications & labeling containers. Maintain instruments, equipment, & machinery to ensure proper working condition. Maintain laboratory, research, & treatment records, as well as inventories of pharmaceuticals, equipment, & supplies. Observe the behavior & condition of animals, & monitor their clinical symptoms. Perform dental work. Prepare & administer medications, vaccines, serums, & treatments. Prepare animals for surgery. Provide veterinarians with the correct equipment & instruments, as needed. Take & develop diagnostic radiographs, using x-ray equipment.

## WORK ACTIVITIES

Perform general physical activities; obtain, document, record information; identify object, actions, & events; communicate with peers, supervisors, & subordinates.

## ADVANCEMENT OPPORTUNITIES

May take on more responsibility & carry out more assignments under with experience. Some eventually may become supervisors.

## WORKING CONDITIONS

Most work about 40 hours a week; some work 50 or more hours a week. May work night shifts. Some of the work may be unpleasant, physically & emotionally demanding, & sometimes dangerous. May risk exposure to bites or scratches. Must take precautions when treating animals with germicides or insecticides. Work setting can be noisy. Those who witness abused animals or who euthanize unwanted, aged, or hopelessly injured animals may experience emotional stress.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
2,200	2,650

Very fast growth to 2024. Around 70 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$15.29	\$31,800	\$26,400 – 38,500
Kentucky	\$12.96	\$27,000	\$22,300 – 33,000

## LOCATION

About a third of occupations in Bluegrass area; a fifth in Louisville area; others statewide.

## INDUSTRIES OF EMPLOYMENT

Nearly 89% work in professional, scientific, & technical services.

## ALTERNATE OCCUPATIONAL TITLES

Veterinary assistant; clinical researcher.

## RELATED OCCUPATIONS

Animal care & service workers; veterinarians.

**JOB DESCRIPTION**

Care for ill, injured, convalescent, or disabled persons in hospitals, nursing homes, clinics, private homes, group homes, & similar institutions. May work under the supervision of a registered nurse. Licensing required.

**EDUCATION**

Postsecondary vocational award. Licensed by the Kentucky Board of Nursing.

**LOCATION OF TRAINING & EDUCATION**

Statewide.

**SKILLS**

Active listening; monitoring; reading comprehension; time management; writing.

**ABILITIES**

Oral comprehension & expression; deductive & inductive reasoning; problem sensitivity; information ordering.

**KNOWLEDGE**

Medicine & dentistry; customer service; therapy & counseling; education & training; English language proficiency.

**TASKS**

Observe patients, charting & reporting changes in patients' conditions. Administer prescribed medications or start intravenous fluids, & note times & amounts on patients' charts. Answer patients' calls & determine how to assist them. Measure & record patients' vital signs. Provide basic patient care & treatments, such as taking temperatures & blood pressure, dressing wounds, treating bedsores, giving enemas, douches, alcohol rubs, & massages, or performing catheterizations. Help patients with bathing, dressing, personal hygiene, moving in bed, & standing & walking. Supervise nurses' aides & assistants. Work as part of a health care team to assess patient needs, plan & modify care & implement interventions. Record food & fluid intake & output. Evaluate nursing intervention outcomes, conferring with other health-care team members as necessary.

**WORK ACTIVITIES**

Obtain, document, & record information; make decisions & solve problems; assist & care for others; organize, plan, & prioritize work; maintain up-to-date knowledge.

**ADVANCEMENT OPPORTUNITIES**

May advance by moving to larger facilities. May also pursue further education in medical fields.

**WORKING CONDITIONS**

Work in clean, well-lighted areas. May be exposed to unpleasant sights & odors. Forty-hour week which may include evenings, nights, weekends, & holidays. May work varying shifts. May deal with unruly patients. May be exposed to disease or infection.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
7,000	8,910

Very fast growth to 2024. Around 390 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$20.76	\$43,200	\$36,300 – 50,200
Kentucky	\$18.62	\$38,700	\$33,900 – 45,100

**LOCATION**

Over a fifth of openings in Louisville area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

About 40% in nursing & residential care facilities; around 24% work in hospitals; 20% work in ambulatory health care services; the remaining work in several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Charge nurse; office nurse; clinic nurse; private duty nurse.

**RELATED OCCUPATIONS**

Emergency medical technicians & paramedics; social & human service assistants; surgical technologists; teacher assistants.

**JOB DESCRIPTION**

Maintain medical records of hospital & clinic patients in a manner consistent with medical, administrative, ethical, legal, & regulatory requirements of the health care system. Process, maintain, compile, & report patient information for health requirements & standards.

**EDUCATION**

Associate’s degree.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Active listening; speaking; reading comprehension; writing; time management.

**ABILITIES**

Oral & written comprehension; oral expression; information ordering; near vision; speech clarity.

**KNOWLEDGE**

Administrative & clerical procedures; customer service; English language proficiency; computers & electronics; administrative & management principles.

**TASKS**

Protect the security of medical records to ensure that confidentiality is maintained. Process patient admission & discharge documents. Review records for completeness, accuracy & compliance with regulations. Maintain patients’ medical records to document condition & treatment & to provide data for research or cost control & care improvement efforts. Release information to persons & agencies according to regulations. Plan, develop, maintain & operate a variety of health record indexes & storage & retrieval systems to collect, classify, store & analyze information. Manage the department & supervise clerical workers, directing & controlling activities of personnel in the medical records department. Transcribe medical reports. Identify, compile, abstract & code patient data, using standard classification systems.

**WORK ACTIVITIES**

Obtain information; interact with computers; communicate with peers, supervisors, & subordinates; perform administrative activities; maintain up-to-date knowledge. Must draft letters & memos.

**ADVANCEMENT OPPORTUNITIES**

May advance to section supervisor, overseeing the work of the coding, correspondence, or discharge sections, for example. May become director or assistant director of a medical records & health information department in a small facility.

**WORKING CONDITIONS**

Work in clean, well-lighted offices. Most work a 40-hour week which may include evenings, nights, weekends, & holidays in hospital settings. Rarely interact with patients. Maintain contact with others, often in close proximity.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

2014	2024
4,580	5,810

Fast growth to 2024. Around 230 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$17.84	\$37,100	\$29,100 – 48,500
Kentucky	\$16.36	\$34,000	\$26,900 – 43,600

**LOCATION**

Nearly a third of occupations are in Louisville area; a quarter in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Around 42% work in hospitals; about 34% in ambulatory health care services; the remainder work within a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Receptionist; coder; health information clerk; medical records analyst.

**RELATED OCCUPATIONS**

Medical secretaries; medical transcriptionists.

**JOB DESCRIPTION**

Provide routine, personal healthcare, such as bathing, dressing, or grooming, to elderly, convalescent, or disabled persons in the home of patients or in a residential care facility.

**EDUCATION**

Short-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Service orientation; social perceptiveness; active listening; speaking; coordination; judgment & decision making; time management; writing.

**ABILITIES**

Oral & written comprehension; oral expression; manual dexterity; static strength; problem sensitivity.

**KNOWLEDGE**

Customer service; therapy & counseling; psychology; administrative & clerical procedures; medicine & dentistry.

**TASKS**

Administer prescribed oral medications under written direction of physician or as directed by home care nurse & aide. Change dressings. Check patients' pulse, temperature & respiration. Direct patients in prescribed exercises & in the use of braces or artificial limbs. Maintain records of patient care, condition, progress, & problems in order to report & discuss observations with a supervisor or case manager. Massage patients & apply preparations & treatments, such as liniment, alcohol rubs, & heat-lamp stimulation. Provide patients with help moving in & out of beds, baths, wheelchairs or automobiles, & with dressing & grooming. Accompany clients to doctors' offices & on other trips outside the home, providing transportation, assistance & companionship. Care for children who are disabled or who have sick or disabled parents. Change bed linens, wash & iron patients' laundry, & clean patients' quarters.

**WORK ACTIVITIES**

Assist & care for others; perform general physical activities; handle & move objects; maintain interpersonal relationships; document & record information.

**ADVANCEMENT OPPORTUNITIES**

Advancement opportunities are limited. To enter other health occupations, aides generally need additional formal training.

**WORKING CONDITIONS**

Both part-time & full-time work is common. Many work evenings, weekends, & holidays. Some duties, such as changing bedpans & soiled bed sheets, are unpleasant. Often work alone, with occasional visits by supervisors. May be exposed to disease or infection. Spend time sitting & standing. Responsible for the health & safety of others.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
4,150	6,620

Very fast growth to 2024. Around 340 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$10.54	\$21,900	\$19,200 – 24,900
<b>Kentucky</b>	\$10.54	\$21,900	\$18,700 – 26,800

**LOCATION**

Nearly a third of all openings in Lake Cumberland area; a fifth in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Around 49% work in ambulatory health care services; 19% work for nursing & residential care facilities; the remainder may work in a variety of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Nursing aides; psychiatric aides; residential counselor.

**RELATED OCCUPATIONS**

Childcare workers; medical assistants; occupational therapist assistants & aides; personal & home care aides; physical therapist assistants & aides.

**JOB DESCRIPTION**

Provide basic patient care under direction of nursing staff. Feed, bathe, dress, groom, or move patients, or change linens.

**EDUCATION**

Postsecondary vocational training.

**LOCATION OF TRAINING & EDUCATION**

Statewide community colleges & technical schools.

**SKILLS**

Service orientation; social perceptiveness; active listening; speaking; coordination; technology design.

**ABILITIES**

Oral & written comprehension; oral expression; arm-hand steadiness; static strength; near vision.

**KNOWLEDGE**

Customer service; medicine & dentistry; chemistry; therapy & counseling; public safety & security.

**TASKS**

Administer medications & treatments, such as catheterizations, suppositories, irrigations, enemas, massages, & douches, as directed by a physician or nurse. Answer patients' call signals. Bathe, groom, shave, dress, and/or drape patients to prepare them for surgery, treatment, or examination. Clean rooms & change linens. Feed patients who are unable to feed themselves. Prepare, serve, & collect food trays. Provide patient care by supplying & emptying bed pans, applying dressings & supervising exercise routines. Provide patients with help walking, exercising, & moving in & out of bed. Transport patients to treatment units, using a wheelchair or stretcher. Turn & re-position bedridden patients, alone or with assistance, to prevent bedsores.

**WORK ACTIVITIES**

Assist & care for others; perform general physical activities; handle & move objects; maintain interpersonal relationships; document & record information; identify objects, actions, & events.

**ADVANCEMENT OPPORTUNITIES**

Advancement opportunities are limited. To enter other health occupations, aides generally need additional formal training.

**WORKING CONDITIONS**

Both part time & full time work is common. Many work evenings, weekends, & holidays. Some duties, such as changing bedpans & soiled bed sheets, are unpleasant. Often work alone, with occasional visits by supervisors. May be exposed to disease or infection. Spend time sitting & standing. Responsible for the health & safety of others. Must often wear protective gear.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
25,450	37,180

Fast growth to 2024. Around 1,750 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$12.36	\$25,700	\$21,800 – 30,500
<b>Kentucky</b>	\$11.53	\$24,000	\$20,800 – 28,300

**LOCATION**

More than a quarter of occupations are in Louisville area; one eighth in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Around 55% work in nursing & residential care facilities; 34% in hospitals; the remainder work in several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Home health aides; psychiatric aides.

**RELATED OCCUPATIONS**

Childcare workers; medical assistants; occupational therapist assistants & aides; personal & home care aides; physical therapist assistants & aides.

**JOB DESCRIPTION**

Assist physical therapists in providing physical therapy treatments & procedures. May assist in the development of treatment plans, carry out routine functions, document the progress of treatment, & modify specific treatments in accordance with patient status & within the scope of treatment plans established by a physical therapist.

**EDUCATION**

Associate’s degree. Licensing through Kentucky Board of Physical Therapy.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Active listening; reading comprehension; time management; instructing; writing.

**ABILITIES**

Oral comprehension & expression; speech clarity & recognition; problem sensitivity; static strength.

**KNOWLEDGE**

Therapy & counseling; customer & personal service; English language proficiency; education & training; medicine & dentistry.

**TASKS**

Administer active & passive manual therapeutic exercises, therapeutic massage, & heat, light, sound, water, & electrical modality treatments, such as ultrasound. Administer traction to relieve neck & back pain. Assist patients to dress, undress, or put on & remove supportive devices, such as braces, splints, & slings. Clean work area & check & store equipment after treatment. Fit patients for orthopedic braces, prostheses, & supportive devices, such as crutches. Instruct, motivate, safeguard & assist patients as they practice exercises & functional activities. Measure patients’ range-of-joint motion, body parts, & vital signs to determine effects of treatments or for patient evaluations. Observe patients during treatments to compile & evaluate data on patients’ responses & progress, & report to physical therapist. Prepare treatment areas & electrotherapy equipment for use by physiotherapists. Train patients in the use of orthopedic braces, prostheses, or supportive devices. Transport patients to & from treatment areas, lifting & transferring them according to positioning requirements.

**WORK ACTIVITIES**

Assist & care for others; perform general physical activities; work directly with the public; document & record information.

**ADVANCEMENT OPPORTUNITIES**

Advancement opportunities are limited as this is an assistant’s position.

**WORKING CONDITIONS**

Hours & days vary with the facility & with whether they are full- or part-time employees. Many have evening & weekend hours. About 30 percent of all physical therapist assistants & aides work part time. In some cases, assistants & aides need to lift patients & therefore need a moderate amount of physical strength. Constant kneeling, stooping, & standing for long periods also are part of the job.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
1,610	2,450

Very fast growth to 2024. Around 130 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$26.52	\$55,200	\$44,100 – 65,900
Kentucky	\$26.15	\$54,400	\$44,300 – 63,200

**LOCATION**

Over a third of all occupations in Bluegrass area; an eighth in Louisville area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Over 52 percent work in ambulatory health care services; 29 percent in hospitals; rest in a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Rehabilitation aides.

**RELATED OCCUPATIONS**

Physical therapists; dental assistants; medical assistants; occupational therapist assistants & aides; pharmacy aides; pharmacy technicians; social & human service assistants.

**JOB DESCRIPTION**

Assist dentist, set up patient & equipment, & keep records.

**EDUCATION**

Moderate-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Instructing; social perceptiveness; coordination; reading comprehension; active listening; speaking.

**ABILITIES**

Oral & written expression; oral comprehension; near vision; information ordering; speech clarity.

**KNOWLEDGE**

Medicine & dentistry; customer service; English language proficiency; administrative & clerical procedures; chemistry.

**TASKS**

Administer active & passive manual therapeutic exercises, therapeutic massage, & heat, light, sound, water, & electrical modality treatments. Administer traction to relieve neck & back pain. Assist patients to dress, undress, & put on & remove supportive devices, such as braces, splints, & slings. Confer with physical therapy staff & others to discuss & evaluate patient information for planning treatment. Fit patients for orthopedic braces, prostheses, & supportive devices, such as crutches, & train patients in their use. Assist patients as they practice exercises & functional activities. Measure patients' range-of-joint motion, body parts, & vital signs to determine effects of treatments. Monitor operation of equipment & record use of equipment & administration of treatment. Observe patients during treatments to compile & evaluate data on patients' responses & progress, & report to physical therapist.

**WORK ACTIVITIES**

Assist & care for others; develop & build teams; document & record information; communicate with peers, supervisors, & subordinates; obtain information.

**ADVANCEMENT OPPORTUNITIES**

Without further education, advancement opportunities are limited. Can become office managers, dental-assisting instructors, or dental product sales representatives. Can return to school to become dental hygienists.

**WORKING CONDITIONS**

Work in a well-lighted, clean environment, usually near the dental chair. Must wear protective clothing to avoid infectious diseases. Usually a 35- to 40-hour workweek, which may include work on Saturdays or evenings. Maintain contact with others, often in close physical proximity, such as face-to-face discussions.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

2014	2024
4,330	5,230

Very fast growth to 2024. Around 200 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$17.30	\$36,000	\$29,600 – 43,900
Kentucky	\$16.09	\$33,500	\$26,600 – 39,700

**LOCATION**

Nearly a quarter of all openings in the Louisville area; a fifth in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Around 92% work in ambulatory health care services. Those remaining work in several other industries.

**ALTERNATE OCCUPATIONAL TITLES**

Orthodontic assistants.

**RELATED OCCUPATIONS**

Medical assistants; occupational therapist assistants & aides; pharmacy aides; pharmacy technicians; physical therapist assistants & aides.

**JOB DESCRIPTION**

Perform administrative duties under the direction of physician. May include scheduling appointments, maintaining medical records, billing, & coding for insurance purposes. May also include taking & recording vital signs & medical histories, preparing patients for examination, drawing blood, & administering medications as directed by physician.

**EDUCATION**

Moderate-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Service orientation; social perceptiveness; writing; active listening; speaking.

**ABILITIES**

Near vision; oral & written comprehension; arm-hand steadiness; information ordering; control precision; oral expression.

**KNOWLEDGE**

English language proficiency; administrative & clerical procedures; medicine & dentistry; biology.

**TASKS**

Collect blood, tissue or other laboratory specimens, log the specimens, & prepare them for testing. Schedule patients for tests, appointments, and/or admission. Greet & log in patients arriving at office or clinic. Help physicians examine & treat patients, handing them instruments & materials or performing such tasks as giving injections & removing sutures. Interview patients to obtain medical information & measure their vital signs, weight, & height. Inventory medical, lab, & office supplies & equipment. Perform bookkeeping duties, such as handling credit & collections & mailing monthly statements to patients. Perform general office duties such as answering telephones, taking dictation & completing insurance forms. Record patients' medical history, vital statistics & information such as test results in medical records.

**WORK ACTIVITIES**

Assist & care for others; evaluate information to determine compliance with standards; obtain & process information; communicate with peers, supervisors, & subordinates; perform general physical activities.

**ADVANCEMENT OPPORTUNITIES**

May be able to advance to office manager, qualify for administrative support occupations, or teach medical assisting. With additional education, may enter occupations such as nursing & medical technology.

**WORKING CONDITIONS**

Work in well-lighted, clean environments. Constantly interact with other people & may have to handle several responsibilities at once. Work a 40-hour week, though some may work weekends, evenings, & holidays. May be exposed to disease or infection. Must wear protective gear. Responsible for the health & safety of others.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
7,970	10,260

Very fast growth to 2024. Around 350 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$14.71	\$30,600	\$26,100 – 36,800
<b>Kentucky</b>	\$13.63	\$28,400	\$24,300 – 33,400

**LOCATION**

Over a third in Louisville area; nearly a fifth in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Around 84% work in ambulatory health care services. The remainder work in several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Clinical assistant; doctor's assistant.

**RELATED OCCUPATIONS**

Dental assistants; medical records & health information technicians; medical secretaries; occupational therapist assistants & aides; pharmacy aides; physical therapist assistants & aides.

**JOB DESCRIPTION**

Supervise & coordinate activities of members of police force.

**EDUCATION**

Work experience in a related occupation.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Judgment & decision making; active listening; management of personnel resources; critical thinking; speaking.

**ABILITIES**

Oral expression & comprehension; problem sensitivity; inductive & deductive reasoning.

**KNOWLEDGE**

Law & government; public safety & security; education & training; English language proficiency; administration & management.

**TASKS**

Conduct raids & order detention of witnesses & suspects for questioning. Cooperate with court personnel & officials from other law enforcement agencies & testify in court as necessary. Develop, implement & revise departmental policies & procedures. Direct handling of evidence & personal property of prisoners. Direct release or transfer of prisoners. Discipline staff for violation of rules & regulations. Inform personnel of changes in regulations & policies, implications of new or amended laws, & new techniques of police work. Inspect facilities, supplies, vehicles, & equipment to ensure conformance to standards. Investigate & resolve personnel problems within organization & charges of misconduct against staff. Direct the preparation, handling, & maintenance of departmental records. Meet with civic, educational, & community groups. Evaluate the job performance of subordinates, & authorize promotions & transfers. Prepare budgets & manage expenditures of department funds. Prepare news releases & respond to police correspondence. Prepare work schedules & assign duties to subordinates Train staff in proper police work procedures.

**WORK ACTIVITIES**

Make decisions & solve problems; communicate with peers, supervisors, or subordinates; work directly with the public; guide, direct, & motivate subordinates; operate vehicles, mechanized devices, or equipment.

**ADVANCEMENT OPPORTUNITIES**

Those in local law enforcement might move up to the state or even federal level. In addition advancement can come within a particularly force. Some may choose political careers in the future.

**WORKING CONDITIONS**

Most work a 40-hour week but paid overtime is common. Travel is essential & sometimes officers must relocate. Officers of the law may be presented with life-threatening situations & may readily see death. Thus a career in law enforcement can take its toll on one’s personal life.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
1,320	1,510

Slow growth to 2024. Around 70 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$39.47	\$82,100	\$63,000 – 103,800
<b>Kentucky</b>	\$28.76	\$59,800	\$50,000 – 75,600

**LOCATION**

Statewide.

**INDUSTRIES OF EMPLOYMENT**

Around 66% work for local government; 21% for state government; rest in federal government or for educational services.

**ALTERNATE OCCUPATIONAL TITLES**

Chief deputy; shift commander.

**RELATED OCCUPATIONS**

Correctional officers; private detectives & investigators; security guards & gaming surveillance officers.

**JOB DESCRIPTION**

Supervise & coordinate activities of workers engaged in fire fighting & fire prevention & control.

**EDUCATION**

Work experience in a related occupation.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Active listening; service orientation; coordination; instructing; equipment maintenance; critical thinking; judgment & decision making.

**ABILITIES**

Oral expression & comprehension; problem sensitivity; inductive; speech clarity.

**KNOWLEDGE**

Law & government; public safety & security; education & training; English language proficiency; administration & management.

**TASKS**

Appraise damage caused by fires. Communicate fire details using two-way radios. Direct investigations of suspected arsons in wildfires. Educate the public about forest fire prevention. Evaluate size, location, & condition of forest fires in order to dispatch crews & position equipment so fires can be contained effectively. Identify staff training & development needs in order to ensure that appropriate training can be arranged. Inspect all stations, uniforms, equipment, & recreation areas. Maintain fire suppression equipment. Maintain knowledge of forest fire laws & fire prevention techniques & tactics. Monitor fire suppression expenditures. Monitor prescribed burns to ensure that they are conducted safely & effectively. Observe fires & crews from air to determine fire-fighting force requirements & to note changing conditions that will affect fire-fighting efforts. Perform administrative duties. Suggest equipment modifications or new equipment purchases. Recruit fire-fighting personnel. Regulate open burning by issuing burning permits, inspecting problem sites, issuing citations for violations of laws & ordinances. Evaluate employee performance. Serve as working leader of a fire crew.

**WORK ACTIVITIES**

Obtain information; operate vehicles, mechanized devices, or equipment; perform general physical activities; identify objects, actions, & events; monitor processes, materials, or surroundings.

**ADVANCEMENT OPPORTUNITIES**

Those in smaller rural forces might move to larger urban areas with more responsibilities & higher pay.

**WORKING CONDITIONS**

Fire fighters spend much of their time at stations. They are constantly on call. Hours can vary greatly, with perhaps more than 50 a week. The scheduling cycle can vary in many ways. The work can be dangerous with the risk of death.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
1,220	1,400

Average growth to 2024. Around 80 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$34.72	\$72,200	\$55,400 – 92,900
Kentucky	\$21.58	\$44,900	\$31,500 – 62,700

**LOCATION**

Over a quarter of openings in Bluegrass area; another quarter in Louisville area. Those remaining are located statewide.

**INDUSTRIES OF EMPLOYMENT**

Almost 95 percent work for local government. Those remaining work in a select few other industries.

**ALTERNATE OCCUPATIONAL TITLES**

Fire chief; shift commander; fire captain.

**RELATED OCCUPATIONS**

Emergency medical technicians & paramedics; police & detectives.

**JOB DESCRIPTION**

Control & extinguish fires or respond to emergency situations where life, property, or the environment is at risk. Duties may include fire prevention, emergency medical service, hazardous material response, search & rescue, & disaster management.

**EDUCATION**

Long-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Monitoring; critical thinking; equipment selection; judgment & decision making; service orientation; equipment selection & maintenance; operation & control; judgment & decision making; service orientation.

**ABILITIES**

Oral expression & comprehension; spatial orientation; stamina; explosive strength; multilimb coordination; problem sensitivity; static strength.

**KNOWLEDGE**

English language proficiency; public safety & security; transportation; telecommunications; computers & electronics.

**TASKS**

Administer first aid & cardiopulmonary resuscitation to injured persons. Assess fires & situations & report conditions to superiors. Create openings in buildings for ventilation or entrance, using axes, chisels, crowbars, electric saws, or core cutters. Drive & operate fire fighting vehicles & equipment. Inspect fire sites after flames have been extinguished in order to ensure that there is no further danger. Lay hose lines & connect them to water supplies. Move toward the source of a fire using knowledge of types of fires, construction design, building materials, & physical layout of properties. Operate pumps connected to high-pressure hoses. Participate in physical training activities in order to maintain a high level of physical fitness. Position & climb ladders in order to gain access to upper levels of buildings, or to rescue individuals from burning structures. Collaborate with other firefighters as a member of a firefighting crew. Establish water supplies, connect hoses, & direct water onto fires. Extinguish flames & embers to suppress fires, using shovels, or engine- or hand-driven water or chemical pumps. Patrol burned areas after fires to locate & eliminate hot spots that may restart fires.

**WORK ACTIVITIES**

Perform general physical activities; monitor processes, materials, & surroundings; handle & move objects; communicate with peers, supervisors, & subordinates; operate vehicles & equipment.

**ADVANCEMENT OPPORTUNITIES**

Depends upon written examination results, job performance, interviews, & seniority. Many departments now require a Bachelor’s degree.

**WORKING CONDITIONS**

Spend most of time in stations but work outdoors when responding to emergencies. May run the risk of encountering poisonous, flammable, explosive, or radioactive gases & chemicals. Hours are often irregular, mostly coming in bulk. Exposed to cuts, burns, & stings. Must endure extremely hot or cold temperatures.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
3,430	4,030

Average growth to 2024. Around 160 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$22.53	\$46,900	\$32,100 – 63,200
<b>Kentucky</b>	\$15.18	\$31,600	\$23,900 – 38,400

**LOCATION**

Nearly a third of occupations are in Bluegrass area; more than a quarter in Louisville area; a fifth in Northern Kentucky; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Around 93% work for local government. Those remaining work in any of several other industries.

**ALTERNATE OCCUPATIONAL TITLES**

Fire captain; fire chief.

**RELATED OCCUPATIONS**

Emergency medical technicians & paramedics; police & detectives.

**JOB DESCRIPTION**

Maintain order, enforce laws & ordinances, & protect life & property in an assigned patrol district. May patrol a specific area on foot or in a vehicle, direct traffic, issue traffic summonses, investigate accidents, apprehend & arrest suspects, or serve legal processes of courts.

**EDUCATION**

Long-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Operation & control; social perceptiveness; speaking; active listening; critical thinking; judgment & decision making; service orientation.

**ABILITIES**

Far & near vision; oral comprehension & expression; reaction time; spatial orientation; inductive & deductive reasoning; problem sensitivity.

**KNOWLEDGE**

Public safety & security; transportation; law & government; geography; telecommunications; English language proficiency; customer service; psychology.

**TASKS**

Maintain order, respond to emergencies, protect people & property, enforce motor vehicle & criminal laws, & promote good community relations. Arrest suspects & perpetrators of criminal acts. Record facts to prepare reports that document incidents & activities. Review facts of incidents to determine if criminal act or statute violations were involved. Render aid to accident victims & other persons. Testify in court to present evidence or act as witness in traffic & criminal cases. Patrol specific area on foot, horseback, or motorized conveyance, responding promptly to calls for assistance. Monitor, note, report, & investigate suspicious persons & situations, safety hazards, & unusual or illegal activity in patrol area. Investigate traffic accidents & other accidents to determine causes & to determine if a crime has been committed. Serves subpoenas & summonses. Executes arrest warrants, locating & taking persons into custody & issues citations.

**WORK ACTIVITIES**

Obtain, document, & record information; operate vehicles or equipment; communicate with persons outside organization; work directly with the public; resolve conflicts & negotiate with others.

**ADVANCEMENT OPPORTUNITIES**

May continue training through government-sponsored academies.

**WORKING CONDITIONS**

Work can be stressful & dangerous. Usually 40-hour weeks, but paid overtime is common. May work evenings, weekends, or holidays. Career may take toll on private life. Conflict situations are frequent. Deal with unpleasant, angry, & often physically aggressive people. Responsible for the health & safety of others. May spend a lot of time in a vehicle.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
7,390	8,980

Average growth to 2024. Around 400 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$28.04	\$58,300	\$42,900 – 76,200
Kentucky	\$20.29	\$42,200	\$34,400 – 48,800

**LOCATION**

Over a quarter of occupations are in Louisville area; nearly another quarter in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

About 82% work for local government; 14% for state government; the remainder work in several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Sheriff's deputy; investigator; detective; patrolman; patrol officer.

**RELATED OCCUPATIONS**

Correctional officers; private detectives & investigators; security guards & gaming surveillance officers.

**JOB DESCRIPTION**

Guard, patrol, or monitor premises to prevent theft, violence, or infractions of rules.

**EDUCATION**

Short-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Social perceptiveness; speaking; active listening; judgment & decision making; critical thinking.

**ABILITIES**

Problem sensitivity; selective attention; time sharing; oral expression & comprehension night vision.

**KNOWLEDGE**

English language proficiency; public safety & security; law & government; customer service; telecommunications.

**TASKS**

Patrol industrial & commercial premises to prevent & detect signs of intrusion & ensure security of doors, windows, & gates. Answer alarms & investigate disturbances. Call police or fire departments in cases of emergency, such as fire or presence of unauthorized persons. Operate detecting devices to screen individuals & prevent passage of prohibited articles into restricted areas. Answer telephone calls to take messages, answer questions, & provide information during non- business hours or when switchboard is closed. Drive & guard armored vehicle to transport money & valuables to prevent theft & ensure safe delivery. Monitor & adjust controls that regulate building systems, such as air conditioning, furnace, or boiler. Escort or drive motor vehicle to transport individuals to specified locations & to provide personal protection. Write reports of daily activities & irregularities, such as equipment or property damage, theft, presence of unauthorized persons, or unusual occurrences. Inspect & adjust security systems, equipment, & machinery to ensure operational use & to detect evidence of tampering.

**WORK ACTIVITIES**

Perform general physical activities; obtain information; identify objects, actions, & events; operate vehicles & equipment.

**ADVANCEMENT OPPORTUNITIES**

Advancement opportunities are limited. May advance to supervisor or security manager positions or open contract security guard agencies.

**WORKING CONDITIONS**

Work can sometimes be routine, but guards must stay alert. Work a standard forty-hour week, but might sometimes be on call. May work weekends, evenings, & holidays. May work indoors or outdoors. Conflict situations are frequent. Maintain contact with others, including external customers. Responsible for health & safety of others.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
10,870	12,110

Average growth to 2024. Around 360 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$11.84	\$24,600	\$20,400 – 33,000
Kentucky	\$10.28	\$21,400	\$18,100 – 26,400

**LOCATION**

Around two fifths of all openings in Louisville area; a third in Bluegrass area. Those remaining work statewide.

**INDUSTRIES OF EMPLOYMENT**

Around 56% work in administrative & support services. The remaining may work in any of several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Gaming surveillance officers; security officers.

**RELATED OCCUPATIONS**

Police & detectives; private detectives & investigators; correctional officers.

**JOB DESCRIPTION**

Supervise workers engaged in preparing & serving food.

**EDUCATION**

Work experience in a related occupation.

**LOCATION OF TRAINING & EDUCATION**

See *Related Occupations*.

**SKILLS**

Coordination; time management; management of personnel resources; speaking; critical thinking; instructing; judgment & decision making; reading comprehension; social perceptiveness.

**ABILITIES**

Oral & written expression & comprehension; number facility; speech clarity.

**KNOWLEDGE**

Administrative & management principles; customer service; personnel & human resources; English language proficiency; clerical & administrative procedures; education & training; knowledge of food production.

**TASKS**

Assign duties, responsibilities, & work stations to employees in accordance with work requirements. Forecast staff, equipment, & supply requirements based on a master menu. Inspect supplies, equipment, & work areas in order to ensure efficient service & conformance to standards. Observe & evaluate workers & work procedures in order to ensure quality standards & service. Perform personnel actions such as hiring & firing staff, consulting with other managers as necessary. Recommend measures for improving work procedures & worker performance in order to increase service quality & enhance job safety. Resolve customer complaints regarding food service. Train workers in food preparation, & in service, sanitation, & safety procedures. Analyze operational problems, such as theft & wastage, & establish procedures to alleviate these problems. Collaborate with other personnel in order to plan menus, serving arrangements, & related details.

**WORK ACTIVITIES**

Perform general physical activities; obtain information; identify objects, actions, & events; operate vehicles & equipment.

**ADVANCEMENT OPPORTUNITIES**

Advancement opportunities are limited, but may move to larger facilities with a larger number of employees to oversee.

**WORKING CONDITIONS**

Hours will depend on the type of establishment. Weekends, evenings, & holidays are common. Usually work a standard 40-hour workweek. Work indoors. Maintain contact with others, including external customers. Coordinate & lead others. Exposed to minor cuts, bites, stings, or burns.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
16,010	17,930

Slow growth to 2024. Around 670 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$14.59	\$30,300	\$23,400 – 40,500
Kentucky	\$12.26	\$25,500	\$21,400 – 34,000

**LOCATION**

Statewide.

**INDUSTRIES OF EMPLOYMENT**

Around 79% work in food services & drinking places. The remaining occur in several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Restaurant managers; head chefs; kitchen managers.

**RELATED OCCUPATIONS**

Food service managers; farm & home management advisors; dietitians & nutritionists; dietetic technicians; chefs & head cooks.

**JOB DESCRIPTION**

Prepare, season, & cook soups, meats, vegetables, desserts, or other foodstuffs in restaurants. May order supplies, keep records & accounts, price items on menu, or plan menu.

**EDUCATION**

Long-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Equipment selection; monitoring; coordination; active learning; operation & control; quality control analysis; reading comprehension; speaking.

**ABILITIES**

Information ordering; memorization; manual dexterity; wrist-finger speed; written comprehension.

**KNOWLEDGE**

Customer service; mathematics; public safety & security; education & training; food production; personnel & human resources; production & processing.

**TASKS**

Bake breads, rolls, cakes, & pastries. Bake, roast, broil, & steam meats, fish, vegetables, & other foods. Carve & trim meats such as beef, veal, ham, pork, & lamb for hot or cold service, or for sandwiches. Coordinate & supervise work of kitchen staff. Estimate expected food consumption; then requisition or purchase supplies, or procure food from storage. Observe & test foods to determine if they have been cooked sufficiently, using methods such as tasting, smelling, or piercing them with utensils. Portion, arrange, & garnish food, & serve food to waiters or patrons. Prepare relishes & hors d'oeuvres. Regulate temperature of ovens, broilers, grills, & roasters. Season & cook food according to recipes or personal judgment & experience.

**WORK ACTIVITIES**

Monitor & control resources; identify objects, actions, & events; estimate the quantifiable characteristics of products, events, or information; handle or move objects; monitor processes, materials, or surroundings.

**ADVANCEMENT OPPORTUNITIES**

Depends on training, work experience, & ability to perform more responsible & sophisticated tasks. May move into assistant or line cook positions or move up within the kitchen & take on responsibility for training or supervising newer or lesser skilled kitchen staff.

**WORKING CONDITIONS**

Work environment will depend greatly on the kitchen of the facility. Must stand for long periods & often lift heavy items. Hours will also vary greatly. Because of great availability of shifts, such an occupation can be a good source of supplemental income for part-time workers. Responsible for health & safety of others. Spend time making repetitive motions. Exposed to minor cuts, bites, stings, or burns.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
14,930	17,010

Average growth to 2024. Around 600 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$11.11	\$23,100	\$19,600 – 28,100
Kentucky	\$9.31	\$19,400	\$17,400 – 23,600

**LOCATION**

About a quarter of occupations are in Louisville area; a fifth in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Around 94% work in food services & drinking places. Those remaining work in a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Chefs; cooks.

**RELATED OCCUPATIONS**

Food service managers; food processing occupations.

**JOB DESCRIPTION**

Perform a variety of food preparation duties other than cooking, such as preparing cold foods & shellfish, slicing meat, & brewing coffee or tea.

**EDUCATION**

Short-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Active listening; service orientation; equipment selection; social perceptiveness; reading comprehension.

**ABILITIES**

Wrist-finger speed; manual dexterity; information ordering; arm-hand steadiness; memorization; oral comprehension; static strength.

**KNOWLEDGE**

Customer service; chemistry; public safety & security; machines & tools; food production.

**TASKS**

Assist cooks & kitchen staff with various tasks as needed, & provide cooks with needed items. Carry food supplies, equipment, & utensils to & from storage & work areas. Clean work areas, equipment, utensils, dishes, & silverware. Cut, slice and/or grind meat, poultry, & seafood to prepare for cooking. Distribute food to waiters & waitresses to serve to customers. Package take-out foods and/or serve food to customers. Portion & wrap the food, or place it directly on plates for service to patrons. Prepare a variety of foods according to customers' orders or supervisors' instructions, following approved procedures. Prepare & serve a variety of beverages such as coffee, tea, & soft drinks. Stock cupboards & refrigerators, & tend salad bars & buffet meals.

**WORK ACTIVITIES**

Handle & move objects; perform general physical activities; monitor processes, materials, or surroundings; communicate with peers, supervisors, & subordinates; estimate the quantifiable characteristics of products, events, or information.

**ADVANCEMENT OPPORTUNITIES**

Depends on training, work experience, & ability to perform more responsible & sophisticated tasks. May move into assistant or line cook positions or move up within the kitchen & take on responsibility for training or supervising newer or lesser skilled kitchen staff.

**WORKING CONDITIONS**

Work environment will depend greatly on the kitchen of the facility. Must stand for long periods & often lift heavy items. Hours will also vary greatly. Because of great availability of shifts, such an occupation can be a good source of supplemental income for part-time workers. Maintain contact with others, including external customers. Spend time making repetitive motions. Exposed to minor cuts, bites, stings, or burns.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
7,900	9,170

Average growth to 2024. Around 350 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$9.70	\$20,200	\$18,500 – 24,400
<b>Kentucky</b>	\$9.21	\$19,200	\$17,300 – 22,900

**LOCATION**

About a third of occupations are in Louisville area; a sixth in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Around 36% work in food services & drinking places; 29% in food & beverage stores; 18% in nursing & residential care facilities; remainder spread throughout several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Chef; cook; dietary aide; prep cook.

**RELATED OCCUPATIONS**

Food service managers; food processing occupations.

**JOB DESCRIPTION**

Mix & serve drinks to patrons, directly or through wait staff.

**EDUCATION**

Short-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Active listening; service orientation; mathematics; speaking; social perceptiveness.

**ABILITIES**

Information ordering; memorization; manual dexterity; wrist-finger speed; written comprehension.

**KNOWLEDGE**

Customer service; mathematics; sales & marketing; English language proficiency; law & government.

**TASKS**

Mix ingredients, such as liquor, soda, water, sugar, & bitters, in order to prepare cocktails & other drinks. Serve wine, & bottled or draft beer. Collect money for drinks served. Arrange bottles & glasses to make attractive displays. Slice & pit fruit for garnishing drinks. Order or requisition liquors & supplies. Clean glasses, utensils, & bar equipment. Prepare appetizers, such as pickles, cheese, & cold meats. Ask customers who become loud & obnoxious to leave, or physically remove them. Attempt to limit problems & liability related to customers' excessive drinking by taking steps such as persuading customers to stop drinking, or ordering taxis or other transportation for intoxicated patrons.

**WORK ACTIVITIES**

Monitor & control resources; identify objects, actions, & events; estimate the quantifiable characteristics of products, events, or information; handle or move objects; monitor processes, materials, or surroundings.

**ADVANCEMENT OPPORTUNITIES**

Advancement usually limited to finding a job in a busier or more expensive restaurant or bar where prospects for tip earnings are better. Some may open their own businesses.

**WORKING CONDITIONS**

Work indoors mostly. Spend most of a shift on feet. Must also carry heavy objects. Part- & full-time work are both readily available. Maintain contact with others, mostly external customers. Adjust to bright or inadequate lighting. Must deal with unpleasant or angry people. Uncomfortable or distracting noise levels.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
4,440	4,940

Average growth to 2024. Around 220 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$9.39	\$19,500	\$18,200 – 26,300
<b>Kentucky</b>	\$8.68	\$18,100	\$16,700 – 19,400

**LOCATION**

About two fifths of occupations are in Louisville area; one fifth in Northern Kentucky area; around a sixth in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Around 75% work in food services & drinking places; 16% in religious, grantmaking, civic, professional, & similar organizations; the remainder work in several industries.

**RELATED OCCUPATIONS**

Flight attendants, gaming services workers; retail salespersons.

**JOB DESCRIPTION**

Perform duties which combine both food preparation & food service.

**EDUCATION**

Short-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Service orientation; active listening; speaking; writing; mathematics.

**ABILITIES**

Wrist-finger speed; manual dexterity; arm-hand steadiness; information ordering; number facility; oral comprehension.

**KNOWLEDGE**

Customer service; mathematics; sales & marketing; English language proficiency; clerical & administrative procedures.

**TASKS**

Accept payment from customers, & make change as necessary. Cook or reheat food items such as French fries. Distribute food to servers. Notify kitchen personnel of shortages or special orders. Prepare & serve cold drinks, or frozen milk drinks or desserts, using drink-dispensing, milkshake, or frozen custard machines. Prepare simple foods & beverages such as sandwiches, salads, & coffee. Relay food orders to cooks. Request & record customer orders, & compute bills using cash registers, multicounting machines, or pencil & paper. Select food items from serving or storage areas & place them in dishes, on serving trays, or in takeout bags. Serve customers in eating places that specialize in fast service & inexpensive carry-out food.

**WORK ACTIVITIES**

Communicate with persons outside organization; handle & move objects; perform general physical activities; work directly with the public; control machines & processes; obtain information.

**ADVANCEMENT OPPORTUNITIES**

Opportunities for promotion are limited. For waiters & waitresses, advancement usually is limited to finding a job in a busier or more expensive restaurant or bar where prospects for tip earnings are better.

**WORKING CONDITIONS**

Work indoors mostly. Spend most of a shift on feet. May also carry heavy objects. Part- & full-time work are both readily available. Must interact with others, mostly external customers.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

2014	2024
62,120	69,710

Average growth to 2024. Around 2,770 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$9.09	\$18,900	\$17,600 – 20,400
Kentucky	\$8.55	\$17,800	\$16,600 – 19,000

**LOCATION**

Nearly a quarter in Bluegrass area; over a fifth in Louisville area; rest statewide.

**INDUSTRIES OF EMPLOYMENT**

Around 93% work in food services and drinking places. The remaining work in several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Food & beverage serving & related workers; fast food restaurant cashier.

**RELATED OCCUPATIONS**

Flight attendants, gaming services workers; retail salespersons.

**JOB DESCRIPTION**

Serve food to diners at counter or from a steam table.

**EDUCATION**

Short-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Service orientation; active listening; speaking; writing; mathematics; social perceptiveness.

**ABILITIES**

Wrist-finger speed; manual dexterity; arm-hand steadiness; information ordering; number facility; oral comprehension.

**KNOWLEDGE**

Customer service; mathematics; sales & marketing; English language proficiency; clerical & administrative procedures.

**TASKS**

Add relishes & garnishes to food orders, according to instructions. Brew coffee & tea, & fill containers with requested beverages. Deliver orders to kitchens, & pick up & serve food when it is ready. Prepare food such as sandwiches, salads, & ice cream dishes, using standard formulas or following directions. Serve food, beverages, or desserts to customers in such settings as take-out counters of restaurants or lunchrooms, business or industrial establishments, hotel rooms, & cars. Serve salads, vegetables, meat, breads, & cocktails; ladle soups & sauces; portion desserts; & fill beverage cups & glasses. Take customers' orders & write ordered items on tickets, giving ticket stubs to customers when needed to identify filled orders. Wrap menu items for serving or for takeout. Arrange reservations for patrons of dining establishments. Balance receipts & payments in cash registers.

**WORK ACTIVITIES**

Communicate with persons outside organization; handle & move objects; perform general physical activities; work directly with the public; control machines & processes; obtain information; communicate with supervisors, peers, & subordinates.

**ADVANCEMENT OPPORTUNITIES**

Opportunities for promotion are limited. May become managers.

**WORKING CONDITIONS**

Work indoors mostly. Spend most of a shift on feet. May carry heavy objects. Part-time & full-time work are both readily available. Must interact with others, mostly external customers. Important to be accurate. Spend time walking or running.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
3,180	3,450

Slow growth to 2024. Around 370 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$9.24	\$19,200	\$18,000 – 22,000
<b>Kentucky</b>	\$8.74	\$18,200	\$16,800 – 19,700

**LOCATION**

Over a third of all openings in Louisville area; a fifth in Bluegrass area. Others are located statewide.

**INDUSTRIES OF EMPLOYMENT**

Around 65% work in food services and drinking places; 11% work in motion picture and sound recording industries. Those remaining work in a variety of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Cashiers; servers.

**RELATED OCCUPATIONS**

Flight attendants, gaming services workers; retail salespersons.

**JOB DESCRIPTION**

Take orders & serve food & beverages to patrons at tables in dining establishment.

**EDUCATION**

Short-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Service orientation; active listening; speaking; social perceptiveness; writing.

**ABILITIES**

Oral expression & comprehension; manual dexterity; memorization; speech clarity.

**KNOWLEDGE**

Customer service; mathematics; English language proficiency; sales & marketing; psychology.

**TASKS**

Check patrons' identification in order to ensure that they meet minimum age requirements for consumption of alcoholic beverages. Check with customers to ensure that they are enjoying their meals & take action to correct any problems. Escort customers to their tables. Explain how various menu items are prepared, describing ingredients & cooking methods. Inform customers of daily specials. Prepare checks that itemize & total meal costs & sales taxes. Present menus to patrons & answer questions about menu items, making recommendations upon request. Remove dishes & glasses from tables or counters, & take them to kitchen for cleaning. Serve food and/or beverages to patrons; prepare & serve specialty dishes at tables as required. Stock service areas with supplies such as coffee, food, tableware, & linens.

**WORK ACTIVITIES**

Work directly with the public; maintain interpersonal relationships; handle or move objects; perform general physical activities; communicate with persons outside organization.

**ADVANCEMENT OPPORTUNITIES**

Opportunities for promotion are limited. May find a job in a busier or more expensive restaurant or bar where prospects for tip earnings are better.

**WORKING CONDITIONS**

Work indoors mostly. Spend most of a shift on feet. Must also carry heavy objects. Part-time & full-time work are both readily available. Maintain contact with others, mostly external customers. Important to be accurate. Spend time walking or running.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
30,160	30,780

Fast growth to 2024. Around 1,510 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$9.25	\$19,200	\$17,900 – 24,200
<b>Kentucky</b>	\$8.70	\$18,100	\$16,800 – 19,500

**LOCATION**

Over a third of occupations are in Louisville areas; a quarter in Bluegrass area; a sixth in Northern Kentucky area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Around 90% work in food services & drinking places; remainder work in several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Food & beverage serving & related workers.

**RELATED OCCUPATIONS**

Flight attendants, gaming services workers; retail salespersons.

**JOB DESCRIPTION**

Facilitate food service. Clean tables, carry dirty dishes, replace soiled table linens; set tables; replenish supply of clean linens, silverware, glassware, & dishes; supply service bar with food, & serve water, butter, & coffee to patrons.

**EDUCATION**

Short-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Service orientation; social perceptiveness; active listening; coordination; mathematics; speaking.

**ABILITIES**

Time sharing; oral comprehension; manual dexterity; wrist-finger speed; static strength.

**KNOWLEDGE**

Law & government; English language proficiency; customer service; food production; chemistry.

**TASKS**

Perform serving, cleaning, & stocking duties in establishments such as cafeterias or dining rooms in order to facilitate customer service. Clean up spilled food, drink & broken dishes, & remove empty bottles & trash. Carry food, dishes, trays, & silverware from kitchens & supply departments to serving counters. Carry trays from food counters to tables for cafeteria patrons. Fill beverage & ice dispensers. Garnish foods, & position them on tables to make them visible & accessible. Maintain adequate supplies of items such as clean linens, silverware, glassware, dishes, & trays. Mix & prepare flavors for mixed drinks. Replenish supplies of food & equipment at steam tables & service bars. Scrape & stack dirty dishes, & carry dishes & other tableware to kitchens for cleaning.

**WORK ACTIVITIES**

Handle & move objects; monitor processes, materials, or surroundings; work directly with the public; obtain information; identify objects, actions, & events; perform general physical activities.

**ADVANCEMENT OPPORTUNITIES**

Opportunities are limited due to size of most establishments. May in time acquire position as waiter or bartender.

**WORKING CONDITIONS**

Work indoors. Spend time standing, walking, running, & using hands. Hours will depend on the type of establishment. Weekends, evenings, & holidays are common. Many positions are part-time. Work can sometimes be stressful during peak hours. Spend most of a shift on feet, often carrying heavy objects.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
2,340	2,520

Fast growth to 2024. Around 140 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$9.27	\$19,300	\$18,100 – 22,600
<b>Kentucky</b>	\$8.85	\$18,400	\$16,900 – 20,800

**LOCATION**

Over two fifths in Louisville area; a quarter in Northern Kentucky; a fifth in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Almost 87% work in food services & drinking places. The remaining work in several other industries.

**ALTERNATE OCCUPATIONAL TITLES**

Food & beverage serving & related workers.

**RELATED OCCUPATIONS**

Flight attendants; gaming services workers; retail salespersons.

**JOB DESCRIPTION**

Clean dishes, kitchen, food preparation equipment, or utensils.

**EDUCATION**

Short-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Equipment selection & maintenance; service orientation; active listening; coordination; mathematics; operations analysis; reading comprehension.

**ABILITIES**

Information ordering; trunk strength; extent flexibility; manual dexterity; wrist-finger speed.

**KNOWLEDGE**

Customer service; food production; machines & tools; public safety & security; chemistry; English language proficiency.

**TASKS**

Wash dishes, glassware, flatware, pots, and/or pans using dishwashers or by hand. Clean garbage cans with water or steam. Maintain kitchen work areas, equipment, & utensils in clean & orderly condition. Place clean dishes, utensils, & cooking equipment in storage areas. Prepare & package individual place settings. Sort & remove trash, placing it in designated pickup areas. Sweep & scrub floors. Clean & prepare various foods for cooking or serving. Load or unload trucks that deliver or pick up food & supplies. Receive & store supplies.

**WORK ACTIVITIES**

Handle & move objects; monitor processes, materials, or surroundings; control machines & processes; obtain information; perform general physical activities.

**ADVANCEMENT OPPORTUNITIES**

Opportunities are limited due to size of most establishments. May in time acquire alternate positions in food preparation occupations.

**WORKING CONDITIONS**

Work indoors. Spend time standing, walking, running, & using hands. Hours will depend on the type of establishment. Weekends, evenings, & holidays are common. Many positions are part-time.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
4,180	4,040

Slow growth to 2024. Around 180 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$9.30	\$19,300	\$18,200 – 22,100
<b>Kentucky</b>	\$8.80	\$18,300	\$16,900 – 19,900

**LOCATION**

Over a quarter in Louisville area; a six in Bluegrass area; another six in Northern Kentucky area. Others are located statewide.

**INDUSTRIES OF EMPLOYMENT**

Around 85% work in food services & drinking places. The remaining work in several other industries.

**ALTERNATE OCCUPATIONAL TITLES**

Bus person; dining room attendant.

**RELATED OCCUPATIONS**

Flight attendants; gaming services workers; retail salespersons.

**JOB DESCRIPTION**

Welcome patrons, seat them at tables or in lounge, & help ensure quality of facilities & service.

**EDUCATION**

Short-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Service orientation; coordination; mathematics; speaking; management of personnel resources; social perceptiveness; time management.

**ABILITIES**

Oral expression & comprehension; number facility; problem sensitivity; speech clarity.

**KNOWLEDGE**

Customer service; English language proficiency; administration & management principles; mathematics; personnel & human resources.

**TASKS**

Assign patrons to tables suitable for their needs. Direct patrons to coatrooms & waiting areas such as lounges. Greet guests & seat them at tables or in waiting areas. Inform patrons of establishment specialties & features. Inspect dining & serving areas to ensure cleanliness & proper setup. Maintain contact with kitchen staff, management, serving staff, & customers to ensure that dining details are handled properly & customers' concerns are addressed. Provide guests with menus. Receive & record patrons' dining reservations. Supervise & coordinate activities of dining room staff to ensure that patrons receive prompt & courteous service. Hire, train, & supervise food & beverage service staff.

**WORK ACTIVITIES**

Work directly with the public; maintain interpersonal relationships; schedule work & activities; coordinate the work & activities of others; communicate with persons outside organization.

**ADVANCEMENT OPPORTUNITIES**

Opportunities for promotion are limited. May find a job in a busier or more expensive restaurant or bar where prospects for tip earnings are better.

**WORKING CONDITIONS**

Work indoors mostly. Spend time walking or running. Spend most of a shift on feet. May also carry heavy objects. Part-time & full-time work are both readily available. Must interact with others, mostly external customers.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
5,880	6,100

Slow growth to 2024. Around 440 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$9.22	\$19,200	\$17,800 – 22,200
<b>Kentucky</b>	\$8.63	\$18,000	\$16,700 – 19,200

**LOCATION**

A third in Louisville area; a fifth in Bluegrass area. Others are located statewide.

**INDUSTRIES OF EMPLOYMENT**

Approximately 96% work in food services & drinking places. The remaining work in several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Dining room managers.

**RELATED OCCUPATIONS**

Flight attendants; gaming services workers; retail salespersons.

**JOB DESCRIPTION**

Supervise work activities of cleaning personnel in hotels, hospitals, offices, & other establishments.

**EDUCATION**

Work experience in a related occupation.

**LOCATION OF TRAINING & EDUCATION**

See *Related Occupations*.

**SKILLS**

Reading comprehension; active listening; instructing; monitoring; active learning.

**ABILITIES**

Oral & written expression & comprehension; problem sensitivity; speech clarity.

**KNOWLEDGE**

Machines & tools; administration & management; customer & personal service; psychology; public safety & security.

**TASKS**

Advise managers, desk clerks, or admitting personnel of rooms ready for occupancy. Confer with staff in order to resolve performance & personnel problems. Establish & implement operational standards & procedures. Evaluate employee performance, & recommend personnel actions. Inspect the physical condition of facilities in order to determine the type of work required. Inspect work performed to ensure that it meets specifications & established standards. Instruct staff in work policies & procedures, & the use & maintenance of equipment. Keep record of inventory. Investigate complaints about service & equipment. Maintain required records of work hours, budgets, payrolls, & other information. Perform financial tasks such as estimating costs, & preparing & managing budgets. Supervise in-house services. Assist with cleaning duties as necessary. Recommend changes that could improve service & increase efficiency. Arrange for additional maintenance services. Select the most suitable cleaning materials for different types of surfaces.

**WORK ACTIVITIES**

Obtain information; coordinate the activities of others; identify objects, actions, & events; make decisions & solve problems; inspect equipment, structures, or material.

**ADVANCEMENT OPPORTUNITIES**

Supervisors usually move up through the ranks. In some cases, they are required to take some training to improve their housekeeping techniques & procedures & to enhance their supervisory skills.

**WORKING CONDITIONS**

Typically work 40-hour weeks. Many work nights, evenings, & weekends. Work can be indoors or outdoors, in cold or heat. Some tasks might be dirty, unpleasant, or somewhat unsanitary. Spend most of the time on foot & must risk burn or inhalation from chemicals.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

2014	2024
4,290	4,960

Limited growth to 2024. Around 140 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$17.81	\$37,000	\$28,400 – 48,600
Kentucky	\$14.72	\$30,600	\$25,600 – 39,300

**LOCATION**

Over a third of all occupations are in the Louisville area; about an eighth in Bluegrass area; an eighth in Northern Kentucky area. Others work throughout the state.

**INDUSTRIES OF EMPLOYMENT**

Over 30% work in 561 administrative & support services; 19% in educational services; 18% are self-employed; rest in a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Building superintendent; facilities manager; maintenance director; head custodian.

**RELATED OCCUPATIONS**

Pest control workers; general maintenance & repair workers; grounds maintenance workers.

**JOB DESCRIPTION**

Coordinate activities of workers engaged in landscaping or grounds-keeping activities, such as planting & maintaining ornamental trees, shrubs, flowers, & lawns, & applying fertilizers, pesticides, & other chemicals, according to contract specifications. May also coordinate activities of workers engaged in terracing hillsides, building retaining walls, constructing pathways, installing patios, & similar activities in following a landscape design plan.

**EDUCATION**

Work experience in a related occupation.

**LOCATION OF TRAINING & EDUCATION**

See *Related Occupations*.

**SKILLS**

Coordination; management of personnel resources; time management; instructing; speaking.

**ABILITIES**

Oral expression & comprehension; speech clarity; information ordering; visualization.

**KNOWLEDGE**

Biology; machines & tools; personnel & human resources; business & management principles; chemistry.

**TASKS**

Supervise workers who provide groundskeeping services on a contract basis. Investigate customer complaints. Suggest changes in work procedures & orders corrective work done. Spot check completed work to improve quality of service & ensure contract compliance. Schedule work for crew according to weather conditions, availability of equipment, & seasonal limitations. Review contracts to ascertain service, machine, & work force requirements for job. Prepare service cost estimates for customers. Answer customer questions about groundskeeping care requirements. Train workers in various landscaping tasks.

**WORK ACTIVITIES**

Obtain information; coordinate the activities of others; monitor processes, materials, or surroundings; guide direct, & motivate subordinates; schedule work & activities.

**ADVANCEMENT OPPORTUNITIES**

Advancement opportunities are limited, but may move to larger operations with a larger number of employees to oversee.

**WORKING CONDITIONS**

Work mostly outdoors, almost exclusively during summer months & daytime hours. Can work part-time or full-time. Spend majority of time on feet. May be susceptible to minor work-related injuries. Exposed to hot & cold temperatures, hazardous conditions, & contaminants. Must wear protective gear. Spend time walking or running.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

2014	2024
3,620	3,970

Average growth to 2024. Around 100 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$21.15	\$44,000	\$33,900 – 57,200
Kentucky	\$18.31	\$38,100	\$30,500 – 46,600

**LOCATION**

Over a fifth of all occupations are in the Bluegrass area; nearly a fifth in Louisville area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Around 46% are self-employed; 29% work in administrative & support services; those remaining work in several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Grounds foreman; grounds crew supervisor; landscape manager.

**RELATED OCCUPATIONS**

Janitorial supervisors; recreation workers; housekeeping supervisors; lodging managers; managers of horticultural workers; managers of logging workers.

**JOB DESCRIPTION**

Keep buildings in clean & orderly condition. Perform heavy cleaning duties, such as cleaning floors, shampooing rugs, washing walls & glass, & removing rubbish. Duties may include tending furnace & boiler, performing routine maintenance activities, notifying management of need for repairs, & cleaning snow or debris from sidewalk.

**EDUCATION**

Short-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Repairing; troubleshooting; operation & control; equipment selection & maintenance.

**ABILITIES**

Static strength; manual dexterity; multilimb coordination; stamina; trunk strength.

**KNOWLEDGE**

Chemistry; customer service; construction; mathematics; machines & tools.

**TASKS**

Clean building floors by sweeping, mopping, scrubbing, or vacuuming them. Gather & empty trash. Service, clean, & supply restrooms. Clean & polish furniture & fixtures. Clean windows, glass partitions, & mirrors, using soapy water or other cleaners, sponges, & squeegees. Dust furniture, walls, machines, & equipment. Make adjustments & minor repairs to heating, cooling, ventilating, plumbing, & electrical systems. Mix water & detergents or acids in containers to prepare cleaning solutions, according to specifications. Steam-clean or shampoo carpets. Strip, seal, finish, & polish floors.

**WORK ACTIVITIES**

Handle & move objects; perform general physical activities; repair & maintain mechanical equipment; operate vehicles or equipment; control machines & processes.

**ADVANCEMENT OPPORTUNITIES**

Usually limited in organizations where there is only one maintenance worker. Where there is a large staff, can be promoted to supervisor & to area supervisor or manager.

**WORKING CONDITIONS**

Work indoors mostly. Often work in evenings. Can work part-time or full-time. Spend majority of time on feet. May be susceptible to minor work-related injuries. Exposed to hot & cold temperatures, hazardous conditions, & contaminants. Must wear protective gear. Spend time walking or running.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
21,330	23,880

Average growth to 2024. Around 680 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$11.27	\$23,400	\$19,300 – 30,600
<b>Kentucky</b>	\$10.25	\$18,100	\$18,100 – 26,600

**LOCATION**

Over a quarter in Louisville area; nearly a fifth in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Roughly 30% work in administrative & support services; 28% in educational services; the remainder are spread throughout a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Building cleaning workers.

**RELATED OCCUPATIONS**

Pest control workers; industrial machinery installation, repair, & maintenance workers; grounds maintenance workers.

**JOB DESCRIPTION**

Perform any combination of light cleaning duties to maintain private households or commercial establishments, such as hotels, restaurants, & hospitals, in a clean & orderly manner. Duties include making beds, replenishing linens, cleaning rooms & halls, & vacuuming.

**EDUCATION**

Short-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Service orientation; active listening; equipment selection & maintenance; management of material resources.

**ABILITIES**

Trunk & static strength; stamina; wrist-finger speed; manual dexterity; problem sensitivity.

**KNOWLEDGE**

Customer service; chemistry; machines & tools; public safety & security; design; geography; mathematics; physics; transportation.

**TASKS**

Clean rooms, hallways, lobbies, lounges, restrooms, corridors, elevators, stairways, locker rooms & other work areas so that health standards are met. Clean rugs, carpets, upholstered furniture, and/or draperies, using vacuum cleaners and/or shampooers. Empty wastebaskets, empty & clean ashtrays, & transport other trash & waste to disposal areas. Sweep, scrub, wax, and/or polish floors, using brooms, mops, and/or powered scrubbing & waxing machines. Dust & polish furniture & equipment. Keep storage areas & carts stocked, clean, & tidy. Polish silver accessories & metalwork such as fixtures & fittings. Remove debris from driveways, garages, & swimming pool areas. Replace light bulbs. Replenish supplies such as drinking glasses, linens, writing supplies, & bathroom items.

**WORK ACTIVITIES**

Handle & move objects; perform general physical activities; control machines & processes; estimate the quantifiable characteristics of products, events, & information; inspect equipment, structures, & material.

**ADVANCEMENT OPPORTUNITIES**

Advancement opportunities usually are limited for sole maintenance workers. Where there is a large maintenance staff, however, cleaning workers can be promoted to supervisor & to area supervisor or manager.

**WORKING CONDITIONS**

Work indoors. Spend time standing, walking, running, kneeling, crouching, stooping, crawling, & making repetitive motions. Work is almost exclusively confined to summer months & daytime hours. Can work part time or full time. May be susceptible to minor work-related injuries.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
19,240	23,070

Fast growth to 2024. Around 840 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$9.97	\$20,700	\$18,400 – 25,100
<b>Kentucky</b>	\$9.04	\$18,800	\$17,100 – 22,300

**LOCATION**

Over a quarter in Louisville area; around an eighth in Bluegrass areas; others statewide.

**INDUSTRIES OF EMPLOYMENT**

About 33% work in traveler accommodation; 19% in general medical & services hospitals; 11% in nursing care facilities; 10% in services to buildings & dwellings. The remaining work in any of several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Building cleaning workers; housekeepers.

**RELATED OCCUPATIONS**

Pest control workers; industrial machinery installation, repair, & maintenance workers; grounds maintenance workers.

## JOB DESCRIPTION

Landscaping or maintain grounds of property using hand or power tools or equipment. Workers typically perform a variety of tasks, which may include any combination of the following: sod laying, mowing, trimming, planting, watering, fertilizing, digging, raking, sprinkler installation, & installation of mortarless segmental concrete masonry wall units.

## EDUCATION

Short-term on-the-job training.

## LOCATION OF TRAINING & EDUCATION

See *Industries of Employment*.

## SKILLS

Equipment selection & maintenance; installation; service orientation; operation & control.

## ABILITIES

Static, dynamic, & trunk strength; manual dexterity; stamina.

## KNOWLEDGE

Chemistry; machines & tools; building & construction; biology; physics.

## TASKS

Care for established lawns by mulching, aerating, weeding, grubbing & removing thatch, & trimming & edging around flower beds, walks, & walls. Mix & spray or spread fertilizers, herbicides, or insecticides onto grass, shrubs, & trees, using hand or automatic sprayers or spreaders. Mow & edge lawns, using power mowers & edgers. Plant seeds, bulbs, foliage, flowering plants, grass, ground covers, trees, & shrubs, & apply mulch for protection, using gardening tools. Attach wires from planted trees to support stakes. Decorate gardens with stones & plants. Follow planned landscaping designs to determine where to lay sod, sow grass, or plant flowers & foliage. Gather & remove litter. Haul or spread topsoil, & spread straw over seeded soil to hold soil in place. Maintain irrigation systems, including winterizing the systems & starting them up in spring.

## WORK ACTIVITIES

Perform general physical activities; handle & move objects; operate vehicles & equipment; repair & maintain equipment; control machines & processes; obtain information; estimate the quantifiable characteristics of products, events, or information; monitor processes, materials, or surroundings.

## ADVANCEMENT OPPORTUNITIES

May advance to crew leader or other supervisory positions. May require some formal education beyond high school & several years of progressively more responsible experience.

## WORKING CONDITIONS

Work outdoors, often in evenings. Work can be physically demanding. Spend majority of time on feet. May be susceptible to minor work-related injuries. May face time pressure when preparing for events. Exposed to hot & cold temperatures, hazardous conditions, & contaminants. Must wear protective gear. Spend time walking, running, standing, kneeling, & making repetitive motions.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
12,420	13,730

Very fast growth to 2024. Around 360 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$12.03	\$25,000	\$20,800 – 31,400
Kentucky	\$11.22	\$23,300	\$19,600 – 28,300

## LOCATION

More than a fifth of occupations are in Louisville area; nearly a fifth in Bluegrass area; others statewide.

## INDUSTRIES OF EMPLOYMENT

Around 32% work in administrative & support services; 23% are self-employed; remainder work in a number of industries.

## ALTERNATE OCCUPATIONAL TITLES

Grounds maintenance workers.

## RELATED OCCUPATIONS

Agricultural workers; farmers, ranchers, & agricultural managers; forest, conservation, & logging workers; landscape architects; biological scientists.

**JOB DESCRIPTION**

Supervise & coordinate activities of personal service workers, such as supervisors of flight attendants, hairdressers, or caddies.

**EDUCATION**

Work experience in a related occupation.

**LOCATION OF TRAINING & EDUCATION**

See *Related Occupations*.

**SKILLS**

Coordination; time management; management of personnel resources; instructing; service orientation.

**ABILITIES**

Oral expression & comprehension; near vision; information ordering; deductive reasoning; perceptual speed; problem sensitivity; speech clarity; time sharing.

**KNOWLEDGE**

Business & management principles; customer service; English language proficiency; personnel & human resources; education & training.

**TASKS**

Coordinate activities of workers engaged in lodging & personal services. Evaluate workers' appearance & performance to ensure quality service & compliance with specifications. Train workers in proper operational procedures & functions, & explain company policy. Analyze & record personnel & operational data & write activity reports. Collaborate with personnel to plan & develop programs of events, schedules of activities, & menus. Resolve customer complaints regarding worker performance & services rendered. Assign work schedules, following work requirements, to ensure quality & timely delivery of services. Inspect work areas & operating equipment to ensure conformance to established standards. Furnish customers with information on events & activities. Inform workers about interests of specific groups.

**WORK ACTIVITIES**

Coordinate the work & activities of others; communicate with peers, supervisors, & subordinates; obtain information; organize, plan, & prioritize work.

**ADVANCEMENT OPPORTUNITIES**

Advancement opportunities are limited, but may move to larger operations with a larger number of employees to oversee.

**WORKING CONDITIONS**

Work indoors. Work will involve a variety of hours depending upon the particular occupation. Occupations may be either part-time or full-time. Managers are responsible for the satisfaction of all individuals to whom their workers cater. Maintain contact with others, including external customers. Important to be accurate. Spend time sitting & standing.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

2014	2024
3,840	4,500

Fast growth to 2024. Around 140 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$17.17	\$35,700	\$27,600 – 46,600
Kentucky	\$13.86	\$23,400	\$23,400 – 36,100

**LOCATION**

Nearly a fifth in Louisville area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

About 34% are self-employed; 22% work in social assistance; the remainder work in several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Salon manager; spa director; community life director.

**RELATED OCCUPATIONS**

Meeting & convention planners; opticians, dispensing; housekeeping supervisors; lawn service managers; recreation workers; managers of customer service.

**JOB DESCRIPTION**

Feed, water, groom, bathe, exercise, or otherwise care for pets & other nonfarm animals, such as dogs, cats, ornamental fish or birds, zoo animals, & mice. May keep records of feedings, treatments, & animals received or discharged. May clean, disinfect, & repair cages, pens, or fish tanks.

**EDUCATION**

Short-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Reading comprehension; speaking; active listening; equipment selection; service orientation; writing.

**ABILITIES**

Oral expression & comprehension; problem sensitivity; information ordering; written expression.

**KNOWLEDGE**

Chemistry; machines & tools; building & construction; biology; physics.

**TASKS**

Adjust controls to regulate specified temperature & humidity of animal quarters, nurseries, or exhibit areas. Clean, organize, & disinfect animal quarters. Collect & record information such as weight, size, physical condition, treatments received, medications given, & food intake. Examine & observe animals in order to detect signs of illness, disease, or injury. Exercise animals in order to maintain their physical & mental health. Feed & water animals according to schedules & feeding instructions. Mix food, liquid formulas, medications, or food supplements according to instructions, prescriptions, & knowledge of animal species. Perform animal grooming duties. Provide treatment to sick or injured animals, or contact veterinarians to secure treatment. Administer laboratory tests to experimental animals, & keep records of responses.

**WORK ACTIVITIES**

Perform general physical activities; handle & move objects; obtain, document, & record information; identify objects, actions, & events; monitor processes, materials, or surroundings.

**ADVANCEMENT OPPORTUNITIES**

May advance to supervisory positions.

**WORKING CONDITIONS**

Work can be physically demanding. Spend majority of time on feet. May be susceptible to minor work-related injuries. Any shift is possible. Exposed to weather, hazardous conditions, & contaminants. Must wear protective gear. Uncomfortable or distracting noise levels possible.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
3,540	4,090

Very fast growth to 2024. Around 130 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$10.10	\$21,000	\$18,600 – 25,900
Kentucky	\$9.75	\$20,300	\$17,700 – 25,300

**LOCATION**

Over a third of occupations are in Bluegrass area; more than a quarter in Louisville area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Around 24% work in performing arts, spectator sports, & related industries; 20% are self-employed; those remaining work in a variety of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Veterinary assistants.

**RELATED OCCUPATIONS**

Agricultural technicians; animal breeders; log graders & scalers.

## JOB DESCRIPTION

Perform variety of attending duties at amusement or recreation facility. May schedule use of recreation facilities, maintain & provide equipment to participants of sporting events or recreational pursuits, or operate amusement concessions & rides.

## EDUCATION

Short-term on-the-job training.

## LOCATION OF TRAINING & EDUCATION

See *Industries of Employment*.

## SKILLS

Speaking; service orientation; management of material resources; operation & control; social perceptiveness.

## ABILITIES

Oral expression & comprehension; speech clarity; control precision; rate control.

## KNOWLEDGE

Customer service; sales & marketing; machines & tools; public safety & security; mathematics.

## TASKS

Describe amusement park attractions to patrons in order to entice customers to games & other entertainment. Tend amusement booths in parks, carnivals, or stadiums, performing duties such as conducting games, photographing patrons, & awarding prizes. Direct patrons to rides, seats, or attractions. Fasten safety devices for patrons, or provide them with directions for fastening devices. Maintain inventories of equipment, storing & retrieving items & assembling & disassembling equipment. Ensure adherence to rules & safety procedures, & arrange for the removal of unruly patrons. Explain the use of mechanical riding devices or other automatic equipment in amusement parks, carnivals, or recreation areas. Provide assistance to patrons entering or exiting amusement rides, boats, or ski lifts, or mounting or dismounting animals. Provide information about facilities, entertainment options, & rules & regulations. Rent, sell, or issue sporting equipment & supplies.

## WORK ACTIVITIES

Communicate with persons outside organization; establish & maintain interpersonal relationships; inspect equipment, structures, or material; work directly with the public; control machines & processes.

## ADVANCEMENT OPPORTUNITIES

Advancement opportunities are limited, but may move to larger operations with a larger number of patrons or guests.

## WORKING CONDITIONS

Work will involve a variety of hours depending upon seasonal activity & hours of operation. May be either part-time or full-time. Will likely spend a good portion of time standing & moving about. Distracting noise levels & sounds. Responsible for the health & safety of others. May deal with angry or unruly customers.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
2,950	3,260

Average growth to 2024. Around 160 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$9.27	\$19,300	\$18,000 – 22,800
<b>Kentucky</b>	\$8.61	\$17,900	\$16,600 – 19,200

## LOCATION

Nearly two fifths of occupations are in Louisville area; more than a fifth in Bluegrass area; others statewide.

## INDUSTRIES OF EMPLOYMENT

Around 61% work in other amusement, gambling, and recreation industries; 12% for local government; rest in several industries.

## RELATED OCCUPATIONS

Bartenders; waiters & waitresses; tour guides & escorts; counter & rental clerks; retail salespersons; service station attendants; combined food preparation & serving workers, including fast food.

## JOB DESCRIPTION

Provide beauty services, such as shampooing, cutting, coloring, & styling hair, & massaging & treating scalp. May also apply makeup, dress wigs, perform hair removal, & provide nail & skin care services.

## EDUCATION

Postsecondary vocational award. Licensing through the Kentucky Board of Hairdressers & Cosmetologists.

## LOCATION OF TRAINING & EDUCATION

Statewide community colleges & technical schools.

## SKILLS

Active listening; speaking; time management; coordination; social perceptiveness.

## ABILITIES

Arm-hand steadiness; manual & finger dexterity; oral comprehension & expression; near vision; originality; speech recognition.

## KNOWLEDGE

Chemistry; customer service; English language proficiency; principles of business & management; education & training.

## TASKS

Keep work stations clean & sanitize tools such as scissors & combs. Cut, trim & shape hair or hairpieces, based on customers' instructions, hair type & facial features, using clippers, scissors, trimmers & razors. Analyze patrons' hair & other physical features to determine & recommend beauty treatment or suggest hair styles. Schedule client appointments. Bleach, dye, or tint hair, using applicator or brush. Update & maintain customer information records, such as beauty services provided. Shampoo, rinse, condition & dry hair & scalp or hairpieces with water, liquid soap, or other solutions. Operate cash registers to receive payments from patrons. Demonstrate & sell hair care products & cosmetics. Develop new styles & techniques.

## WORK ACTIVITIES

Perform general physical activities; think creatively; maintain up-to-date knowledge; assist & care for others; obtain information.

## ADVANCEMENT OPPORTUNITIES

Usually takes the form of higher earnings as barbers & cosmetologists gain experience & build a clientele. May open own barber shop or salon.

## WORKING CONDITIONS

Work indoors. Usually a 40-hour week, but longer hours are common. Spend majority of time on feet. May be susceptible to minor skin irritants. Spend most of day standing. Must deal with external customers. Spend time making repetitive motions. Potential exposure to contaminants.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

2014	2024
5,610	6,520

Average fast growth to 2024. Around 240 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$11.38	\$23,700	\$19,200 – 33,200
Kentucky	\$10.37	\$21,600	\$18,100 – 28,400

## LOCATION

Nearly a quarter work in Louisville area; a fifth in Northern Kentucky area; a sixth in Bluegrass area. Those remaining work statewide.

## INDUSTRIES OF EMPLOYMENT

Around about 52% work in personal & laundry services; 41% are self-employed; remainder spread throughout a number of industries.

## ALTERNATE OCCUPATIONAL TITLES

Barbers, cosmetologists, & other personal appearance workers.

## RELATED OCCUPATIONS

Massage therapists; fitness workers.

**JOB DESCRIPTION**

Attend to children at schools, businesses, private households, & child care institutions. Perform a variety of tasks, such as dressing, feeding, bathing, & overseeing play.

**EDUCATION**

Short-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Social perceptiveness; speaking; active listening; service orientation; instructing.

**ABILITIES**

Problem sensitivity; oral comprehension & expression; written comprehension; time sharing; speech clarity.

**KNOWLEDGE**

Psychology; customer service; English language proficiency; principles of business & management; education & training.

**TASKS**

Care for children in institutional setting, such as group homes, nursery schools, private businesses, or schools for the handicapped. Organize & participate in recreational activities, such as games. Discipline children & recommend or initiate other measures to control behavior, such as caring for own clothing & picking up toys & books. Place or hoist children into baths or pools. Instruct children in health & personal habits such as eating, resting, & toilet habits. Assist in preparing food for children & serve meals & refreshments to children & regulate rest periods. Read to children, & teach them simple painting, drawing, handicrafts, & songs. Wheel handicapped children to classes or other areas of facility, secure in equipment, such as chairs & slings. Monitor children on life-support equipment to detect malfunctioning of equipment, & call for medical assistance when needed. Accompany children to & from school, on outings, & to medical appointments.

**WORK ACTIVITIES**

Assist & care for others; perform general physical activities; handle & move objects; monitor processes, materials, & surroundings; communicate with peers, supervisors, & subordinates; identify objects, actions, & events.

**ADVANCEMENT OPPORTUNITIES**

May advance to supervisory or administrative positions in large childcare centers or preschools. May require a bachelor's or master's degree.

**WORKING CONDITIONS**

Hours will vary greatly depending on situations. Work setting will depend on nature of childcare involved. Work can be physically taxing, but also deeply rewarding. May deal with unpleasant or angry people. Turnover in this occupation is frequent.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

2014	2024
22,710	25,480

Very fast growth to 2024. Around 950 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$9.77	\$20,300	\$18,300 – 24,700
Kentucky	\$9.09	\$18,900	\$17,200 – 22,500

**LOCATION**

Nearly a third of occupations in Louisville area; more than a fifth in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Around 43% work in social assistance; 28% are self-employed; the remainder are spread among a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Preschool aide; child caregiver; childcare assistant.

**RELATED OCCUPATIONS**

Teacher assistants; teachers—preschool, kindergarten, elementary, middle, & secondary; teachers—special education.

**JOB DESCRIPTION**

Assist elderly or disabled adults with daily living activities at the person's home or in a daytime non-residential facility. May include keeping house (making beds, doing laundry, washing dishes) & preparing meals. May provide meals & supervised activities at non-residential care facilities.

**EDUCATION**

Short-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Social perceptiveness; speaking; active listening; service orientation; instructing.

**ABILITIES**

Problem sensitivity; fluency of ideas; oral comprehension & expression; written expression; speech clarity.

**KNOWLEDGE**

Medicine & dentistry; customer service; education & training; clerical & administrative procedures.

**TASKS**

Administer bedside & personal care. Care for individuals & families during periods of incapacitation, family disruption or convalescence, providing companionship, personal care & help in adjusting to new lifestyles. Instruct & advise clients on issues such as household cleanliness, utilities, hygiene, nutrition & infant care. Participate in case reviews. Perform health care related tasks, such as monitoring vital signs & medication, under the direction of registered nurses & physiotherapists. Perform housekeeping duties, such as cooking, cleaning, washing clothes & dishes. Plan, shop for, & prepare meals, including special diets, & assist families in planning, shopping for, & preparing nutritious meals. Train family members to provide bedside care. Transport clients to locations outside the home, such as to physicians' offices or on outings, using a motor vehicle.

**WORK ACTIVITIES**

Assist & care for others; perform general physical activities; handle & move objects; train & teach others; maintain interpersonal relationships.

**ADVANCEMENT OPPORTUNITIES**

Advancement is limited. In some agencies, may start out performing homemaker duties, such as cleaning. With experience & training, may take on personal care duties. Often deal with several customers a day.

**WORKING CONDITIONS**

Work indoors. Hours will depend on the needs of the client. Daily activities & setting may vary. Clients might be angry, abusive, depressed, or otherwise difficult. Spend time standing, sitting, walking, & running.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
11,070	14,020

Very fast growth to 2024. Around 390 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$10.09	\$21,000	\$18,600 – 24,000
Kentucky	\$9.83	\$20,400	\$17,800 – 23,700

**LOCATION**

Nearly a third of occupations are in the Louisville area; a sixth in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Around 47% work in individual & family services; 11% in home health care services; 11% in private households. Those remaining work in a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Caregiver; personal care provider.

**RELATED OCCUPATIONS**

Nursing, psychiatric, & home health aides; occupational therapist assistants & aides; physical therapist assistants & aides.

**JOB DESCRIPTION**

Conduct recreation activities with groups in public, private, or volunteer agencies or recreation facilities. Organize activities, such as arts & crafts, sports, games, music, dramatics, social recreation, camping, & hobbies, taking into account the needs & interests of individual members.

**EDUCATION**

Bachelor's degree.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Coordination; management of personnel resources; service orientation; social perceptiveness; speaking.

**ABILITIES**

Oral expression & comprehension; speech clarity; written expression; fluency of ideas.

**KNOWLEDGE**

Education & training; customer service; psychology; administration & management principles; English language proficiency.

**TASKS**

Ascertain & interpret group interests, evaluate equipment & facilities, & adapt activities to meet participant needs. Complete & maintain time & attendance forms & inventory lists. Enforce rules & regulations of recreational facilities in order to maintain discipline & ensure safety. Explain principles, techniques, & safety procedures to participants in recreational activities, & demonstrate use of materials & equipment. Greet new arrivals to activities, introducing them to other participants, explaining facility rules, & encouraging their participation. Manage the daily operations of recreational facilities. Meet with staff to discuss rules, regulations, & work-related problems. Organize, lead, & promote interest in recreational activities such as arts, crafts, sports, games, camping, & hobbies. Provide for entertainment & set up related decorations & equipment. Schedule maintenance & use of facilities.

**WORK ACTIVITIES**

Coordinate the activities of others; maintain interpersonal relationships; communicate with persons outside organization; think creatively; communicate with supervisors, peers, & subordinates.

**ADVANCEMENT OPPORTUNITIES**

College courses in management, business administration, accounting, & personnel management are helpful for advancement to supervisory or managerial jobs.

**WORKING CONDITIONS**

Work indoors or outdoors, sometimes exposed to weather. Typically work a 40-hour week. May work a variety of shifts depending on hours of operation. Spend a great amount of time outdoors & may be susceptible to minor injuries. Responsible for health & safety of others. Spend time sitting, standing, walking, & running.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
8,210	9,820

Fast growth to 2024. Around 310 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$11.21	\$23,300	\$19,200 – 30,600
Kentucky	\$10.77	\$22,400	\$18,200 – 30,800

**LOCATION**

Nearly a third of occupations are in Louisville area; about a quarter in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Around 28% work for local government; 20% in amusement, gambling, and recreation industries; the remainder work in several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Activities director; activities coordinator.

**RELATED OCCUPATIONS**

Counselors; probation officers & correctional treatment specialists; psychologists; recreational therapists; social workers; athletes, coaches, umpires, & related workers; fitness trainers & aerobics instructors.

**JOB DESCRIPTION**

Coordinate activities for residents of boarding schools, college fraternities or sororities, college dormitories, or similar establishments. Order supplies & determine need for maintenance, repairs, & furnishings. May maintain household records & assign rooms. May refer residents to counseling resources if needed.

**EDUCATION**

Moderate-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Active listening; social perceptiveness; time management; monitoring; speaking.

**ABILITIES**

Oral expression & comprehension; problem sensitivity; speech clarity & recognition.

**KNOWLEDGE**

Psychology; public safety & security; administration & management; customer & personal service; therapy & counseling.

**TASKS**

Supervise students during meals. Administer, coordinate, or recommend disciplinary & corrective actions. Answer telephones, & route calls or deliver messages. Assign rooms to students. Chaperone trips & social functions. Communicate with staff to resolve problems with students. Confer with medical personnel to better understand the backgrounds & needs of individual residents. Counsel students in the handling of problems. Determine the need for facility maintenance & repair, & notify appropriate personnel. Participate in recreational activities. Enforce rules & regulations. Hold regular meetings with each assigned unit. Make regular rounds to ensure that residents & areas are safe & secure. Mediate interpersonal problems between residents. Observe students to report unusual behavior. Provide emergency first aid & summon medical assistance when necessary. Provide transportation for expeditions outside facility. Sort & distribute mail. Supervise students' housekeeping work to ensure that it is done properly.

**WORK ACTIVITIES**

Communicate with supervisors, peers, or subordinates; establish & maintain interpersonal relationships; obtain information; make decisions & solve problems.

**ADVANCEMENT OPPORTUNITIES**

Further education can pave the way to supervisory or managerial jobs.

**WORKING CONDITIONS**

Work mostly indoors. May be either part-time or full-time. May sometimes deal with disputes or unruly situations. Can be stressful to deal with the problems & issues of a group of youths.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
3,410	4,650

Very fast growth to 2024. Around 230 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$12.01	\$25,000	\$20,500 – 31,200
Kentucky	\$10.31	\$18,400	\$18,400 – 24,500

**LOCATION**

Nearly a fifth of occupations are in Louisville area; another fifth in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Over 41% in residential mental retardation, mental health, & substance abuse facilities; 14% work in other residential care facilities; 12% in community care facilities for the elderly; rest in a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

House parent; hall director.

**RELATED OCCUPATIONS**

Counselors; social workers; athletes, coaches, umpires, & related workers.

**JOB DESCRIPTION**

Sell merchandise, such as furniture, motor vehicles, appliances, or apparel in a retail establishment.

**EDUCATION**

Short-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Active listening; critical thinking; social perceptiveness; speaking; mathematics.

**ABILITIES**

Oral expression & comprehension; speech clarity; speech recognition; trunk strength.

**KNOWLEDGE**

Customer service; business & management principles; mathematics; sales & marketing; education & training.

**TASKS**

Greet customers & ascertain what each customer wants or needs. Open & close cash registers, performing tasks such as counting money, separating charge slips, coupons, & vouchers, balancing cash drawers, & making deposits. Maintain knowledge of current sales & promotions, policies regarding payment & exchanges, & security practices. Compute sales prices, total purchases & receive & process cash or credit payment. Maintain records related to sales. Watch for & recognize security risks & thefts, & know how to prevent or handle these situations. Recommend, select, & help locate or obtain merchandise based on customer needs & desires. Answer questions regarding the store & its merchandise. Describe merchandise & explain use, operation, & care of merchandise to customers. Ticket, arrange & display merchandise to promote sales.

**WORK ACTIVITIES**

Work directly with the public; influence others; obtain information; maintain interpersonal relationships; communicate with peers, supervisors, & subordinates.

**ADVANCEMENT OPPORTUNITIES**

Advancement is limited because owners do most of the managerial work. May be promoted to assistant managers.

**WORKING CONDITIONS**

Usually work in clean, comfortable, well-lighted stores. Hours will be irregular & will depend on peak seasons for retail trade. Maintain contact with others, including external customers, often in close proximity. Can be rewarding for those who like to work with people. Must spend time on the telephone.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

2014	2024
60,940	65,120

Average growth to 2024. Around 2,530 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$10.47	\$21,800	\$18,800 – 28,600
Kentucky	\$9.55	\$19,900	\$17,600 – 26,100

**LOCATION**

About a fifth of all occupations are in the Louisville area; nearly a fifth in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Nearly 26% work in general merchandise stores; 16% in clothing & clothing accessories stores; 10% in building material & garden equipment & supplies dealers; remainder work in several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Sales clerk; merchandise manager; store manager.

**RELATED OCCUPATIONS**

Sales representatives, wholesale & manufacturing; securities, commodities, & financial services sales agents; counter & rental clerks; real estate brokers & sales agents; purchasing managers, buyers, & purchasing agents; insurance sales agents; sales engineers; cashiers.

## JOB DESCRIPTION

Sell life, property, casualty, health, automotive, or other types of insurance. May refer clients to independent brokers, work as independent broker, or be employed by an insurance company.

## EDUCATION

Bachelor's degree.

## LOCATION OF TRAINING & EDUCATION

Statewide colleges & universities.

## SKILLS

Active listening; speaking; time management; reading comprehension; persuasion.

## ABILITIES

Oral & written comprehension & expression; speech clarity & recognition; deductive reasoning.

## KNOWLEDGE

Customer service; sales & marketing; English language proficiency; computers & electronics; business & management principles.

## TASKS

Call on policyholders to explain policy, to analyze insurance program & suggest changes, or to change beneficiaries. Calculate premiums & establish payment method. Customize insurance programs to suit individual customers. Sell various types of insurance policies to businesses & individuals on behalf of insurance companies, including automobile, fire, life, property, medical & dental insurance or specialized policies. Interview prospective clients to obtain data about their financial resources & needs, the physical condition of the person or property to be insured, & to discuss any existing coverage. Seek out new clients & develop clientele by networking to find new customers & generate lists of prospective clients. Promote sale of insurance plans. Contact underwriter & submit forms to obtain binder coverage. Ensure that policy requirements are fulfilled, including any necessary medical examinations & the completion of appropriate forms. Confer with clients to obtain & provide information when claims are made on a policy.

## WORK ACTIVITIES

Obtain information; maintain interpersonal relationships; make decisions & solve problems; process information; interact with computers.

## ADVANCEMENT OPPORTUNITIES

May become a sales manager in a local office or advance to agency superintendent or executive positions. May establish one's own independent agencies or brokerage firms.

## WORKING CONDITIONS

Work out of small offices, but spend most time in the field. May work excessive or evening & weekend hours due to pressing needs & claims. May work up to 60 hours per week. Maintain contact with others, including external customers, often in face-to-face situations. Draft letters & memos & spend time on the telephone. Respond to a certain level of competition.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
5,450	6,030

Very fast growth to 2024. Around 200 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$23.17	\$48,200	\$34,200 – 74,300
Kentucky	\$18.92	\$39,400	\$28,000 – 59,800

## LOCATION

A third of all job openings in Louisville areas; nearly another third in Bluegrass area; others statewide.

## INDUSTRIES OF EMPLOYMENT

Almost 81% work for insurance carriers & related activities; 17% are self-employed. The remaining work in a number of industries.

## ALTERNATE OCCUPATIONAL TITLES

Insurance brokers.

## RELATED OCCUPATIONS

Real estate sales agents & brokers; securities, commodities, & financial services sales agents; financial analysts & personal financial advisors; financial managers; insurance underwriters; claims adjusters, examiners, & investigators; insurance appraisers.

## JOB DESCRIPTION

Buy & sell securities in investment & trading firms, or call upon businesses & individuals to sell financial services. Provide financial services, such as loan, tax, & securities counseling. May advise securities customers about stocks, bonds, & market conditions.

## EDUCATION

Bachelor's degree. Licensing through the Kentucky Office of Financial Institutions.

## LOCATION OF TRAINING & EDUCATION

Statewide colleges & universities.

## SKILLS

Persuasion; judgment & decision making; speaking; systems evaluation & analysis.

## ABILITIES

Oral expression; written comprehension; number facility; deductive reasoning; mathematical reasoning; speech clarity.

## KNOWLEDGE

Sales & marketing; law & government; mathematics; English language proficiency; economics & accounting.

## TASKS

Contact prospective customers in order to present information & explain available services. Develop financial plans based on analysis of clients' financial status, & discuss financial options with clients. Relay buy or sell orders to securities exchanges or to firm trading departments. Analyze market conditions in order to determine optimum times to execute securities transactions. Determine customers' financial services needs, & prepare proposals to sell services that address these needs. Develop prospects from current commercial customers, referral leads, & sales & trade meetings. Prepare forms or agreements to complete sales. Sell services & equipment, such as trusts, investments, & check processing services. Evaluate costs & revenue of agreements in order to determine continued profitability. Make presentations on financial services to groups in order to attract new clients. Review business trends in order to advise customers regarding expected fluctuations.

## WORK ACTIVITIES

Communicate with persons outside organization; influence others; obtain document, & record information; interpret the meaning of information for others; make decisions & solve problems; provide consultation to others.

## ADVANCEMENT OPPORTUNITIES

The principal form of advancement is an increase in the number & size of the accounts handled. May eventually handle very large institutional accounts or become portfolio managers or branch office managers.

## WORKING CONDITIONS

Work in offices, often under stressful conditions. Usually work a 40-hour week, but beginners may work longer hours. Maintain contact with others, including external customers. Spend time standing.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
2,900	3,150

Fast growth to 2024. Around 70 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$34.40	\$71,600	\$40,400 – 135,400
<b>Kentucky</b>	\$22.37	\$46,500	\$29,600 – 92,000

## LOCATION

Almost a third of occupations are in Louisville area; a sixth in Bluegrass area; others statewide.

## INDUSTRIES OF EMPLOYMENT

Approximately 48% work in credit intermediation & related activities; 36% for securities, commodity contracts, & other financial investments & related activities; remainder work in a number of industries.

## ALTERNATE OCCUPATIONAL TITLES

Financial consultant; investment executive; stock broker.

## RELATED OCCUPATIONS

Insurance sales agents, real estate brokers & sales agents; financial analysts & personal financial advisors.

**JOB DESCRIPTION**

Sell goods for wholesalers or manufacturers where technical or scientific knowledge is required in such areas as biology, engineering, chemistry, & electronics, normally obtained from at least two years of post-secondary education.

**EDUCATION**

Moderate-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Speaking; active listening; instructing; operations analysis; persuasion; reading comprehension; science; mathematics; service orientation.

**ABILITIES**

Oral expression & comprehension; number facility; deductive reasoning; mathematical reasoning; speech clarity; information ordering.

**KNOWLEDGE**

English language proficiency; mathematics; economics & accounting; chemistry; sales & marketing.

**TASKS**

Analyze communication needs of customer & consult with staff engineers regarding technical problems. Train establishment personnel in equipment use. Recommend equipment to meet customer requirements. Negotiate terms of sale & services with customer. Sell scientific or technical products. Solicit orders from customers in person or by phone. Demonstrate uses of products. Prepare reports of business transactions. Inform customer of estimated delivery schedule, service contracts, warranty, or other information pertaining to purchased products. Compile lists of prospective customers for use as sales leads. Prepare sales contracts for orders obtained. Consult with customer regarding installation & setup. Quote prices & credit terms. Design & fabricate custom-made products. Evaluate customer needs & emphasize product features based on technical knowledge of product capabilities.

**WORK ACTIVITIES**

Communicate with persons outside organization; influence others; obtain document, & record information; interpret the meaning of information for others; make decisions & solve problems; provide consultation to others.

**ADVANCEMENT OPPORTUNITIES**

Advancement typically involves acquisition of additional clients & responsibilities.

**WORKING CONDITIONS**

Work in comfortable offices, but may travel to meet clients. Usually work a 40-hour workweek, but beginners may work longer hours. Maintain contact with others, including external customers. Spend time standing & sitting.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

2014	2024
3,890	4,480

Fast growth to 2024. Around 140 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$36.63	\$76,200	\$53,400 – 111,500
Kentucky	\$37.83	\$78,700	\$55,600 – 112,100

**LOCATION**

Nearly two fifths of occupations are in Louisville area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Around 38% for wholesale electronic markets & agents & brokers; 22% work for merchant wholesalers, durable goods; about 15% work for merchant wholesalers, nondurable goods; remainder work in a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Order clerks; account managers; marketing representative.

**RELATED OCCUPATIONS**

Insurance sales agents, real estate brokers & sales agents; financial analysts & personal financial advisors.

**JOB DESCRIPTION**

Rent, buy, or sell property for clients. Study property listings, interview prospective clients, accompany clients to property site, discuss conditions of sale, & draw up real estate contracts.

**EDUCATION**

Postsecondary vocational award. Licensing through the Kentucky Real Estate Commission.

**LOCATION OF TRAINING & EDUCATION**

Statewide community colleges & technical schools.

**SKILLS**

Speaking; persuasion; judgment & decision making; active listening; social perceptiveness; reading comprehension.

**ABILITIES**

Oral expression & comprehension; speech clarity; number facility; written comprehension.

**KNOWLEDGE**

Sales & marketing; law & government; business & management principles; economics & accounting; English language proficiency; mathematics.

**TASKS**

Accompany buyers during visits to & inspections of property. Act as an intermediary in negotiations between buyers & sellers, generally representing one or the other. Advise clients on market conditions, prices, mortgages, legal requirements & related matters. Advise sellers on how to make homes more appealing to potential buyers. Answer clients' questions regarding construction work, financing, maintenance, repairs, & appraisals. Arrange for title searches to determine whether clients have clear property titles. Arrange meetings between buyers & sellers when details of transactions need to be negotiated. Compare a property with similar properties that have recently sold in order to determine its competitive market price. Confer with escrow companies, lenders, home inspectors, & pest control operators to ensure that terms & conditions of purchase agreements are met before closing dates.

**WORK ACTIVITIES**

Influence others; maintain interpersonal relationships; obtain information; judge the qualities of things, services, or people; communicate with persons outside organization; work directly with the public.

**ADVANCEMENT OPPORTUNITIES**

May earn higher rates of commission. Can advance to sales manager or general manager, or open individual offices.

**WORKING CONDITIONS**

Typically work indoors, but many may now work from home due to advances in technology. Still, much time is spent on property sites with clients. Work a standard 40-hour week, but hours may be irregular to meet clients' needs. Must maintain contact with customers & others.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
6,920	7,770

Fast growth to 2024. Around 130 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$20.85	\$43,400	\$29,000 – 70,500
<b>Kentucky</b>	\$16.49	\$34,300	\$24,500 – 47,400

**LOCATION**

More than a quarter work in Bluegrass area; a sixth in Louisville area. Those remaining work statewide.

**INDUSTRIES OF EMPLOYMENT**

Nearly 54% are self-employed; about 35% work in real estate. The remainder may work in a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Real estate brokers; realtor; sales agent.

**RELATED OCCUPATIONS**

Insurance sales agents; retail salespersons; sales representatives, wholesale & manufacturing; securities, commodities, & financial services sales agents; property, real estate, & community association managers.

**JOB DESCRIPTION**

Notify customers of delinquent accounts to solicit payment. Duties include receiving payment & posting amount to customer's account; preparing statements to credit department if customer fails to respond; initiating repossession proceedings or service disconnection; keeping records of collection & status of accounts.

**EDUCATION**

Short-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Speaking; active listening; social perceptiveness; persuasion; writing.

**ABILITIES**

Oral expression & comprehension; speech clarity; near vision; problem sensitivity; speech clarity; written comprehension; number facility.

**KNOWLEDGE**

English language proficiency; mathematics; economics & accounting; administrative & clerical procedures; computers & electronics.

**TASKS**

Arrange for debt repayment or establish repayment schedules. Confer with customers to determine reasons for overdue payments & to review the terms of contracts. Locate & monitor overdue accounts, using computers & a variety of automated systems. Notify customers of delinquent accounts in order to solicit payment. Negotiate credit extensions. Notify credit departments, order merchandise repossession or service disconnection, & turn over account records to attorneys when customers fail to respond. Perform various administrative functions for assigned accounts. Persuade customers to pay amounts due on credit accounts, damage claims, or nonpayable checks, or to return merchandise. Receive payments & post amounts paid to customer accounts. Record information about financial status of customers & status of collection efforts.

**WORK ACTIVITIES**

Communicate with persons outside organization; obtain information; work directly with the public; resolve conflicts & negotiate with others; influence others.

**ADVANCEMENT OPPORTUNITIES**

Can advance to management or supervisory positions with a good education. Can open an agency with other experienced collectors.

**WORKING CONDITIONS**

Usually work in comfortable offices at desks. Work a standard 40-hour week which may include evenings, weekends, or holidays. Often wear a headset & spend majority of time on the phone. Maintain contact with others, including external customers. Spend time sitting. Important to be accurate. Frequent conflict situations. May deal with unpleasant or angry people.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

2014	2024
3,200	3,250

Average growth to 2024. Around 80 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$16.56	\$34,400	\$27,700 – 42,800
Kentucky	\$15.77	\$32,800	\$26,500 – 42,000

**LOCATION**

Nearly half of all occupations in Louisville area; over an eighth in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Over 33% work in administrative & support services; 32% work in credit intermediation & related activities. Those remaining work in a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

No alternate titles for this occupation.

**RELATED OCCUPATIONS**

Purchasing agents, except wholesale, retail, & farm products; insurance adjusters, examiners, & investigators; licensing examiners & inspectors; credit checkers; adjustment clerks; order clerks.

**JOB DESCRIPTION**

Interact with customers to provide information in response to inquiries about products & services & to handle & resolve complaints.

**EDUCATION**

Moderate-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Active listening; writing; reading comprehension; speaking; critical thinking; judgment & decision making; service orientation.

**ABILITIES**

Oral & written expression & comprehension; deductive reasoning; near vision; speech clarity; number facility.

**KNOWLEDGE**

English language proficiency; telecommunications; economics & accounting; education & training; customer service; mathematics; sales & marketing.

**TASKS**

Complete contract forms, prepare change of address records, & issue service discontinuance orders, using computers. Confer with customers by telephone or in person in order to provide information about products & services, to take orders or cancel accounts, or to obtain details of complaints. Contact customers in order to respond to inquiries or to notify them of claim investigation results & any planned adjustments. Examine all relevant information in order to assess validity of complaints & to determine possible causes. Refer unresolved customer grievances to designated departments for further investigation. Resolve customer complaints. Check to ensure that appropriate changes were made to resolve customer problems. Prepare invoices for returned goods. Keep records of customer interactions & transactions, recording details of inquiries, complaints, & comments, as well as actions taken.

**WORK ACTIVITIES**

Obtain, document, & record information; work directly with the public; resolve conflicts & negotiate with others; communicate with persons outside organization; identify objects, actions, & events.

**ADVANCEMENT OPPORTUNITIES**

May advance to higher level positions such as sales agent. May move into areas such as product development.

**WORKING CONDITIONS**

Work in clean, well-lit offices. Work a standard 40-hour week which may include evenings, weekends, or holidays. Often sit at a desk with a computer & headset. Maintain contact with others, including external customers. Important to be accurate. May deal with irate customers at times.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
35,240	41,040

Fast growth to 2024. Around 1,450 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$15.25	\$31,700	\$25,000 – 40,800
<b>Kentucky</b>	\$14.00	\$29,100	\$23,300 – 37,100

**LOCATION**

Over a third work in Louisville area; a fifth in Bluegrass area. Those remaining work statewide.

**INDUSTRIES OF EMPLOYMENT**

Around 15% work in administrative & support services; more than 13% work in credit intermediation & related activities; the remainder are spread throughout a number of industries.

**RELATED OCCUPATIONS**

Information & record clerks; financial clerks, such as tellers & new-account clerks; insurance sales agents; securities, commodities, & financial services sales agents; retail salespersons; computer support specialists; gaming services workers.

**JOB DESCRIPTION**

Interview persons by telephone, mail, in person, or by other means for the purpose of completing forms, applications, or questionnaires. Ask specific questions, record answers, & assist persons with completing form. May sort, classify, & file forms.

**EDUCATION**

Short-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Active listening; reading comprehension; writing; social perceptiveness; speaking.

**ABILITIES**

Oral & written comprehension & comprehension; speech clarity.

**KNOWLEDGE**

Administrative & clerical procedures; English language proficiency; computers & electronics; telecommunications; mathematics; personnel & human resources.

**TASKS**

Ask questions to obtain various specified information. Assist individuals in filling out applications or questionnaires. Compile, record & code results & data from interview or survey, using computer or specified form. Contact individuals to be interviewed at home, place of business, or field location, by telephone, mail, or in person. Explain survey objectives & procedures to interviewees, & interpret survey questions to help interviewees' comprehension. Identify & report problems in obtaining valid data. Identify & resolve inconsistencies in interviewees' responses by means of appropriate questioning and/or explanation. Locate & list addresses & households. Review data obtained from interview for completeness & accuracy. Collect & analyze data, such as studying old records, tallying the number of outpatients entering each day or week, or participating in federal, state, or local population surveys as a Census Enumerator.

**WORK ACTIVITIES**

Obtain, document, process & record information; communicate with persons outside organization; interact with computers.

**ADVANCEMENT OPPORTUNITIES**

Advancement to supervisory jobs is very competitive. Will likely depend on an interviewer's success in placing workers. Promotion usually takes the form of more responsibility & higher wages.

**WORKING CONDITIONS**

Work indoors. Work a standard 40-hour week, but overtime may be required. Maintain contact with others, including external customers. Spend time standing & sitting. May travel to various sites for interviews.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
4,910	5,760

Fast growth to 2024. Around 200 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$15.10	\$31,400	\$25,600 – 38,600
<b>Kentucky</b>	\$14.17	\$29,500	\$23,800 – 35,400

**LOCATION**

Approximately a quarter in Louisville area; a fifth in Northern Kentucky area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Over 50% work in hospitals; 20% work for ambulatory health care services. The remaining work in a variety of industries.

**RELATED OCCUPATIONS**

Switchboard operators, including answering service; central office operators; procurement clerks; correspondence clerks; credit checkers; claims takers, unemployment benefits.

**JOB DESCRIPTION**

Compile records, sort & shelve books, & issue & receive library materials such as pictures, cards, slides & microfilm. Locate library materials for loan & replace material in shelving area, stacks, or files according to identification number & title. Register patrons to permit them to borrow books, periodicals, & other library materials.

**EDUCATION**

Short-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Active listening & learning; service orientation; reading comprehension; time management.

**ABILITIES**

Oral & written comprehension; oral expression; near vision; speech; information ordering.

**KNOWLEDGE**

Clerical & administrative procedures; education & training; computers & electronics; English language proficiency; customer & personal service.

**TASKS**

Provide assistance to librarians in the maintenance of collections of books, periodicals, magazines, newspapers, & audiovisual & other materials. Answer inquiries & refer patrons in need to librarians. Assist in the preparation of book displays. Catalog items according to content & purpose. Deliver & retrieve items to & from departments by hand or using push carts. Enter & update patrons' records on computers. Inspect returned books for condition & due-date status, & compute any fees. Instruct patrons on how to use library information systems. Lend & collect materials at circulation desks. Locate library materials for patrons. Maintain records of items received, stored, issued, & returned. Operate & maintain audiovisual equipment. Perform clerical activities. Process new materials. Register new patrons & issue borrower identification cards. Repair books, using mending tape, paste, & brushes. Select substitute titles when requested materials are unavailable following criteria such as age, education, & interests. Send out notices & accept fine payments for lost or overdue books.

**WORK ACTIVITIES**

Interact with computers; communicate with persons outside an organization; obtain information; communicate with supervisors, peers, & subordinates; perform administrative activities. Draft letters & memos.

**ADVANCEMENT OPPORTUNITIES**

Usually advance by assuming added responsibilities.

**WORKING CONDITIONS**

May sit at desks or computers for long periods & can develop headaches or eyestrain. Some duties can be repetitive & boring. May lift & carry books, climb ladders to reach high stacks, & bend low to shelve books on bottom shelves. Hours will depend on library schedule. Many seek part-time employment in libraries.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
1,590	1,820

Average growth to 2024. Around 70 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$11.77	\$24,500	\$19,500 – 31,300
Kentucky	\$10.51	\$21,900	\$18,100 – 27,800

**LOCATION**

A fifth of all occupations located in Bluegrass area; a sixth in Northern Kentucky area; those remaining statewide.

**INDUSTRIES OF EMPLOYMENT**

Over 64% work for local government; 35% for educational services; rest in a variety of industries.

**RELATED OCCUPATIONS**

Bookkeepers; secretaries & administrative assistants; clerks.

**JOB DESCRIPTION**

Answer inquiries & obtain information for general public, customers, visitors, & other interested parties. Provide information regarding activities conducted at establishment; location of departments, offices, & employees within organization.

**EDUCATION**

Short-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Active listening; service orientation; speaking; reading comprehension; writing.

**ABILITIES**

Oral & written comprehension; oral expression; near vision; speech clarity & recognition; information ordering.

**KNOWLEDGE**

Mathematics; English language proficiency; computers & electronics; customer service.

**TASKS**

Operate telephone switchboard to answer & forward calls, providing information, taking messages & scheduling appointments. Receive payment & record receipts for services. Perform administrative support tasks such as proofreading, transcribing handwritten information, & operating calculators or computers to work with pay records, invoices, balance sheets & other documents. Greet persons entering establishment, determine nature & purpose of visit, & direct or escort them. Hear & resolve complaints from customers & public. File & maintain records. Transmit information or documents to customers, using computer, mail, or fax machine. Schedule appointments, & maintain & update appointment calendars. Analyze data to determine answers to questions from customers or members of the public. Provide information about establishment, such as location of departments or offices, employees within the organization, or services provided.

**WORK ACTIVITIES**

Interact with computers; communicate with persons outside an organization; obtain information; communicate with supervisors, peers, & subordinates; perform administrative activities. Draft letters & memos.

**ADVANCEMENT OPPORTUNITIES**

Advancement to supervisory jobs is very competitive. Will likely depend on an interviewer's success in placing workers. Promotion usually takes the form of more responsibility & higher wages.

**WORKING CONDITIONS**

Work indoors. Work a standard 40-hour week, but overtime may be required. May travel to various sites for interviews. Maintain contact with others, often in face-to-face discussions. Must often perform repetitive tasks. Work in a group or team environment.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
18,540	21,980

Fast growth to 2024. Around 840 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$13.12	\$27,300	\$22,100 – 33,400
<b>Kentucky</b>	\$11.90	\$24,800	\$20,800 – 29,800

**LOCATION**

Nearly a third of occupations are in Louisville area; about a fifth in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Over 52% work for ambulatory health care services. The remainder are spread across a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Reception clerks.

**RELATED OCCUPATIONS**

Switchboard operators, including answering service; central office operators; procurement clerks; correspondence clerks; credit checkers; claims takers, unemployment benefits.

**JOB DESCRIPTION**

Receive complaints from public concerning crimes & police emergencies. Broadcast orders to police patrol units in vicinity of complaint to investigate. Operate radio, telephone, or computer equipment to receive reports of fires & medical emergencies & relay information or orders.

**EDUCATION**

Moderate-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Active listening; service orientation; speaking; coordination; judgment & decision making.

**ABILITIES**

Oral comprehension & expression; speech clarity; selective attention; speed of closure.

**KNOWLEDGE**

Computers & electronics; communications & media; English language proficiency; telecommunications; geography.

**TASKS**

Answer routine inquiries, & refer calls not requiring dispatches to appropriate departments & agencies. Dispatch units in accordance with established procedures. Maintain files & information relating to calls & notifications. Monitor various radio frequencies to keep apprised of developing situations. Observe alarm registers & scan maps in order to determine whether a specific emergency is in the dispatch service area. Question callers to determine type of response needed. Read & effectively interpret small-scale maps & information from a computer screen in order to determine locations & provide directions. Receive incoming telephone or alarm system calls regarding emergency & non-emergency police & fire service, emergency ambulance service, information & after hours calls for departments within a city. Relay information & messages to all individuals or groups requiring notification.

**WORK ACTIVITIES**

Communicate with persons outside an organization; communicate with supervisors, peers, or subordinates; obtain information; identify objects, actions, & events; monitor processes, materials, or surroundings.

**ADVANCEMENT OPPORTUNITIES**

Advancement often comes in higher pay, but one may also advance to supervisory positions.

**WORKING CONDITIONS**

Work indoors. Emergency dispatchers most often work at least a 40-hour week. Will likely work weekend, evening, & holiday hours as these positions must always be well-staffed. Must be able to handle conflict situations. May encounter a fair amount of workplace stress & anxiety with the responsibilities of the job. Important to be accurate.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
1,480	1,560

Average growth to 2024. Around 40 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$18.27	\$38,000	\$29,900 – 48,400
Kentucky	\$14.89	\$31,000	\$24,000 – 39,500

**LOCATION**

Around a quarter of occupations in Bluegrass area; a fifth in Louisville area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Approximately 72% work for local government; 12% work for state government; remaining occur in a number of industries.

**RELATED OCCUPATIONS**

Air traffic controllers; communications equipment operators; customer service representatives; reservation & transportation ticket agents & travel clerks.

**JOB DESCRIPTION**

Perform secretarial duties utilizing specific knowledge of medical terminology & hospital, clinic, or laboratory procedures. Duties include scheduling appointments, billing patients, & compiling & recording medical charts, reports, & correspondence.

**EDUCATION**

Postsecondary vocational awards.

**LOCATION OF TRAINING & EDUCATION**

Statewide community colleges & technical schools.

**SKILLS**

Speaking; active listening; reading comprehension; service orientation; social perceptiveness.

**ABILITIES**

Written & oral comprehension; oral expression; speech recognition & clarity.

**KNOWLEDGE**

Customer & personal service; clerical procedures; medicine & dentistry; computer & electronics; English language proficiency.

**TASKS**

Answer telephones, & direct calls to appropriate staff. Schedule & confirm patient diagnostic appointments, surgeries & medical consultations. Greet visitors, ascertain purpose of visit, & direct them to appropriate staff. Operate office equipment such as voice mail messaging systems, & use word processing, spreadsheet, & other software applications to prepare reports, invoices, financial statements, letters, case histories & medical records. Complete insurance & other claim forms. Interview patients to complete documents, case histories, & forms. Receive & route messages & documents such as laboratory results to appropriate staff. Compile & record medical charts, reports, & correspondence. Maintain medical records, technical library & correspondence files. Transmit correspondence & medical records by mail, e-mail, or fax.

**WORK ACTIVITIES**

Obtain information; work directly with the public; assist & care for others; interact with computers; communicate with peers, supervisors, & subordinates.

**ADVANCEMENT OPPORTUNITIES**

Generally advance by being promoted to other administrative positions with more responsibilities. Secretarial & administrative support experience also can lead to jobs such as instructor or sales representative with manufacturers of software or computer equipment.

**WORKING CONDITIONS**

Coordinate or lead others. Work in schools, hospitals, corporate settings, or legal & medical offices. May work part-time or telecommute. Many work in temporary positions. Majority are full-time employees who work a standard 40-hour week. Spend time sitting & standing.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

2014	2024
6,350	8,230

Very fast growth to 2024. Around 260 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$15.89	\$33,100	\$27,100 – 39,500
Kentucky	\$13.70	\$28,500	\$23,700 – 34,100

**LOCATION**

Over a fifth in Bluegrass area; nearly another fifth in Louisville area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Nearly 32% work in hospitals; about 30% work in ambulatory health care services. The remaining are spread throughout a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Stenographers; receptionists; medical office specialists.

**RELATED OCCUPATIONS**

Bookkeeping, accounting, & auditing clerks; receptionists & information clerks; court reporters; human resources assistants, except payroll & timekeeping; computer operators; data entry & information processing workers; paralegals & legal assistants; medical assistants; & medical records & health information technicians.

**JOB DESCRIPTION**

Directly supervise & coordinate activities of construction or extraction workers.

**EDUCATION**

Work experience in a related occupation. Licensing through the Office of Mine Safety & Licensing or the Division of Waste Management.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Coordination; management of personnel resources; time management; active listening; instructing; speaking.

**ABILITIES**

Oral & written expression & comprehension; problem sensitivity.

**KNOWLEDGE**

Business & management principles; building & construction; personnel & human resources; design techniques; English language proficiency; engineering & technology.

**TASKS**

Coordinates activities of construction trades workers. Direct workers engaged in construction activities or extraction of geological materials. Assign work to employees. Confer with staff & worker to ensure production & personnel problems are resolved. Initiate personnel actions, such as promotions, transfers, & hires. Resolve worker problems & recommend motivational plans. Inspects work progress, equipment & construction sites to verify safety & ensure that specifications are met. Estimate material & worker requirements to complete job. Read specifications to determine construction requirements. Plan installation & construction of equipment & structures. Coordinate activities of workers engaged in the extraction of geological materials. Plan extraction process of geological materials. Train workers in construction methods & operation of equipment. Recommend measures to improve production methods & equipment performance to increase efficiency & safety.

**WORK ACTIVITIES**

Evaluate information to determine compliance with standards; obtain information; communicate with supervisors, peers, & subordinates; guide, direct, & motivate subordinates; inspect equipment, structures, & materials; coordinate the work & activities of others.

**ADVANCEMENT OPPORTUNITIES**

Advancement opportunities are limited, but may move to larger operations with a larger number of employees to oversee.

**WORKING CONDITIONS**

Work outdoors, exposed to weather. Pressures due to deadlines, tight schedules, & overtime work. Routine may be interrupted frequently. Will likely be in noisy & dangerous environments & in the presence of heavy equipment & machinery. Maintain contact with others. Important to be accurate.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
10,250	11,580

Fast growth to 2024. Around 210 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$29.84	\$62,100	\$48,900 – 80,100
Kentucky	\$27.46	\$57,100	\$45,200 – 71,900

**LOCATION**

About a fifth of all job openings in Louisville area; a sixth in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

About 28% work for specialty trade contractors; 14% work in construction of buildings; 14% are self-employed; the remaining are spread throughout several industries.

**RELATED OCCUPATIONS**

Geological data technicians; managers of logging workers; managers of landscaping workers; construction managers; electrical drafters; civil engineering technicians; range managers; construction & building inspectors.

## JOB DESCRIPTION

Lay & bind building materials, such as brick, structural tile, concrete block, cinder block, glass block, & terra-cotta block, with mortar & other substances to construct or repair walls, partitions, arches, sewers, & other structures.

## EDUCATION

Long-term on-the-job training.

## LOCATION OF TRAINING & EDUCATION

See *Industries of Employment*.

## SKILLS

Mathematics; equipment selection; monitoring; repairing; installation.

## ABILITIES

Manual dexterity; information ordering; visualization; dynamic strength; extent flexibility.

## KNOWLEDGE

Mathematics; engineering & technology; physics; building & construction; machines & tools.

## TASKS

Apply & smooth mortar or other mixture over work surface. Break or cut bricks, tiles, or blocks to size, using trowel edge, hammer, or power saw. Calculate angles & courses & determine vertical & horizontal alignment of courses. Fasten or fuse brick or other building material to structure with wire clamps, anchor holes, torch, or cement. Interpret blueprints & drawings to determine specifications & to calculate the materials required. Lay & align bricks, blocks, or tiles to build or repair structures or high temperature equipment, such as cupola, kilns, ovens, or furnaces. Measure distance from reference points & mark guidelines to lay out work, using plumb bobs & levels. Mix specified amounts of sand, clay, dirt, or mortar powder with water to form refractory mixtures. Remove burned or damaged brick or mortar.

## WORK ACTIVITIES

Handle & move objects; perform general physical activities; control machines & processes; obtain information; inspect material, equipment, or structures.

## ADVANCEMENT OPPORTUNITIES

Advancement opportunities are limited, but may move to larger operations with a larger number of employees to oversee.

## WORKING CONDITIONS

Usually work outdoors, exposed to the elements. May stand, kneel, & bend for long periods & often have to lift heavy materials. Common hazards include injuries from tools & falls from scaffolds, but these can often be avoided when proper safety equipment is used & safety practices are followed. May be exposed to contaminants.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

2014	2024
1,520	2,080

Very fast growth to 2024. Around 70 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$23.05	\$47,900	\$36,900 – 62,500
Kentucky	\$20.92	\$43,500	\$35,500 – 51,800

## LOCATION

A third of occupations are in Louisville area; others statewide.

## INDUSTRIES OF EMPLOYMENT

About 65% work for specialty trade contractors; 26% are self-employed; rest in several industries.

## RELATED OCCUPATIONS

Carpet, floor, & tile installers & finishers; cement masons, concrete finishers, segmental pavers, & terrazzo workers; plasterers & stucco masons.

## JOB DESCRIPTION

Smooth & finish surfaces of poured concrete, such as floors, walks, sidewalks, roads, or curbs. Align forms for sidewalks, curbs, or gutters; patch voids; use saws to cut expansion joints.

## EDUCATION

Moderate-term on-the-job training.

## LOCATION OF TRAINING & EDUCATION

See *Industries of Employment*.

## SKILLS

Equipment selection; monitoring; mathematics; quality control analysis; operations analysis; operation control.

## ABILITIES

Trunk strength; multilimb coordination; arm-hand steadiness; information ordering; manual dexterity.

## KNOWLEDGE

Chemistry; engineering & technology; building & construction; machines & tools; design; physics.

## TASKS

Apply hardening & sealing compounds to cure surface of concrete, & waterproof or restore surface. Apply muriatic acid to clean surface, & rinse with water. Check the forms that hold the concrete to see that they are properly constructed. Chip, scrape, & grind high spots, ridges, & rough projections to finish concrete, using pneumatic chisels, power grinders, or hand tools. Clean chipped area, using wire brush, & feel & observe surface to determine if it is rough or uneven. Mix cement, sand, & water to produce concrete, grout, or slurry, using hoe, trowel, tamper, scraper, or concrete-mixing machine. Mold expansion joints & edges, using edging tools, jointers, & straightedge. Monitor how the wind, heat, or cold affect the curing of the concrete throughout the entire process. Set the forms that hold concrete to the desired pitch & depth, & align them. Spread, level, & smooth concrete, using rake, shovel, hand or power trowel, hand or power screed, & float.

## WORK ACTIVITIES

Obtain information; handle & move objects; perform general physical activities; inspect equipment, structures, or material; control machines & processes.

## ADVANCEMENT OPPORTUNITIES

May become supervisors for masonry contractors or become owners of businesses employing many workers & spend most of the time as managers rather than practicing a trade. May move to related areas such as construction management, building inspection, or contract estimation.

## WORKING CONDITIONS

Work outdoors, exposed to weather & potentially contaminants. Work is sometimes strenuous. Prolonged standing, climbing, bending, & kneeling often are necessary. Requires continuous physical effort. May be exposed to excessive noise. Must wear protective gear.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
1,860	2,340

Very fast growth to 2024. Around 70 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$18.14	\$37,700	\$30,700 – 49,800
Kentucky	\$16.77	\$34,900	\$28,200 – 42,500

## LOCATION

Nearly a third of all occupations in Louisville area; about a sixth in Bluegrass area; others statewide.

## INDUSTRIES OF EMPLOYMENT

About 66% work for specialty trade contractors; around 12% work for administrative & support services; rest spread among several industries.

## ALTERNATE OCCUPATIONAL TITLES

Cement masons, concrete finishers, segmental pavers, & terrazzo workers.

## RELATED OCCUPATIONS

Brickmasons, blockmasons, & stonemasons; electricians; pipelayers, plumbers, pipefitters, & steamfitters; plasterers & stucco masons.

## JOB DESCRIPTION

Maintain highways, municipal & rural roads, airport runways, & rights-of-way. Duties include patching broken or eroded pavement, repairing guard rails, highway markers, & snow fences. May also mow or clear brush from along road or plow snow from roadway.

## EDUCATION

Moderate-term on-the-job training.

## LOCATION OF TRAINING & EDUCATION

See *Industries of Employment*.

## SKILLS

Installation; equipment selection; mathematics; repairing; operation & control.

## ABILITIES

Trunk strength; multilimb coordination; gross body coordination; reaction time; spatial orientation.

## KNOWLEDGE

Building & construction; geography; public safety & security; machines & tools; mathematics.

## TASKS

Apply oil to road surfaces, using sprayers. Apply poisons along roadsides & in animal burrows to eliminate unwanted roadside vegetation & rodents. Clean & clear debris from culverts, catch basins, drop inlets, ditches, & other drain structures. Drive trucks or tractors with adjustable attachments to sweep debris from paved surfaces, mow grass & weeds, & remove snow & ice. Dump, spread, & tamp asphalt, using pneumatic tampers, to repair joints & patch broken pavement. Erect, install, or repair guardrails, road shoulders, beams, highway markers, warning signals, & highway lighting, using hand tools & power tools. Haul & spread sand, gravel, & clay to fill washouts & repair road shoulders. Inspect markers to verify accurate installation. Measure & mark locations for installation of markers, using tape, string, or chalk. Paint traffic control lines & place pavement traffic messages, by hand or using machines.

## WORK ACTIVITIES

Perform general activities; operate vehicles, mechanized devices, or equipment; handle & move objects; control machines & processes; obtain information.

## ADVANCEMENT OPPORTUNITIES

May advance to supervisory jobs. Others go into the contracting business for themselves.

## WORKING CONDITIONS

Work outdoors, often exposed to hazardous equipment, weather conditions, & distracting or uncomfortable sounds. Usually work a 40-hour week. Must follow safety practices because working around industrial machines can be dangerous. Often subject to the heat of summer. May work during daylight hours or at night in areas that contain much daytime traffic.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

2014	2024
2,230	2,490

Average growth to 2024. Around 90 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$17.75	\$36,900	\$29,400 – 46,200
Kentucky	\$13.30	\$27,700	\$22,700 – 37,700

## LOCATION

About a fifth of occupations are in the Bluegrass area; others statewide.

## INDUSTRIES OF EMPLOYMENT

Around 61% work for local government; 37% for state government; rest in several industries.

## ALTERNATE OCCUPATIONAL TITLES

Road workers; highway workers.

## RELATED OCCUPATIONS

Landscaping & groundskeeping workers; fence erectors; construction laborers; pipelayers; pipelaying fitters.

## JOB DESCRIPTION

Operate self-propelled mining machines that rip coal, metal & nonmetal ores, rock, stone, or sand from the face & load it onto conveyors or into shuttle cars in a continuous operation.

## EDUCATION

Moderate-term on-the-job training. Licensed by Kentucky Environmental & Public Protection Cabinet, Office of Mine Safety & Licensing.

## LOCATION OF TRAINING & EDUCATION

See *Industries of Employment*.

## SKILLS

Equipment maintenance & selection; coordination; repairing; operation & control.

## ABILITIES

Far & night vision; multilimb coordination; depth perception; static strength; control precision; manual dexterity.

## KNOWLEDGE

Machines & tools; engineering & technology; public safety & security; physics; production & processing; transportation.

## TASKS

Determine locations, boundaries, & depths of holes or channels to be cut. Drive machines into position at working faces. Move controls to start & regulate movement of conveyors, & to start & position drill cutters or torches. Move levers to raise & lower hydraulic safety bars that support roofs above machines until other workers complete their framing. Observe & listen to equipment operation to detect binding or stoppage of tools & other equipment malfunctions. Reposition machines to make additional holes or cuts. Start machines to gather coal & convey it to floors or shuttle cars. Guide & assist crews laying track & resetting supports & blocking. Install casings to prevent cave-ins. Repair, oil, & adjust machines, & change cutting teeth, using wrenches.

## WORK ACTIVITIES

Control machines & processes; operate vehicles, mechanized devices, or equipment; repair & maintain mechanical equipment; handle & move objects; monitor processes, materials, or surroundings.

## ADVANCEMENT OPPORTUNITIES

Advancement may come with added responsibilities & experience.

## WORKING CONDITIONS

Work outdoors but sometimes in mines, often exposed to hazardous equipment, weather conditions, & distracting or uncomfortable sounds. Usually work a 40-hour week. Must follow safety practices because working around industrial machines can be dangerous. Risk potential of cave-ins or other hazards when below the surface.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

2014	2024
840	730

Average growth to 2024. Around 20 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$23.37	\$48,600	\$39,400 – 61,000
Kentucky	\$22.81	\$47,400	\$42,600 – 55,100

## LOCATION

A third of occupations are in the Big Sandy area; almost a third in the Kentucky River area; a sixth in Cumberland Valley area; an eighth in Pennyrile area; others statewide.

## INDUSTRIES OF EMPLOYMENT

Nearly 90 percent work in mining (except oil and gas); remaining work in other mining-related industries.

## ALTERNATE OCCUPATIONAL TITLES

Miner.

## RELATED OCCUPATIONS

Roof bolters; mine cutting & channeling machine operators.

**JOB DESCRIPTION**

Supervise & coordinate the activities of mechanics, installers, & repairers.

**EDUCATION**

Work experience in a related occupation.

**LOCATION OF TRAINING & EDUCATION**

See *Related Occupations*.

**SKILLS**

Coordination; management of personnel & financial resources; time management; monitoring; speaking; writing.

**ABILITIES**

Oral & written comprehension; oral expression; information ordering; near vision; deductive reasoning.

**KNOWLEDGE**

Business & management principles; English language proficiency; personnel & human resources; engineering & technology; machines & tools.

**TASKS**

Compile operational & personnel records. Compute estimates & actual costs of factors such as materials, labor, & outside contractors. Conduct or arrange for worker training in safety, repair, & maintenance techniques; operational procedures; & equipment use. Counsel employees about work-related issues & assist employees to correct job-skill deficiencies. Determine schedules, sequences, & assignments for work activities, based on work priority, quantity of equipment & skill of personnel. Develop, implement, & evaluate maintenance policies & procedures. Inspect, test, & measure completed work, using devices such as hand tools & gauges to verify conformance to standards & repair requirements. Interpret specifications, blueprints, & job orders in order to construct templates & lay out reference points for workers. Monitor employees' work levels & review work performance. Patrol & monitor work areas & examine tools & equipment in order to detect unsafe conditions or violations of procedures or safety rules.

**WORK ACTIVITIES**

Obtain information; coordinate the work & activities of others; monitor processes, materials, & surroundings; identify objects, actions, & events; guide, direct, & motivate subordinates.

**ADVANCEMENT OPPORTUNITIES**

May advance to supervisory jobs. Others may go into the contracting business for themselves.

**WORKING CONDITIONS**

Work indoors, sometimes exposed to distracting or unpleasant noise levels. Must wear protective gear. Usually work a 40-hour week. Must follow safety practices as working with industrial machines can be dangerous. Will coordinate & lead others.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
8,470	9,740

Average growth to 2024. Around 300 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$30.29	\$63,000	\$48,500 – 79,700
Kentucky	\$26.92	\$56,000	\$41,500 – 74,700

**LOCATION**

One quarter of all job openings in Louisville area; a fifth in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Spread throughout a variety of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Supervisors.

**RELATED OCCUPATIONS**

Marine engineers; geological data technicians; managers of landscaping workers; managers of logging workers; service unit operators, oil, gas, & mining; ship engineers; power distributors & dispatchers.

## JOB DESCRIPTION

Diagnose, adjust, repair, or overhaul automotive vehicles.

## EDUCATION

Postsecondary vocational award.

## LOCATION OF TRAINING & EDUCATION

Statewide.

## SKILLS

Repairing; troubleshooting; installation; equipment selection; equipment maintenance.

## ABILITIES

Information ordering; problem sensitivity; extent flexibility; manual dexterity; visualization; hearing sensitivity.

## KNOWLEDGE

Machines & tools; physics; engineering & technology; customer service; computers & electronics.

## TASKS

Align vehicles' front ends. Confer with customers to obtain descriptions of vehicle problems, & to discuss work to be performed & future repair requirements. Disassemble units & inspect parts for wear, using micrometers, calipers, & gauges. Examine vehicles to determine extent of damage or malfunctions. Overhaul or replace carburetors, blowers, generators, distributors, starters, & pumps. Perform routine & scheduled maintenance services such as oil changes, lubrications, & tune-ups. Plan work procedures, using charts, technical manuals, & experience. Rebuild parts such as crankshafts & cylinder blocks. Repair & service air conditioning, heating, engine-cooling, & electrical systems. Install & repair air conditioners, & service components such as compressors, condensers, & controls. Rebuild, repair, & test automotive fuel injection units. Remove & replace defective mufflers & tailpipes. Repair & rebuild clutch systems. Repair & replace automobile leaf springs. Repair & replace defective balljoint suspensions, brakeshoes, & wheelbearings. Repair, overhaul, & adjust automobile brake systems.

## WORK ACTIVITIES

Repair & maintain mechanical & electronic equipment; inspect equipment, structures, or material; maintain up-to-date knowledge; control machines & processes; handle & move objects.

## ADVANCEMENT OPPORTUNITIES

May advance to shop supervisor or service manager, become automotive repair service estimators, or open independent repair shops.

## WORKING CONDITIONS

Work indoors. May be exposed to contaminants & uncomfortable or distracting noise levels. Important to be accurate. Must wear protective gear at times. Work a standard 40-hour week, but often will work more. May work evenings & weekends. Although they fix some problems with simple computerized adjustments, technicians frequently work with dirty & greasy parts, & in awkward positions. Often lift heavy parts & tools.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
12,030	13,410

Average growth to 2024. Around 460 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$18.20	\$37,900	\$27,700 – 51,000
Kentucky	\$15.47	\$32,200	\$23,800 – 42,600

## LOCATION

About a fifth of all job openings in Louisville area; a sixth in Bluegrass area; others statewide.

## INDUSTRIES OF EMPLOYMENT

Around 38% work for motor vehicle & parts dealers; 28% work in repair & maintenance; 16% are self-employed. The remaining work in several industries.

## ALTERNATE OCCUPATIONAL TITLES

Garage mechanics.

## RELATED OCCUPATIONS

Automotive body & related repairers; diesel service technicians & mechanics; small engine mechanics.

## JOB DESCRIPTION

Diagnose, adjust, repair, & overhaul trucks, buses, & all types of diesel engines.

## EDUCATION

Postsecondary vocational award.

## LOCATION OF TRAINING & EDUCATION

Statewide community colleges & technical schools.

## SKILLS

Repairing; troubleshooting; installation; equipment selection; equipment maintenance; quality control analysis.

## ABILITIES

Problem & hearing sensitivity; deductive & inductive reasoning; written comprehension.

## KNOWLEDGE

Machines & tools; computers & electronics; design; customer service; engineering & technology; physics; transportation; public safety & security; mathematics.

## TASKS

Adjust & reline brakes, align wheels, tighten bolts & screws, & reassemble equipment. Align front ends & suspension systems. Attach test instruments to equipment, & read dials & gauges in order to diagnose malfunctions. Disassemble & overhaul internal combustion engines, pumps, generators, transmissions, clutches, & differential units. Examine & adjust protective guards, loose bolts, & specified safety devices. Inspect brake systems, steering mechanisms, wheel bearings, & other important parts to ensure that they are in proper operating condition. Inspect, repair, & maintain automotive & mechanical equipment & machinery such as pumps & compressors. Inspect, test, & listen to defective equipment to diagnose malfunctions, using test instruments such as handheld computers, motor analyzers, chassis charts, & pressure gauges. Operate valve-grinding machines to grind & reset valves. Perform routine maintenance such as changing oil, checking batteries, & lubricating equipment & machinery.

## WORK ACTIVITIES

Repair & maintain mechanical equipment; inspect equipment, structures, or material; identify objects, actions, & events; perform general physical activities; handle & move objects.

## ADVANCEMENT OPPORTUNITIES

May advance to shop supervisor or service manager, become sales representatives, or open their own repair shops.

## WORKING CONDITIONS

Usually work indoors, but may make repairs to vehicles on the road. May lift heavy parts & tools, handle greasy & dirty parts, & stand or lie in awkward positions to repair vehicles & equipment. Many employers provide lockers & shower facilities.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
8,140	9,950

Average growth to 2024. Around 320 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$21.40	\$44,500	\$35,300 – 56,000
Kentucky	\$18.65	\$38,800	\$32,100 – 48,900

## LOCATION

Roughly one quarter of all job openings are in Louisville area; a sixth in Bluegrass area; others statewide.

## INDUSTRIES OF EMPLOYMENT

About 23% work for truck transportation; the rest are spread across a number of industries.

## ALTERNATE OCCUPATIONAL TITLES

Diesel service technicians & mechanics.

## RELATED OCCUPATIONS

Aircraft & avionics equipment mechanics & service technicians; automotive service technicians & mechanics; heavy vehicle & mobile equipment service technicians & mechanics; small engine mechanics.

**JOB DESCRIPTION**

Diagnose, adjust, repair, or overhaul mobile mechanical, hydraulic, & pneumatic equipment, such as cranes, bulldozers, graders, & conveyors, used in construction, logging, & surface mining.

**EDUCATION**

Postsecondary vocational award.

**LOCATION OF TRAINING & EDUCATION**

Statewide community colleges & technical schools.

**SKILLS**

Repairing; troubleshooting; installation; equipment selection; equipment maintenance.

**ABILITIES**

Information ordering; manual dexterity; problem sensitivity; near vision; multilimb coordination.

**KNOWLEDGE**

Machines & tools; customer & personal service; mathematics; production & processing; administration & management.

**TASKS**

Test mechanical products & equipment after repair or assembly to ensure proper performance & compliance with manufacturers' specifications. Repair & replace damaged or worn parts. Operate & inspect machines or heavy equipment to diagnose defects. Diagnose faults or malfunctions to determine required repairs, using engine diagnostic equipment such as computerized test equipment & calibration devices. Dismantle & reassemble heavy equipment using hoists & hand tools. Clean, lubricate, & perform other routine maintenance work on equipment & vehicles. Examine parts for damage or excessive wear, using micrometers & gauges. Schedule maintenance for industrial machines & equipment, & keep equipment service records. Read & understand operating manuals, blueprints, & technical drawings. Overhaul & test machines or equipment to ensure operating efficiency.

**WORK ACTIVITIES**

Repair & maintain mechanical equipment; inspect equipment, structures, or material; operate vehicles, mechanized devices, or equipment; make decisions & solve problems; update & use relevant knowledge.

**ADVANCEMENT OPPORTUNITIES**

May advance to field service jobs, wherein they have a greater opportunity to tackle problems independently & earn additional pay. May become shop supervisors or service managers. Some might open their own repair shops or invest in a franchise.

**WORKING CONDITIONS**

Hours can vary depending on season, but most work 40 to 50 hours a week. Most work in clean & well-lit shops but some might be noisy & drafty. Might be required to lift or handle heavy objects. Field technicians might work outside & will earn a higher wage typically.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
3,030	2,550

Average growth to 2024. Around 110 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$23.45	\$48,800	\$39,100 – 59,300
<b>Kentucky</b>	\$21.93	\$45,600	\$38,100 – 54,300

**LOCATION**

Over a quarter of all job openings in Louisville area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

About 29% work for mining (except oil or gas); 18% for merchant wholesalers, durable goods; the remainder work in several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Field service technician.

**RELATED OCCUPATIONS**

Aircraft & avionics equipment mechanics & service technicians; automotive service technicians & mechanics; diesel service technicians & mechanics; industrial machinery mechanics & maintenance workers; small engine mechanics.

## JOB DESCRIPTION

Install or repair heating, central air conditioning, or refrigeration systems, including oil burners, hot-air furnaces, heating stoves, & industrial & commercial refrigeration systems.

## EDUCATION

Long-term on-the-job training. Licensing through the Kentucky Office of Housing, Building, & Construction.

## LOCATION OF TRAINING & EDUCATION

See *Industries of Employment*.

## SKILLS

Repairing; troubleshooting; installation; social perceptiveness; equipment maintenance; active listening.

## ABILITIES

Problem sensitivity; inductive reasoning; extent flexibility; finger & manual dexterity; arm-hand steadiness; trunk strength.

## KNOWLEDGE

Machines & tools; customer service; engineering & technology; design; English language proficiency.

## TASKS

Obtain & maintain required certification(s). Comply with all applicable standards, policies, & procedures, including safety procedures & the maintenance of a clean work area. Repair or replace defective equipment, components, or wiring. Test electrical circuits & components for continuity, using electrical test equipment. Reassemble & test equipment following repairs. Inspect & test system to verify system compliance with plans & specifications & to detect & locate malfunctions. Discuss heating-cooling system malfunctions with users to isolate problems or to verify that malfunctions have been corrected. Record & report all faults, deficiencies, & other unusual occurrences, as well as the time & materials expended on work orders. Test pipe or tubing joints & connections for leaks, using pressure gauge or soap-and-water solution. Adjust system controls to setting recommended by manufacturer to balance system, using hand tools.

## WORK ACTIVITIES

Repair & maintain mechanical equipment; obtain information; operate vehicles, mechanized devices, or equipment; perform general physical activities; handle & move objects.

## ADVANCEMENT OPPORTUNITIES

Advancement usually takes the form of higher wages. Some may advance to positions as supervisor or service manager. Others may move into areas such as sales & marketing.

## WORKING CONDITIONS

Work anywhere there is climate-control equipment. Work a 40-hour week, but may hit peak seasons due to weather. Many now offer contracts to keep year-round business steady. Sometimes exposed to hazardous equipment or contaminants.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
7,270	9,070

Very fast growth to 2024. Around 290 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$21.69	\$45,100	\$34,900 – 58,100
Kentucky	\$18.33	\$30,500	\$30,500 – 48,700

## LOCATION

About a fifth of all job openings in Bluegrass area; others statewide.

## INDUSTRIES OF EMPLOYMENT

Over 70% work for specialty trade contractors; 14% are self-employed; remainder are spread throughout a number of industries.

## RELATED OCCUPATIONS

Boilermakers; electricians; sheet metal workers; pipelayers, plumbers, pipefitters, & steamfitters; home appliance repairers.

**JOB DESCRIPTION**

Perform work involving the skills of two or more maintenance or craft occupations to keep machines, mechanical equipment, or the structure of an establishment in repair.

**EDUCATION**

Moderate-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Installation; equipment maintenance; equipment selection; repairing; troubleshooting.

**ABILITIES**

Information ordering; visualization; control precision; finger & manual dexterity.

**KNOWLEDGE**

Building & construction; machines & tools; engineering & technology; public safety & security; computers & electronics; design; mathematics; physics.

**TASKS**

Adjust functional parts of devices & control instruments. Align & balance new equipment after installation. Assemble, install and/or repair wiring, electrical & electronic components, pipe systems & plumbing, machinery, & equipment. Clean & lubricate shafts, bearings, gears, & other parts of machinery. Diagnose mechanical problems & determine how to correct them, checking blueprints, repair manuals, & parts catalogs as necessary. Dismantle devices to gain access to & remove defective parts, using hoists, cranes, hand tools, & power tools. Inspect, operate, & test machinery & equipment in order to diagnose machine malfunctions. Lay brick to repair & maintain buildings, walls, arches & other structures. Maintain & repair specialized equipment & machinery found in cafeterias, laundries, hospitals, stores, offices, & factories. Paint & repair roofs, windows, doors, floors, woodwork, plaster, drywall, & other parts of building structures.

**WORK ACTIVITIES**

Inspect equipment, material, or structures; repair & maintain mechanical equipment; obtain information; handle & move objects; perform general physical activities.

**ADVANCEMENT OPPORTUNITIES**

May advance to maintenance supervisor or become a craftworker such as an electrician, a heating & air-conditioning mechanic, or a plumber.

**WORKING CONDITIONS**

Work indoors, sometimes exposed to distracting or unpleasant noise levels, hazardous conditions, & minor cuts, stings, or burns. Must wear protective gear. Usually work a 40-hour week but may work evenings, nights, or weekends, or be on call for emergency repairs. May work in awkward or cramped positions. May lift & move heavy objects.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
14,160	16,240

Average growth to 2024. Around 580 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$17.61	\$36,600	\$27,900 – 47,900
Kentucky	\$16.88	\$35,100	\$26,200 – 46,100

**LOCATION**

Statewide.

**INDUSTRIES OF EMPLOYMENT**

Spread throughout a vast number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Repairmen; building mechanic; maintenance technician.

**RELATED OCCUPATIONS**

Carpenters; pipelayers, plumbers, pipefitters, & steamfitters; electricians; heating, air-conditioning, & refrigeration mechanics; coin, vending, & amusement machine servicers & repairers; electrical & electronics installers & repairers; electronic home entertainment equipment installers & repairers; radio & telecommunications equipment installers & repairers.

**JOB DESCRIPTION**

Install or repair cables or wires used in electrical power or distribution systems. May erect poles & light or heavy duty transmission towers.

**EDUCATION**

Long-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Active listening; equipment selection & maintenance; coordination; reading comprehension.

**ABILITIES**

Near vision; oral comprehension; arm-hand steadiness; problem sensitivity; multilimb coordination.

**KNOWLEDGE**

Customer & personal service; machines & tools; building & construction; public safety & security; education & training.

**TASKS**

Adhere to safety practices & procedures, such as checking equipment regularly & erecting barriers around work areas. Open switches or attach grounding devices to remove electrical hazards from disturbed or fallen lines or to facilitate repairs. Climb poles or use truck-mounted buckets to access equipment. Place insulating or fireproofing materials over conductors & joints. Install, maintain, & repair electrical distribution & transmission systems, including conduits, cables, wires, & related equipment, such as transformers, circuit breakers, & switches. Identify defective sectionalizing devices, circuit breakers, fuses, voltage regulators, transformers, switches, relays, or wiring, using wiring diagrams & electrical-testing instruments. Drive vehicles equipped with tools & materials to job sites. Coordinate work assignment preparation & completion with other workers. Inspect & test power lines & auxiliary equipment to locate & identify problems. String wire conductors & cables between poles, towers, trenches, pylons, & buildings, setting lines in place & using winches to adjust tension.

**WORK ACTIVITIES**

Control machines & processes; repair & maintain electronic equipment; obtain information; handle & move objects; perform general physical activities; obtain information; identify objects, actions, & events.

**ADVANCEMENT OPPORTUNITIES**

Advancement is made easier by earning certifications. Promotion to supervisory or training positions also is possible with a college degree.

**WORKING CONDITIONS**

Work outdoors, sometimes exposed to adverse weather conditions. Spend time kneeling, standing, crouching, & bending or twisting the body. Important to be accurate. Usually work a 40-hour week, but might be required to work additional hours in the event of an emergency. Must be able to climb & maintain balance on utility poles & towers. Requires a good amount of travel. May encounter a variety of hazards on job sites.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
2,500	3,040

Fast growth to 2024. Around 150 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$31.95	\$66,500	\$50,200 – 80,400
<b>Kentucky</b>	\$28.42	\$59,100	\$48,600 – 71,200

**LOCATION**

Over a third of all openings in Louisville area; over a quarter in Bluegrass area; rest statewide.

**INDUSTRIES OF EMPLOYMENT**

About 42% work in heavy & civil engineering construction; about 35% for utilities. The remaining work in a variety of other industries.

**ALTERNATE OCCUPATIONAL TITLES**

Linemen; lineworker.

**RELATED OCCUPATIONS**

Radio & telecommunications equipment installers & repairers; broadcast & sound engineering technicians & radio operators; electricians.

## JOB DESCRIPTION

String & repair telephone & television cable, including fiber optics & other equipment for transmitting messages or television programming.

## EDUCATION

Long-term on-the-job training.

## LOCATION OF TRAINING & EDUCATION

See *Industries of Employment*.

## SKILLS

Installation; equipment maintenance; equipment selection; repairing; troubleshooting.

## ABILITIES

Information ordering; near vision; oral expression & comprehension; control precision; manual dexterity; deductive reasoning.

## KNOWLEDGE

Telecommunications; computers & electronics; mathematics; machines & tools; engineering & technology.

## TASKS

Installs terminal boxes & strings lead-in-wires, using electrician's tools. Ascends poles or enters tunnels & sewers to string lines & install terminal boxes, auxiliary equipment & appliances, according to diagrams. Repairs cable system, defective lines, & auxiliary equipment. Pulls lines through ducts by hand or with use of winch. Collects installation fees. Explains cable service to subscriber. Cleans & maintains tools & test equipment. Fills & tamps holes, using cement, earth, & tamping device. Digs holes, using power auger or shovel, & hoists poles upright into holes, using truck-mounted winch. Installs & removes plant equipment, such as callboxes & clocks.

## WORK ACTIVITIES

Control machines & processes; repair & maintain electronic equipment; obtain information; handle & move objects; perform general physical activities; obtain information; identify objects, actions, & events.

## ADVANCEMENT OPPORTUNITIES

May advance to positions stringing cable & performing service installations or to more sophisticated maintenance & repair positions responsible for increasingly larger portions of a network. Promotion to supervisory or training positions also is possible with a college degree.

## WORKING CONDITIONS

Work outdoors, sometimes exposed to adverse weather conditions. Usually work a 40-hour week, but might be required to work additional hours in the event of an emergency. Must be able to climb & maintain balance on utility poles & towers. Requires a good amount of travel. May encounter a variety of hazards on job sites.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

2014	2024
1,480	1,690

Very fast growth to 2024. Around 50 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$25.44	\$52,900	\$36,700 – 71,600
Kentucky	\$21.58	\$44,900	\$33,000 – 57,400

## LOCATION

The majority of all job openings occur in the Louisville area. Others are located statewide.

## INDUSTRIES OF EMPLOYMENT

About 48% work in telecommunications; about 35% for heavy and civil engineering construction; rest occur in a variety of industries.

## ALTERNATE OCCUPATIONAL TITLES

Line installers & repairers.

## RELATED OCCUPATIONS

Radio & telecommunications equipment installers & repairers; broadcast & sound engineering technicians & radio operators; electricians.

**JOB DESCRIPTION**

Test, adjust, or repair biomedical or electromedical equipment.

**EDUCATION**

Associate's degree.

**LOCATION OF TRAINING & EDUCATION**

Statewide colleges & universities.

**SKILLS**

Troubleshooting; equipment maintenance; repairing; critical thinking; reading comprehension.

**ABILITIES**

Problem sensitivity; information ordering; written comprehension; near vision; deductive reasoning.

**KNOWLEDGE**

Computers & electronics; customer & personal service; engineering & technology; machines & tools; English language proficiency.

**TASKS**

Inspect & test malfunctioning medical & related equipment following manufacturers' specifications, using test & analysis instruments. Examine medical equipment & facility's structural environment & check for proper use of equipment, to protect patients & staff from electrical or mechanical hazards & to ensure compliance with safety regulations. Disassemble malfunctioning equipment & remove, repair & replace defective parts such as motors, clutches or transformers. Keep records of maintenance, repair, & required updates of equipment. Perform preventive maintenance or service such as cleaning, lubricating & adjusting equipment. Test & calibrate components & equipment following manufacturers' manuals & troubleshooting techniques, using hand tools, power tools & measuring devices. Explain & demonstrate correct operation & preventive maintenance of medical equipment to personnel. Study technical manuals & attend training sessions provided by equipment manufacturers to maintain current knowledge. Plan & carry out work assignments, using blueprints, schematic drawings, technical manuals, wiring diagrams, & liquid & air flow sheets, following prescribed regulations, directives, & other instructions as required. Solder loose connections, using soldering iron.

**WORK ACTIVITIES**

Inspect equipment, structures, or material; repair & maintain electronic equipment; obtain information; identify objects, actions, & events.

**ADVANCEMENT OPPORTUNITIES**

Opportunities to advance exist but most supervisor positions require a bachelor's degree.

**WORKING CONDITIONS**

Work daytime hours mostly but might be on call or work irregular hours. May work onsite or in well-lighted workshops.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
650	760

Fast growth to 2010. Around 20 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$22.28	\$46,300	\$35,100 – 60,900
<b>Kentucky</b>	\$18.29	\$38,100	\$28,700 – 57,100

**LOCATION**

One two fifths of all job openings in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Around 48 percent work in telecommunications; 35 percent in heavy & civil engineering construction; rest occur in several industries.

**ALTERNATE OCCUPATIONAL TITLES**

Medical equipment technicians.

**RELATED OCCUPATIONS**

Computer, automated teller, & office machine repairers; coin, vending, & amusement machine servicers & repairers; electronic home entertainment equipment installers & repairers; industrial machinery installation, maintenance, & repair workers.

**JOB DESCRIPTION**

All mechanical, installation, & repair workers & helpers not listed separately.

**EDUCATION**

Moderate-term on-the-job training. Licensed by the Kentucky Office of Housing, Building & Construction.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Active listening; equipment selection & maintenance; coordination; reading comprehension.

**ABILITIES**

Near vision; oral comprehension; arm-hand steadiness; problem sensitivity; multilimb coordination.

**KNOWLEDGE**

Customer & personal service; machines & tools; building & construction; public safety & security; education & training.

**TASKS**

As this is a broad occupational category, the specific tasks of the occupation may vary somewhat. General tasks include: Assemble & maintain physical structures, using hand or power tools. Apply protective materials to equipment, components, & parts to prevent defects & corrosion. Tend & observe equipment & machinery to verify efficient & safe operation. Disassemble broken or defective equipment to facilitate repair & reassemble equipment when repairs are complete. Install or replace machinery, equipment, & new or replacement parts & instruments, using hand or power tools. Climb poles or use truck-mounted buckets to access equipment. Drive vehicles equipped with tools & materials to job sites. Coordinate work assignment preparation & completion with other workers.

**WORK ACTIVITIES**

Control machines & processes; repair & maintain electronic equipment; obtain information; handle & move objects; perform general physical activities; obtain information; identify objects, actions, & events.

**ADVANCEMENT OPPORTUNITIES**

Many general maintenance & repair workers in large organizations advance to maintenance supervisor or become craftworkers such as electricians, heating & air-conditioning mechanics, or plumbers. Within small organizations, promotion opportunities may be limited.

**WORKING CONDITIONS**

Work indoors or outdoors, sometimes exposed to adverse weather conditions. Spend time kneeling, standing, crouching, & bending or twisting the body. Important to be accurate. Usually work a 40-hour week, but might be required to work additional hours in the event of an emergency.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
4,140	4,740

Average growth to 2024. Around 120 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$18.14	\$37,700	\$28,400 – 51,300
<b>Kentucky</b>	\$15.69	\$32,600	\$24,300 – 44,400

**LOCATION**

A six of all openings in Louisville area. The remaining work statewide.

**INDUSTRIES OF EMPLOYMENT**

About 22% are self-employed; about 11% work for building equipment contractors; around 8% work for federal government. The remaining work in a variety of other industries.

**RELATED OCCUPATIONS**

Carpenters; pipelayers, plumbers, pipefitters, & steamfitters; electricians; & heating, air-conditioning, & refrigeration mechanics; vending, & amusement machine servicers & repairers; electrical & electronics installers & repairers; electronic home entertainment equipment installers & repairers; & radio & telecommunications equipment installers & repairers.

**JOB DESCRIPTION**

Cut, shape, & assemble wooden articles or set up & operate a variety of woodworking machines, such as power saws, jointers, & mortisers to surface, cut, or shape lumber or to fabricate parts for wood products.

**EDUCATION**

Long-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Active listening; equipment selection; mathematics; instructing; reading comprehension.

**ABILITIES**

Arm-hand steadiness; finger & manual dexterity; reaction time; control precision; trunk strength.

**KNOWLEDGE**

Design; mathematics; building & construction; production & processing; machines & tools.

**TASKS**

Produce & assemble components of articles such as store fixtures, office equipment, cabinets, & high-grade furniture. Verify dimensions, & check the quality & fit of pieces in order to ensure adherence to specifications. Set up & operate machines, including power saws, jointers, mortisers, tenoners, molders, & shapers, to cut, mold, & shape woodstock & wood substitutes. Measure & mark dimensions of parts on paper or lumber stock prior to cutting, following blueprints, to ensure a tight fit & quality product. Reinforce joints with nails or other fasteners to prepare articles for finishing. Attach parts & subassemblies together to form completed units, using glue, dowels, nails, screws, and/or clamps. Establish the specifications of articles to be constructed or repaired, & plan the methods & operations for shaping & assembling parts, based on blueprints, drawings, diagrams, or oral or written instructions. Cut timber to the right size & shape & trim parts of joints to ensure a snug fit, using hand tools such as planes, chisels, or wood files. Match materials for color, grain, & texture, giving attention to knots & other features of the wood. Trim, sand, & scrape surfaces & joints to prepare articles for finishing.

**WORK ACTIVITIES**

Obtain information; control machines & processes; inspect equipment, structures, or material; handle & move objects; monitor processes, material, or surroundings.

**ADVANCEMENT OPPORTUNITIES**

Modelmakers & patternmakers who know how to execute designs on a computer may have the best opportunities for advancement.

**WORKING CONDITIONS**

Hours vary by industry & specific job duties. May encounter excessive noise, dust, & other air pollutants. May risk of injury from contact with rough wood stock, sharp tools, & power equipment. Prolonged standing, lifting, & fitting of heavy objects are common characteristics of the job.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
820	840

Slow growth to 2024. Around 20 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$15.52	\$32,300	\$25,400 – 40,000
<b>Kentucky</b>	\$13.17	\$27,400	\$22,000 – 33,900

**LOCATION**

Statewide.

**INDUSTRIES OF EMPLOYMENT**

About 54% work in furniture & related product manufacturing; 22% are self-employed; remainder occur in a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Framer; cutter; installer.

**RELATED OCCUPATIONS**

Carpenters; sheet metal workers; structural & reinforcing iron & metal workers; machinists; tool & die makers.

## JOB DESCRIPTION

Operate or control an entire process or system of machines, often through the use of control boards, to transfer or treat water or liquid waste.

## EDUCATION

Long-term on-the-job training. Licensed by the Kentucky Environmental & Public Protection Cabinet.

## LOCATION OF TRAINING & EDUCATION

See *Industries of Employment*.

## SKILLS

Reading comprehension; troubleshooting; active listening; operation & control; monitoring.

## ABILITIES

Near vision; problem sensitivity; control precision; deductive reasoning; arm-hand steadiness; information ordering; multilimb coordination; oral comprehension.

## KNOWLEDGE

Mathematics; public safety & security; English language proficiency; biology; chemistry.

## TASKS

Add chemicals such as ammonia, chlorine, or lime to disinfect & deodorize water & other liquids. Operate & adjust controls on equipment to purify & clarify water, process or dispose of sewage, & generate power. Inspect equipment or monitor operating conditions, meters, & gauges to determine load requirements & detect malfunctions. Collect & test water & sewage samples, using test equipment & color analysis standards. Record operational data, personnel attendance, or meter & gauge readings on specified forms. Maintain, repair, & lubricate equipment, using hand tools & power tools. Clean & maintain tanks & filter beds, using hand tools & power tools. Direct & coordinate plant workers engaged in routine operations & maintenance activities.

## WORK ACTIVITIES

Monitor processes, materials, or surroundings; perform general physical activities; inspect equipment, structures, or material; evaluate information to determine compliance with standards; handle & move objects.

## ADVANCEMENT OPPORTUNITIES

May become a superintendent or supervisor with furthered education & experience.

## WORKING CONDITIONS

Work one of three 8-hour shifts, including weekends & holidays, on a rotational basis. May be required to work overtime. Work both indoors & outdoors & may be exposed to noise from machinery & to unpleasant odors. Work is physically demanding & often is performed in unclean locations. Must follow safety procedures due to hazardous conditions.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
1,710	1,950

Average growth to 2024. Around 70 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$21.53	\$44,800	\$34,700 – 57,000
Kentucky	\$17.57	\$36,500	\$30,500 – 44,400

## LOCATION

Over one fifth of all job openings in Bluegrass area; others statewide.

## INDUSTRIES OF EMPLOYMENT

Over 87% work for local government; remainder occur in a number of industries.

## RELATED OCCUPATIONS

Chemical plant & system operators; gas plant operators; petroleum pump system operators, refinery operators, & gaugers; power plant operators, distributors, & dispatchers; stationary engineers & boiler operators.

**JOB DESCRIPTION**

Set up, operate, or tend machines, such as glass forming machines, plodder machines, & tuber machines, to shape & form products, such as glassware, food, rubber, soap, brick, tile, clay, wax, tobacco, or cosmetics.

**EDUCATION**

Moderate-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Operation monitoring; operation & control; troubleshooting; equipment maintenance; active listening.

**ABILITIES**

Rate control; perceptual speed; reaction time; arm-hand steadiness; far vision.

**KNOWLEDGE**

Production & processing; education & training; machines & tools; English language proficiency; administration & management.

**TASKS**

Adjust machine components to regulate speeds, pressures, & temperatures, & amounts, dimensions, & flow of materials or ingredients. Examine, measure, & weigh materials or products to verify conformance to standards, using measuring devices such as templates, micrometers, or scales. Monitor machine operations & observe lights & gauges in order to detect malfunctions. Press control buttons to activate machinery & equipment. Turn controls to adjust machine functions, such as regulating air pressure, creating vacuums, & adjusting coolant flow. Review work orders, specifications, or instructions to determine materials, ingredients, procedures, components, settings, & adjustments for extruding, forming, pressing, or compacting machines. Select & install machine components such as dies, molds, & cutters, according to specifications, using hand tools & measuring devices. Record & maintain production data such as meter readings, & quantities, types, & dimensions of materials produced. Notify supervisors when extruded filaments fail to meet standards. Synchronize speeds of sections of machines when producing products involving several steps or processes.

**WORK ACTIVITIES**

Control machines & processes; handle & move objects; obtain information; identify objects, actions, & events; communicate with peers, supervisors, or subordinates.

**ADVANCEMENT OPPORTUNITIES**

May advance to supervisory positions.

**WORKING CONDITIONS**

Work indoors, sometimes exposed to hazardous conditions and/or contaminants. May be exposed to very hot or very cold temperatures. Spend time making repetitive motions. Usually work a five-day, 35 to 40-hour week. Facilities might be dirty, hot & noisy.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
1,390	1,410

Average growth to 2024. Around 50 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$15.46	\$32,200	\$25,600 – 40,500
Kentucky	\$15.37	\$32,000	\$25,900 – 37,800

**LOCATION**

Statewide.

**INDUSTRIES OF EMPLOYMENT**

Nearly 43% work in nonmetallic mineral product manufacturing; 12% in plastics & rubber products manufacturing. The remaining are spread across a variety of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Extrusion operator; tuber operator; upkeep mechanic

**RELATED OCCUPATIONS**

Computer-controlled machine tool operators, metal & plastic; extruding & drawing machine setters, operators, & tenders, metal & plastic; grinding, lapping, polishing, & buffing machine tool setters, operators, & tenders, metal & plastic.

## JOB DESCRIPTION

Help production workers by performing duties of lesser skill. Duties include supplying or holding materials or tools, & cleaning work area & equipment.

## EDUCATION

Short-term on-the-job training.

## LOCATION OF TRAINING & EDUCATION

See *Industries of Employment*.

## SKILLS

Equipment selection; reading comprehension; quality control analysis; instructing; speaking; coordination; active listening.

## ABILITIES

Arm-hand steadiness; control precision; problem sensitivity; near vision; trunk strength.

## KNOWLEDGE

Machines & tools; design; production & processing; mathematics; public safety & security; English language proficiency.

## TASKS

Operate machinery used in the production process, or assist machine operators. Examine products to verify conformance to quality standards. Observe equipment operations so that malfunctions can be detected, & notify operators of any malfunctions. Lift raw materials, finished products, & packed items, manually or using hoists. Count finished products to determine if product orders are complete. Mark or tag identification on parts. Load & unload items from machines, conveyors, & conveyances. Help production workers by performing duties of lesser skill, such as supplying or holding materials or tools, & cleaning work areas & equipment. Clean & lubricate equipment. Record information such as the number of products tested, meter readings, & dates & times of product production.

## WORK ACTIVITIES

Control machines & processes; handle & move objects; perform general physical activities; identify objects, actions, & events; obtain information.

## ADVANCEMENT OPPORTUNITIES

May advance into roles as production workers.

## WORKING CONDITIONS

Work indoors or outdoors, sometimes exposed to elements. Spend time making repetitive motions. Must sometimes wear protective gear. Usually work a 40-hour week.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
12,310	13,210

Average growth to 2024. Around 490 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$11.52	\$24,000	\$19,900 – 30,200
<b>Kentucky</b>	\$11.43	\$19,600	\$19,600 – 29,600

## LOCATION

Nearly one quarter in Bluegrass area; a sixth in Northern Kentucky area; others statewide.

## INDUSTRIES OF EMPLOYMENT

Around 47% work in administrative & support services; about 10% in food manufacturing. The remaining work in a number of industries.

## ALTERNATE OCCUPATIONAL TITLES

Support team member; factory worker.

## RELATED OCCUPATIONS

Helpers–pipelayers, plumbers, pipefitters, & steamfitters; computer-controlled machine tool operators, metal & plastic; pourers & casters, metal.

## Supervisors & Managers of Transportation & Material-Moving Machine & Vehicle Operators SOC 53-1031

### JOB DESCRIPTION

Directly supervise & coordinate activities of transportation & material-moving machine & vehicle operators & helpers.

### EDUCATION

Work experience in a related occupation.

### LOCATION OF TRAINING & EDUCATION

See *Related Occupations*.

### SKILLS

Speaking; active listening; instructing; coordination; mathematics; critical thinking; reading comprehension; writing.

### ABILITIES

Written & oral expression & comprehension; information ordering.

### KNOWLEDGE

Transportation; business & management principles; personnel & human resources; mathematics; economics & accounting.

### TASKS

Review orders, production schedules, & shipping/receiving notices to determine work sequence & material shipping dates, type, volume, & destinations. Plan transportation routes, work schedules, & assignments & allocate equipment to meet transportation, operations, or production goals. Maintain or verify time, transportation, financial, inventory & personnel records. Explain work tasks to new workers or assign workers to experienced workers for further training. Resolve worker problems or assist workers in solving problems. Compute & estimate cash, payroll, transportation, personnel, & storage requirements. Requisition needed personnel, supplies, equipment, parts, or repair services. Recommend & implement measures to improve worker motivation, equipment performance, work methods, & customer services. Prepare, compile, & submit reports on work activities, operations, & work related accidents.

### WORK ACTIVITIES

Communicate with supervisors, peers, or subordinates; coordinate the work & activities of others; guide, direct, & motivate subordinates; obtain, document, & record information; inspect equipment, structures, or material; make decisions & solve problems.

### ADVANCEMENT OPPORTUNITIES

May advance to supervisory jobs. Others may go into the contracting business for themselves.

### WORKING CONDITIONS

Work indoors. Usually work a 40-hour week. Must follow safety practices as working with material-moving machines can be dangerous. Responsible for outcomes & results.

### OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

2014	2024
11,800	15,290

Fast growth to 2024. Around 730 job openings annually.

### EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$26.85	\$55,800	\$42,500 – 71,500
Kentucky	\$24.46	\$50,900	\$40,300 – 67,000

### LOCATION

About a quarter of all job openings in Louisville area; others statewide.

### INDUSTRIES OF EMPLOYMENT

Around 15% work in truck transportation; about 12% work for merchant wholesalers, nondurable goods; the remainder are spread throughout a number of industries.

### ALTERNATE OCCUPATIONAL TITLES

Yardmaster; terminal manager; dock supervisor.

### RELATED OCCUPATIONS

Industrial production managers; transportation managers; wholesale & retail buyers, except farm products; storage & distribution managers; public transportation inspectors.

**JOB DESCRIPTION**

Transport students or special clients, such as the elderly or persons with disabilities. Ensure adherence to safety rules. May assist passengers in boarding or exiting.

**EDUCATION**

Short-term on-the-job training. Licensed by the Kentucky Department of Education, Division of Pupil Transportation.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Operation monitoring; equipment maintenance; social perceptiveness; speaking; operation & control.

**ABILITIES**

Response orientation; reaction time; depth perception; night vision; multilimb coordination; peripheral vision; rate control; time sharing.

**KNOWLEDGE**

Transportation; public safety & security; geography; law & government; customer service.

**TASKS**

Drive gasoline, diesel, or electrically powered multi-passenger vehicles to transport students between neighborhoods, schools, & school activities. Check the condition of a vehicle's tires, brakes, windshield wipers, lights, oil, fuel, water, & safety equipment to ensure that everything is in working order. Comply with traffic regulations in order to operate vehicles in a safe & courteous manner. Follow safety rules as students are boarding & exiting buses, & as they cross streets near bus stops. Pick up & drop off students at regularly scheduled neighborhood locations, following strict time schedules. Read maps, & follow written & verbal geographic directions. Regulate heating, lighting, & ventilation systems for passenger comfort. Escort small children across roads & highways. Keep bus interiors clean for passengers. Maintain knowledge of first-aid procedures.

**WORK ACTIVITIES**

Operate vehicles, mechanized devices, or equipment; obtain information; monitor processes, materials, or surroundings; make decisions or solve problems; inspect equipment, structures, or material.

**ADVANCEMENT OPPORTUNITIES**

May advance to supervisory jobs or positions as dispatchers.

**WORKING CONDITIONS**

Work outdoors, sometimes exposed to weather. Often work 20 hours a week or less, driving one or two routes in the morning & afternoon. Must be available for extracurricular activities, & must be prepared to accommodate special needs children. Responsible for the health & safety of others.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
11,800	15,290

Slow growth to 2024. Around 730 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$26.85	\$55,800	\$42,500 – 71,500
<b>Kentucky</b>	\$24.46	\$50,900	\$40,300 – 67,000

**LOCATION**

Statewide.

**INDUSTRIES OF EMPLOYMENT**

Over 89% work for educational services; the rest work in a variety of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Bus operator.

**RELATED OCCUPATIONS**

Taxi drivers & chauffeurs; truck drivers & driver/sales workers.

**JOB DESCRIPTION**

Drive truck or other vehicle over established routes or within an established territory & sell goods, such as food products, including restaurant take-out items, or pick up & deliver items, such as laundry.

**EDUCATION**

Short-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Time management; speaking; equipment maintenance; mathematics; service orientation.

**ABILITIES**

Number facility; spatial orientation; oral expression & comprehension written comprehension.

**KNOWLEDGE**

Sales & marketing; transportation; customer service; mathematics; English language proficiency.

**TASKS**

Drive trucks in order to deliver such items as food, medical supplies, or newspapers. Collect coins from vending machines, refill machines, & remove aged merchandise. Sell food specialties, such as sandwiches & beverages, to office workers & patrons of sports events. Collect money from customers, make change, & record transactions on customer receipts. Call on prospective customers in order to explain company services & to solicit new business. Record sales or delivery information on daily sales or delivery record. Inform regular customers of new products or services & price changes. Review lists of dealers, customers, or station drops & load trucks. Write customer orders & sales contracts according to company guidelines. Listen to & resolve customers' complaints regarding products or services.

**WORK ACTIVITIES**

Operate vehicles, mechanized devices, or equipment; perform or work for the general public; maintain interpersonal relationships; influence others; communicate with persons outside an organization.

**ADVANCEMENT OPPORTUNITIES**

Advancement is generally limited to driving runs that provide increased earnings or preferred schedules & working conditions. May advance to dispatcher, manager, or traffic work.

**WORKING CONDITIONS**

Work outdoors, exposed to weather. Hours will depend on routes involved. Local drivers may return home in the evenings; long distance route drivers may spend a large part of the year away from home. The limit of weekly hours for interstate drivers as established by the Department of Transportation is sixty.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
7,840	8,830

Average growth to 2024. Around 230 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$10.79	\$22,400	\$18,700 – 34,500
<b>Kentucky</b>	\$9.73	\$20,200	\$17,800 – 29,800

**LOCATION**

Nearly a fifth of all job openings in Louisville area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Almost 34% work for merchant wholesalers, nondurable goods; 32% in food services & drinking places; the remainder work in a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Truck drivers.

**RELATED OCCUPATIONS**

Ambulance drivers & attendants, except emergency medical technicians; bus drivers; & taxi drivers; chauffeurs.

## JOB DESCRIPTION

Drive a tractor-trailer combination or a truck with a capacity of at least 26,000 GVW (Gross Vehicle Weight), to transport & deliver goods, livestock, or materials in liquid, loose, or packaged form.

## EDUCATION

Moderate-term on-the-job training.

## LOCATION OF TRAINING & EDUCATION

See *Industries of Employment*.

## SKILLS

Mathematics; writing; equipment maintenance; reading comprehension; operation & control.

## ABILITIES

Near & far vision; reaction time; response orientation; static strength.

## KNOWLEDGE

Transportation; geography; law & government; machines & tools; public safety & security.

## TASKS

Drive truck with capacity of more than three tons to transport & deliver cargo, materials, or damaged vehicle. Maintain radio or telephone contact with base or supervisor to receive instructions or be dispatched to new location. Maintain truck log according to state & federal regulations. Position blocks & tie rope around items to secure cargo for transport. Clean, inspect, & service vehicle. Drive tractor-trailer combination, applying knowledge of commercial driving regulations, to transport & deliver products, livestock, or materials, usually over long distance. Maneuver truck into loading or unloading position, following signals from loading crew as needed. Drive truck to weigh station before & after loading, & along route to document weight & conform to state regulations. Maintain driver log according to Interstate Commerce Commission (ICC) regulations. Read bill of lading to determine assignment. Load or unload, or assist in loading & unloading truck. Work as member of two-person team driving tractor with sleeper bunk behind cab.

## WORK ACTIVITIES

Operate vehicles, mechanized devices, or equipment; handle & move objects; document & record information; inspect equipment, structures, & material; repair & maintain mechanical equipment.

## ADVANCEMENT OPPORTUNITIES

Advancement is generally limited to driving runs that provide increased earnings or preferred schedules & working conditions. May advance to dispatcher, manager, or traffic work.

## WORKING CONDITIONS

Work indoors & outdoors, sometimes exposed to weather. Hours will depend on routes involved. Local drivers may return home in the evenings; long distance route drivers may spend a large part of the year away from home. The limit of weekly hours for interstate drivers as established by the Department of Transportation is sixty.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

2014	2024
22,420	24,210

Fast growth to 2024. Around 560 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$19.36	\$40,300	\$32,700 – 50,200
Kentucky	\$18.37	\$38,200	\$30,100 – 48,300

## LOCATION

More than a fifth of all occupations are in the Louisville area; one seventh in the Bluegrass area; others statewide.

## INDUSTRIES OF EMPLOYMENT

Around 48% work in truck transportation; the remainder are spread throughout a number of industries.

## ALTERNATE OCCUPATIONAL TITLES

Delivery drivers; owner operator.

## RELATED OCCUPATIONS

Ambulance drivers & attendants, except emergency medical technicians; bus drivers; & taxi drivers; chauffeurs.

**JOB DESCRIPTION**

Drive a truck or van with a capacity of under 26,000 GVW (Gross Vehicle Weight), primarily to deliver or pick up merchandise or to deliver packages within a specified area.

**EDUCATION**

Short-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Operation & control; operation monitoring; repairing; writing; speaking; equipment maintenance.

**ABILITIES**

Far vision; spatial orientation; static strength; extent flexibility; reaction time.

**KNOWLEDGE**

Transportation; geography; public safety & security; machines & tools; administrative & clerical procedures.

**TASKS**

Drive vehicles with capacities under three tons in order to transport materials to & from specified destinations such as railroad stations, plants, residences & offices, or within industrial yards. Inspect & maintain vehicle supplies & equipment, such as gas, oil, water, tires, lights, & brakes in order to ensure that vehicles are in proper working condition. Load & unload trucks, vans, or automobiles. Obey traffic laws, & follow established traffic & transportation procedures. Read maps, & follow written & verbal geographic directions. Verify the contents of inventory loads against shipping papers. Maintain records such as vehicle logs, records of cargo, or billing statements in accordance with regulations. Perform emergency repairs such as changing tires or installing light bulbs, fuses, tire chains, & spark plugs. Present bills & receipts, & collect payments for goods delivered or loaded. Report any mechanical problems encountered with vehicles.

**WORK ACTIVITIES**

Operate vehicles, mechanized devices, or equipment; handle & move objects; document & record information; perform general physical activities; repair & maintain mechanical equipment.

**ADVANCEMENT OPPORTUNITIES**

May work into a higher-paying position or become supervisors.

**WORKING CONDITIONS**

Work indoors & outdoors, often exposed to weather or contaminants. Work a standard 8-hour shift, though additional night or weekend hours are common. Workers may be exposed to harmful materials or chemicals, fumes, odors, loud noise, or dangerous machinery; must wear protective gear.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

2014	2024
14,070	15,830

Fast growth to 2024. Around 420 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$14.35	\$29,800	\$22,400 – 40,100
Kentucky	\$13.70	\$28,500	\$21,800 – 38,300

**LOCATION**

Over two fifths of occupations are in the Louisville area; around a fifth in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Around 25% work for couriers & messengers; the remainder are spread amongst a variety of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Material movers; delivery drivers; route drivers.

**RELATED OCCUPATIONS**

Bus drivers; construction equipment operators; machine setters, operators, & tenders—metal & plastic; rail transportation workers; truck drivers & driver/sales workers; agricultural workers; building cleaning workers; construction laborers; forest, conservation, & logging workers; grounds maintenance workers.

**JOB DESCRIPTION**

Drive automobiles, vans, or limousines to transport passengers. May occasionally carry cargo. Includes hearse drivers.

**EDUCATION**

Short-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Active listening; social perceptiveness; time management; mathematics; equipment maintenance.

**ABILITIES**

Reaction time; response orientation; oral comprehension; far vision; time sharing.

**KNOWLEDGE**

Customer & personal service; public safety & security; English language proficiency; transportation; administration & management.

**TASKS**

Test functionality of vehicle equipment such as lights, brakes, horns, or windshield wipers. Notify dispatchers or company mechanics of vehicle problems. Drive taxicabs, limousines, company cars, or privately owned vehicles to transport passengers. Follow regulations governing taxi operation & ensure that passengers follow safety regulations. Pick up passengers at prearranged locations, at taxi stands, or by cruising streets in high traffic areas. Perform routine vehicle maintenance such as regulating tire pressure & adding gasoline, oil, & water. Communicate with dispatchers by radio, telephone, or computer to exchange information & receive requests for passenger service. Record various forms of data on trip sheets. Complete accident reports when necessary. Provide passengers with assistance entering & exiting vehicles, & help them with any luggage.

**WORK ACTIVITIES**

Operate vehicles, mechanized devices, or equipment; work directly with the public; inspect equipment, structures, or material; assist & care for others; monitor processes, materials, & surroundings.

**ADVANCEMENT OPPORTUNITIES**

Advancement opportunities are often limited. Experienced drivers may obtain preferred routes or shifts.

**WORKING CONDITIONS**

Generally work 8-12 hour shifts daily. Evening, weekend, & holiday work is essential. Large majority of time spent behind the wheel. May be required to lift heavy luggage or objects. Work can be stressful.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
2,480	2,870

Very fast growth to 2024. Around 90 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$11.30	\$23,500	\$19,600 – 29,800
Kentucky	\$9.27	\$19,300	\$17,400 – 23,300

**LOCATION**

Almost a quarter of occupations are in the Bluegrass area; around a fifth in each of the Louisville & Northern Kentucky areas; others statewide.

**INDUSTRIES OF EMPLOYMENT**

About 36% work for transit and ground passenger transportation; 28% are self-employed; 11% for social assistance; the remainder work in a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Escorts; cabbies; limo drivers.

**RELATED OCCUPATIONS**

Bus drivers; truck drivers & driver/sales workers.

## JOB DESCRIPTION

Operate or tend machinery equipped with scoops, shovels, or buckets, to excavate & load loose materials. Exclude "Dredge Operators".

## EDUCATION

Moderate-term on-the-job training. Licensed by Kentucky Environmental & Public Protection Cabinet, Office of Mine Safety & Licensing.

## LOCATION OF TRAINING & EDUCATION

See *Industries of Employment*.

## SKILLS

Equipment selection & maintenance; operation & control; operation monitoring; repairing.

## ABILITIES

Control precision; multilimb coordination; spatial orientation; far vision; depth perception; manual dexterity.

## KNOWLEDGE

Machines & tools; building & construction; customer & personal service; production & processing; public safety & security.

## TASKS

Move levers, depress foot pedals, & turn dials to operate power machinery such as power shovels, stripping-shovels, scraper loaders, or backhoes. Set up & inspect equipment prior to operation. Observe hand signals, grade stakes, & other markings when operating machines so that work can be performed to specifications. Become familiar with digging plans, machine capabilities & limitations, & with efficient & safe digging procedures in a given application. Operate machinery to perform activities such as backfilling excavations, vibrating or breaking rock or concrete, & making winter roads. Create & maintain inclines & ramps, & handle slides, mud, & pit cleanings & maintenance. Lubricate, adjust, & repair machinery, & replace parts such as gears, bearings, & bucket teeth. Move materials over short distances, such as around a construction site, factory, or warehouse. Measure & verify levels of rock or gravel, bases, & other excavated material. Receive written or oral instructions regarding material movement or excavation.

## WORK ACTIVITIES

Operate vehicles, mechanized devices, or equipment; handle & move objects; control machines & processes; inspect equipment, structures, or material; monitor processes, materials, or surroundings.

## ADVANCEMENT OPPORTUNITIES

Most advance with experience to supervisory positions.

## WORKING CONDITIONS

Work tends to be repetitive & physically demanding. May lift & carry heavy objects & work in awkward positions. Might work in a variety of elements. Some jobs expose workers to fumes, odors, loud noises, harmful materials & chemicals, or dangerous machinery. Often workers must wear protective gear. Generally work 8-hour shifts, though longer shifts or irregular hours also are not uncommon.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

2014	2024
1,450	1,540

Fast growth to 2024. Around 30 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$19.26	\$40,100	\$32,700 – 53,000
Kentucky	\$19.14	\$39,800	\$31,600 – 48,300

## LOCATION

About a fifth of all openings in Louisville area; another fifth in Kentucky River area; those remaining statewide.

## INDUSTRIES OF EMPLOYMENT

Nearly 35% work in mining (except oil & gas); 19% are self-employed; 19% work for heavy and civil engineering construction; the remainder work in a number of other industries.

## RELATED OCCUPATIONS

Construction equipment operators; machine setters, operators, & tenders—metal & plastic; rail transportation workers; truck drivers & driver/sales workers; agricultural workers; building cleaning workers; construction laborers; forest, conservation, & logging workers; grounds maintenance workers.

## JOB DESCRIPTION

Operate underground loading machine to load coal, ore, or rock into shuttle or mine car or onto conveyors. Loading equipment may include power shovels, hoisting engines equipped with cable-drawn scraper or scoop, or machines equipped with gathering arms & conveyor.

## EDUCATION

Moderate-term on-the-job training. Licensed by Kentucky Environmental & Public Protection Cabinet, Office of Mine Safety & Licensing.

## LOCATION OF TRAINING & EDUCATION

See *Industries of Employment*.

## SKILLS

Equipment maintenance; operation & control; instructing; active listening; operation monitoring.

## ABILITIES

Control precision; multilimb coordination; near vision; manual dexterity; depth perception.

## KNOWLEDGE

Machines & tools; production & processing; education & training; administration & management; English language proficiency.

## TASKS

Pry off loose material from roofs & move it into the paths of machines, using crowbars. Move trailing electrical cables clear of obstructions, using rubber safety gloves. Drive machines into piles of material blasted from working faces. Operate levers to move conveyor booms or shovels so that mine contents such as coal, rock, & ore can be placed into cars or onto conveyors. Clean hoppers, & clean spillage from tracks, walks, driveways, & conveyor decking. Oil, lubricate, & adjust conveyors, crushers, & other equipment. Replace hydraulic hoses, headlight bulbs, & gathering-arm teeth. Stop gathering arms when cars are full. Advance machines in order to gather material & convey it into cars. Start conveyor booms & gathering-arm motors, & operate winches to position cars under boom-conveyors for loading.

## WORK ACTIVITIES

Operate vehicles, mechanized devices, or equipment; obtain information; identify objects, actions, & events; inspect equipment, structures, or material; monitor processes, materials, or surroundings.

## ADVANCEMENT OPPORTUNITIES

Most advance with experience to supervisory positions.

## WORKING CONDITIONS

Work tends to be repetitive & physically demanding. May lift & carry heavy objects & work in awkward positions. Might work in a variety of elements. Some jobs expose workers to fumes, odors, loud noises, harmful materials & chemicals, or dangerous machinery. Often workers must wear protective gear. Generally work 8-hour shifts, though longer shifts or irregular hours also are not uncommon.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

2014	2024
620	550

Average growth to 2024. Around 10 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$25.15	\$52,300	\$38,700 – 60,000
Kentucky	\$23.47	\$48,800	\$39,400 – 62,100

## LOCATION

Most work in the Cumberland Valley region, but some work elsewhere.

## INDUSTRIES OF EMPLOYMENT

About 80% work in mining (except oil & gas. The remaining work in a number of other industries.

## ALTERNATE OCCUPATIONAL TITLES

Machine loader; miner.

## RELATED OCCUPATIONS

Paving, surfacing, & tamping equipment operators; operating engineers & other construction equipment operators; rail-track laying & maintenance equipment operators; rotary drill operators, oil & gas; continuous mining machine operators; helpers–extraction workers; shuttle car operators.

## JOB DESCRIPTION

Operate industrial trucks or tractors equipped to move materials around a warehouse, storage yard, factory, construction site, or similar location. Exclude "Logging Equipment Operators".

## EDUCATION

Short-term on-the-job training.

## LOCATION OF TRAINING & EDUCATION

See *Industries of Employment*.

## SKILLS

Operation & control; operation monitoring; repairing; equipment selection & maintenance; coordination.

## ABILITIES

Control precision; multilimb coordination; depth perception; manual dexterity; static strength.

## KNOWLEDGE

Transportation; mathematics; production & processing; machines & tools; administrative & clerical procedures; physics.

## TASKS

Move controls to drive gasoline- or electric-powered trucks, cars, or tractors & transport materials between loading, processing, & storage areas. Move levers & controls that operate lifting devices, such as forklifts, lift beams & swivel-hooks, hoists, & elevating platforms, in order to load, unload, transport, & stack material. Position lifting devices under, over, or around loaded pallets, skids, & boxes, & secure material or products for transport to designated areas. Hook tow trucks to trailer hitches & fasten attachments using hitchpins. Turn valves & open chutes in order to dump, spray, or release materials from dump cars or storage bins into hoppers. Perform routine maintenance on vehicles & auxiliary equipment. Manually load or unload materials onto or off pallets, skids, platforms, cars, or lifting devices. Operate or tend automatic stacking, loading, packaging, or cutting machines. Weigh materials or products, & record weight & other production data on tags or labels.

## WORK ACTIVITIES

Operate vehicles, mechanized devices, or equipment; handle & move objects; control machines & processes; perform general physical activities; repair & maintain mechanical equipment.

## ADVANCEMENT OPPORTUNITIES

May work into a higher-paying position or become supervisors.

## WORKING CONDITIONS

Work indoors & outdoors, often exposed to weather or contaminants. Work a standard 8-hour shift, though additional night or weekend hours are common. Workers may be exposed to harmful materials or chemicals, fumes, odors, loud noise, or dangerous machinery; must wear protective gear.

## OUTLOOK OPPORTUNITIES

Kentucky Statewide Employment:

2014	2024
17,150	19,450

Average growth to 2024. Around 660 job openings annually.

## EARNINGS

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
US	\$15.43	\$32,100	\$26,000 – 39,600
Kentucky	\$14.40	\$30,000	\$25,400 – 36,600

## LOCATION

Around a third of occupations are in the Louisville area; about an eighth in Bluegrass area; others statewide.

## INDUSTRIES OF EMPLOYMENT

Around 26% work in warehousing & storage; the remainder work in a variety of other industries.

## ALTERNATE OCCUPATIONAL TITLES

Material movers; forklift operator; spotter driver.

## RELATED OCCUPATIONS

Bus drivers; construction equipment operators; machine setters, operators, & tenders—metal & plastic; rail transportation workers; truck drivers & driver/sales workers; agricultural workers; building cleaning workers; construction laborers; forest, conservation, & logging workers; grounds maintenance workers.

**JOB DESCRIPTION**

Manually move freight, stock, or other materials or perform other unskilled general labor. Includes all unskilled manual laborers not elsewhere classified.

**EDUCATION**

Short-term on-the-job training.

**LOCATION OF TRAINING & EDUCATION**

See *Industries of Employment*.

**SKILLS**

Active listening; reading comprehension; instructing; learning strategies; coordination; time management.

**ABILITIES**

Static & trunk strength; oral comprehension & expression; near vision; multilimb coordination.

**KNOWLEDGE**

English language proficiency; public safety & security; mathematics; customer & personal service; transportation.

**TASKS**

Attach identifying tags to containers, or mark them with identifying information. Read work orders or receive oral instructions to determine work assignments & material & equipment needs. Record numbers of units handled & moved, using daily production sheets or work tickets. Move freight, stock, & other materials to & from storage & production areas, loading docks, delivery vehicles, ships, & containers, by hand or using trucks, tractors, & other equipment. Sort cargo before loading & unloading. Assemble product containers & crates, using hand tools & precut lumber. Load & unload ship cargo, using winches & other hoisting devices. Connect hoses & operate equipment to move liquid materials into & out of storage tanks on vessels. Pack containers & re-pack damaged containers. Carry needed tools & supplies from storage or trucks, & return them after use.

**WORK ACTIVITIES**

Inspect equipment, structures, or material; obtain information; operate vehicles, mechanized devices, or equipment; monitor process, materials, or surrounding; perform general physical activities.

**ADVANCEMENT OPPORTUNITIES**

May work into a higher-paying position or become supervisors.

**WORKING CONDITIONS**

Work mostly indoors, spending time making repetitive motions. Must wear protective gear. Work a standard eight-hour shift, though additional night or weekend hours are common. Workers may be exposed to harmful materials or chemicals, fumes, odors, loud noise, or dangerous machinery.

**OUTLOOK OPPORTUNITIES**

Kentucky Statewide Employment:

<u>2014</u>	<u>2024</u>
29,950	34,950

Fast growth to 2024. Around 1,390 job openings annually.

**EARNINGS**

Location	Median, 2015		Midrange, 2015
	Hourly	Annual	Annual
<b>US</b>	\$12.02	\$25,000	\$20,300 – 32,600
<b>Kentucky</b>	\$11.83	\$24,600	\$20,400 – 31,100

**LOCATION**

About a third of all job openings in Louisville area; an eighth in Bluegrass area; others statewide.

**INDUSTRIES OF EMPLOYMENT**

Nearly 18% work for couriers & messengers; 14% work in administrative & support services. Those remaining are spread throughout a number of industries.

**ALTERNATE OCCUPATIONAL TITLES**

Material handler; warehouse worker; receiver; line tender; loader.

**RELATED OCCUPATIONS**

Landscaping & groundskeeping workers; helpers–brickmasons, blockmasons, stonemasons, & tile & marble setters; cleaners of vehicles & equipment; packers & packagers, hand; wellhead pumpers.

## **O\*NET SKILLS DEFINITIONS**

### **Basic Skills**

#### **Active Learning**

Understanding the implications of new information for both current and future problem-solving and decision-making.

#### **Active Listening**

Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.

#### **Critical Thinking**

Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.

#### **Learning Strategies**

Selecting and using training/instructional methods and procedures appropriate for the situation when learning or teaching new things.

#### **Mathematics**

Using mathematics to solve problems.

#### **Monitoring**

Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.

#### **Reading Comprehension**

Understanding written sentences and paragraphs in work related documents.

#### **Science**

Using scientific rules and methods to solve problems.

#### **Speaking**

Talking to others to convey information effectively.

#### **Writing**

Communicating effectively in writing as appropriate for the needs of the audience.

### **Social Skills**

#### **Coordination**

Adjusting actions in relation to others' actions.

#### **Instructing**

Teaching others how to do something.

#### **Negotiation**

Bringing others together and trying to reconcile differences.

#### **Persuasion**

Persuading others to change their minds or behavior.

#### **Service Orientation**

Actively looking for ways to help people.

#### **Social Perceptiveness**

Being aware of others' reactions and understanding why they react as they do.

### **Complex Problem Solving Skills**

#### **Complex Problem Solving**

Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.

## **Technical Skills**

### **Equipment Maintenance**

Performing routine maintenance on equipment and determining when and what kind of maintenance is needed.

### **Equipment Selection**

Determining the kind of tools and equipment needed to do a job.

### **Installation**

Installing equipment, machines, wiring, or programs to meet specifications.

### **Operation Monitoring**

Watching gauges, dials, or other indicators to make sure a machine is working properly.

### **Operation and Control**

Controlling operations of equipment or systems.

### **Operations Analysis**

Analyzing needs and product requirements to create a design.

### **Programming**

Writing computer programs for various purposes.

### **Quality Control Analysis**

Conducting tests and inspections of products, services, or processes to evaluate quality or performance.

### **Repairing**

Repairing machines or systems using the needed tools.

### **Technology Design**

Generating or adapting equipment and technology to serve user needs.

### **Troubleshooting**

Determining causes of operating errors and deciding what to do about it.

## **Systems Skills**

### **Judgment and Decision Making**

Considering the relative costs and benefits of potential actions to choose the most appropriate one.

### **Systems Analysis**

Determining how a system should work and how changes in conditions, operations, and the environment will affect outcomes.

### **Systems Evaluation**

Identifying measures or indicators of system performance and the actions needed to improve or correct performance, relative to the goals of the system.

## **Resource Management Skills**

### **Management of Financial Resources**

Determining how money will be spent to get the work done, and accounting for these expenditures.

### **Management of Material Resources**

Obtaining and seeing to the appropriate use of equipment, facilities, and materials needed to do certain work.

### **Management of Personnel Resources**

Motivating, developing, and directing people as they work, identifying the best people for the job.

### **Time Management**

Managing one's own time and the time of others.

A		D	
Accountants & Auditors	15	Dental Assistants	83
Administrative Services Managers	6	Dental Hygienists	71
Amusement & Recreation Attendants	106	Diagnostic Medical Sonographers	72
Architects, Except Landscape & Naval	22	Dietitians & Nutritionists	59
Automotive Service Technicians & Mechanics	130	Dining Room & Cafeteria Attendants & Bartender Helpers	97
<b>B</b>		Dishwashers	98
Bartenders	93	Driver/Sales Workers	145
Bill & Account Collectors	117	<b>E</b>	
Brickmasons & Blockmasons	125	Education, Training, & Library Workers, All Other	53
Bus & Truck Mechanics & Diesel Engine Specialists	131	Educational, Vocational, & School Counselors	31
Bus Drivers, School	144	Electrical Power-Line Installers & Repairers	135
Business Operations Specialists, All Other	14	Elementary School Teachers, Excl. Special Education	45
<b>C</b>		Emergency Medical Technicians & Paramedics	73
Cabinetmakers & Bench Carpeneters	139	Employment, Recruitment, & Placement Specialists	13
Cement Masons & Concrete Finishers	126	Environmental Engineers	25
Child Care Workers	108	Environmental Scientists & Specialists, Including Health	28
Child, Family, & School Social Workers	34	Excavating & Loading Machine & Dragline Operators	149
Chiropractors	58	Extruding, Forming, Pressing, & Compacting Machine Setters, Operators, & Tenders	141
Civil Engineers	24	<b>F</b>	
Claims Adjusters, Examiners, & Investigators	11	Fire Fighters	87
Clergy	38	Food Preparation Workers	92
Clinical, Counseling, & School Psychologists	29	<b>G</b>	
Coaches & Scouts	55	General & Operations Managers	3
Combined Food Preparation & Serving Workers, Including Fast Food	94	Graphic Designers	54
Computer & Information Systems Managers	7	<b>H</b>	
Computer Software Engineers, Applications	18	Hairdressers, Hairstylists, & Cosmetologists	107
Computer Software Engineers, Systems Software	19	Health Specialties Teachers, Postsecondary	41
Computer Support Specialists	21	Heating, Air Conditioning, & Refrigeration Mechanics & Installers	133
Computer Systems Analysts	17	Helpers—Production Workers	142
Construction Managers	8	Highway Maintenance Workers	127
Continuous Mining Machine Operators	128	Home Health Aides	79
Cooks, Restaurant	91	Hosts & Hostesses, Restaurant, Lounge, & Coffee Shop	99
Cost Estimators	12		
Counter Attendants, Cafeteria, Food Concession, & Coffee Shop	95		
Customer Service Representatives	118		

<b>I</b>		<b>N</b>	
Industrial Engineers	26	Network & Computer Systems Administrators	20
Industrial Truck & Tractor Operators	151	Nonfarm Animal Caretakers	105
Installation, Maintenance, & Repair Workers, All Other	138	Nursing Aides, Orderlies, & Attendants	80
Instrucional Coordinators	51		
Insurance Sales Agents	113		
Interviewers, Except Eligibility & Loan	119		
<b>J</b>		<b>O</b>	
		Occupational Therapists	64
		Optometrists	60
Janitors & Cleaners, Except Maids & Housekeeping Cleaners	102	<b>P</b>	
<b>L</b>		Paralegals & Legal Assistants	40
		Personal & Home Care Aides	109
Laborers & Freight, Stock, & Material Movers, Hand	152	Personal Financial Advisors	16
Landscaping & Groundskeeping Workers	103	Pharmacists	61
Lawyers	39	Pharmacy Technicians	74
Library Assistants, Clerical	120	Photographers	57
Licensed Practical & Licensed Vocational Nurses	77	Physical Therapist Aides	82
Loading Machine Operators, Underground Mining	150	Physical Therapists	65
<b>M</b>		Physical Therpaist Assistants	81
		Physician Assistants	63
Maintenance & Repair Workers, General	134	Physicians & Surgeons, All Other	62
Managers of Food Preparation & Serving Workers	90	Police & Sheriff's Patrol Officers	88
Managers of Mechanics, Installers, & Repairers	129	Police, Fire, & Ambulance Dispatchers	122
Marketing Managers	4	Postsecondary Teachers, All Other	43
Marriage & Family Therapists	32	Preschool Teachers, Excl. Special Education	44
Mechanical Engineers	27	Public Relations Specialists	56
Medical & Clinical Laboratory Technologists	70	<b>R</b>	
Medical & Health Services Managers	9	Real Estate Agents	116
Medical & Public Health Social Workers	35	Receptionists & Information Clerks	121
Medical Assistants	84	Recreation Workers	110
Medical Equipment Repairers	137	Registered Nurses	69
Medical Records & Health Information Technicians	78	Residential Advisors	111
Medical Secretaries	123	Respiratory Therapists	66
Mental Health & Substance Abuse Social Workers	36	Retail Salespersons	112
Mental Health Counselors	33		
Middle School Teachers, Excl. Special & Vocational Education	46		
Mobile Heavy Equipment Mechanics, Except Engines	132		

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Sales Managers	5
Sales Representatives, Wholesale & Manufacturing, Technical & Scientific Products	115
Secondary School Teachers, Excl. Special & Vocational Education	47
Securities, Commodities, & Financial Services Sales Agents	114
Security Guards	89
Social & Community Service Managers	10
Social & Human Service Assistants	37
Special Education Teachers, Middle School	49
Special Education Teachers, Preschool, Kindergarten, &	48
Special Education Teachers, Secondary School	50
Speech-Language Pathologists	67
Substance Abuse & Behavioral Disorder Counselors	30
Supervisors & Managers of Construction & Extraction Workers	124
Supervisors & Managers of Fire Fighting & Prevention Workers	86
Supervisors & Managers of Housekeeping & Janitorial Workers	100
Supervisors & Managers of Landscaping, Lawn Service, & Groundskeeping Workers	101
Supervisors & Managers of Personal Service Workers	104
Supervisors & Managers of Police & Detectives	85
Supervisors & Managers of Transportation & Material-Moving Machine & Vehicle Operators	143
Surgical Technologists	75
Surveyors	23

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Taxi Drivers & Chauffeurs	148
Teacher Assistants	52
Telecommunications Line Installers & Repairers	136
Truck Drivers, Heavy & Tractor-Trailer	146
Truck Drivers, Light or Delivery Services	147

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Veterinarians	68
Veterinary Technologists & Technicians	76
Vocational Education Teachers, Postsecondary	42

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Waiters & Waitresses	96
Water & Liquid Waste Treatment Plant & System Operators	140