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ABSTRACT

This report contains employment, salary, and placement information related to career programs at Johnson County Community College (JCCC, Kansas) as of December 1998. Employment and salary projections for the greater Kansas City area, the state of Kansas, and the nation, as well as salary and placement information for JCCC program completers, are provided for 45 occupations, including: accounting, administration of justice/law enforcement, automotive technology, aviation maintenance technology, chef apprentice, civil engineering technology, communication design, computer information systems, construction management, correctional services, cosmetology, dental hygiene, drafting technology, early childhood education, electrical technology, electronics engineering technology, emergency medical science, fashion merchandising, fire science, grounds and turf management, health aide occupations, health information technology, hospitality management, HVAC technology, industrial programmable controls, information technology, interior merchandising interpreter training, licensed practical nurse, marketing and management, metal fabrication, nursing, occupational therapy assistant, office systems technology, paralegal, physical therapy assistant, radiologic technology, railroading operations, respiratory care, retail sales/service sales/teleservice representative, sales and customer relations, travel and tourism, and veterinary technology. Other JCCC career programs for which minimal outlook information was available include business entrepreneurship, industrial programmable controls, and interpreter training.  
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**EMPLOYMENT, SALARY & PLACEMENT  
INFORMATION FOR  
JOHNSON COUNTY COMMUNITY COLLEGE  
CAREER PROGRAMS**

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## INTRODUCTION

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Rapid technological advances, growing foreign competition, and changing business practices are the challenges confronting the jobs of the future. These challenges will demand a highly skilled American workforce that can quickly adapt to a changing workplace. Making informed career decisions requires reliable information about opportunities in the future--opportunities which result from the relationships between the population, the labor force, and the demand for goods and services. This report provides this type of information for the career programs offered through Johnson County Community College.

### *General Predictions*

Between 1996 and 2006, the labor force will become increasingly diverse while the service-producing sector of the economy continues to grow. In addition, the demographic composition of the labor force will change, as will the industrial structure of the economy and the distribution of jobs by occupation.

Labor force growth will be slower over the 1996-2006 period than during the previous 10 years because of slowing population growth. As the baby-boom generation ages, the age distribution of the labor force will continue to shift upward. Overall employment will increase by 18.6 million jobs, or 14%. Wage and salary worker employment will account for 94% of this increase. In addition, the number of self-employed workers is expected to increase to 11.6 million by 2006, while the number of unpaid family workers will decline.

Employment is projected to grow in occupations at all levels of education and training. Jobs usually requiring an associate's degree or more education will grow at a faster rate than the average. The majority of the numerical growth in employment, however, will be in occupations requiring less education than an associate's degree and also paying considerably less than jobs requiring more education. By 2006, approximately 9% of all jobs will require postsecondary vocational training or an associate's degree, 20% will require a bachelor's degree, 3% will require a graduate degree, and 68% will require only on-the-job training or previous work experience in a related occupation.

Industry employment growth will be concentrated in the service-producing sector of the economy. The services and retail trade industry division will account for about 85% of total growth between 1996 and 2006. Significant growth is also projected in business services and health services.

The number of Hispanics, Asians, and other minorities in the labor force will continue to increase much faster than black non-Hispanics and white non-Hispanics, but white non-Hispanics will still account for the vast majority--73%--of all workers in 2006. Women's share of the labor force is projected to slowly increase from 46% to 47% of all jobs, continuing a pattern that began in 1976.

## LIST OF SOURCES

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### Local Data Sources

*Johnson County Wage & Salary Report: 1998 Edition.* County Economic Research Institute, Inc. in cooperation with the Kansas Department of Human Resources.

*Career Program Completers: Class of 1996-97, a Short-Term Follow-up Study.* Office of Institutional Research, Johnson County Community College. September 1998.

*Career Program Completers: Class of 1993-94, a Long-Term Follow-up Study.* Office of Institutional Research, Johnson County Community College. November, 1998.

*Kansas City MSA Employment Outlook: Projections to 2005.* Occupational Information Unit, Missouri Department of Labor & Industrial Relations. May 1996.

*Kansas Occupational Outlook: 2005.* "Kansas City Area." Kansas Department of Human Resources, Labor Market Information Services. May 1996.

*Kansas City, MO-KS National Compensation Survey: September 1997.* U.S. Department of Labor, Bureau of Labor Statistics, Bulletin 3090-30.

### State Data Sources

*Kansas Wage Survey: 1996 Edition.* Kansas Department of Human Resources, Labor Market Information Services. April 1998.

*Kansas Occupational Outlook: 2005.* Kansas Department of Human Resources, Labor Market Information Services. May 1996.

### National Data Sources

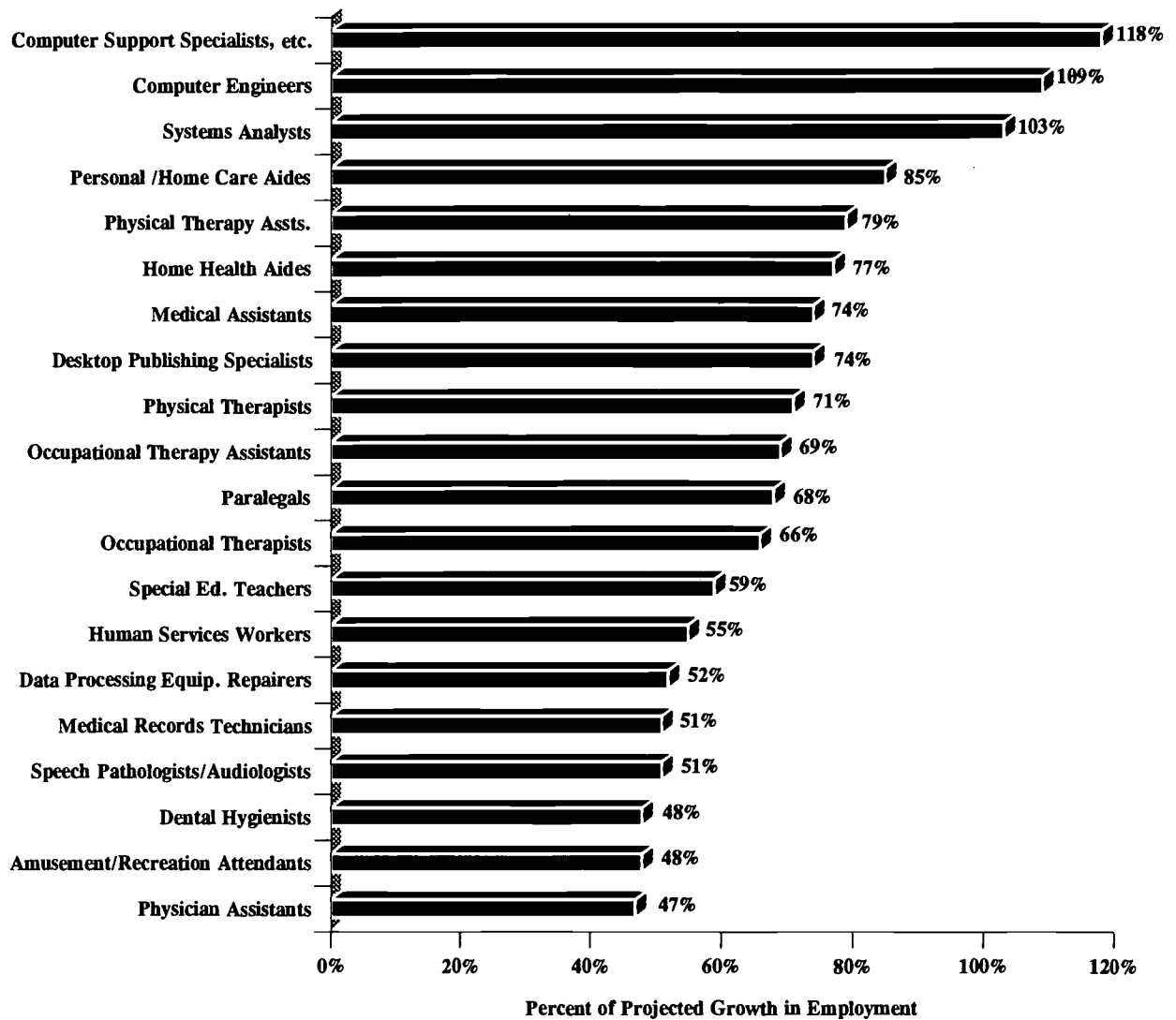
*Occupational Outlook Handbook: 1998-99 Edition.* U.S. Department of Labor, Bureau of Labor Statistics, Bulletin 2500. January 1998.

*Occupational Outlook Quarterly.* "Charting the Projections: 1996-2006." U.S. Department of Labor, Bureau of Labor Statistics. Winter 1997-98.

*Occupational Projections and Training Data: 1998-99 Edition.* U.S. Department of Labor, Bureau of Labor Statistics, Bulletin 2501. January 1998.

## FASTEST GROWING OCCUPATIONS PROJECTED: 1996-2006

*Fifteen of the 20 fastest growing occupations are associated with health services or computer technology. Most have high earnings and low unemployment rates. Percent of growth is not necessarily indicative of occupations in which the greatest number of jobs will be available, however.*

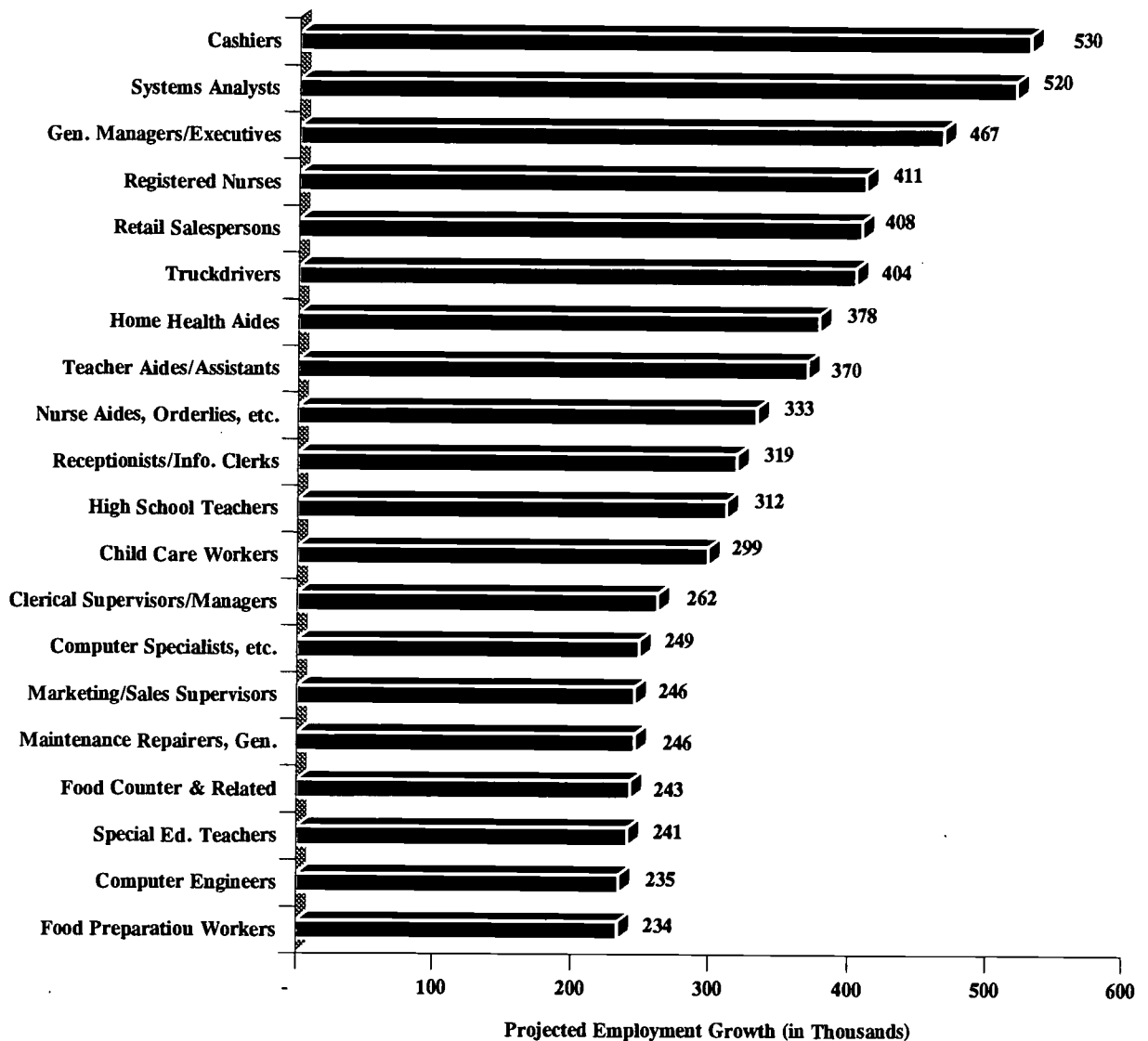


Source: Bureau of Labor Statistics, *Occupational Outlook Quarterly*, Winter 1997-98



## OCCUPATIONS WITH THE LARGEST INCREASE IN JOBS PROJECTED: 1996-2006

*Occupational growth will be very concentrated. Twenty out of the more than 500 detailed occupations are projected to account for 36% of total employment growth over the 1996-2006 period. One-half of these 20 occupations have both above average earnings and below average unemployment rates. Numbers are in thousands of jobs projected for each occupational category.*



Source: Bureau of Labor Statistics, *Occupational Outlook Quarterly*, Winter 1997-98

## ACCOUNTING

Virtually all job openings for bookkeeping, accounting, and auditing clerks through the year 2006 will stem from replacement needs, but the large size of the occupation ensures plentiful job openings, including many opportunities for temporary and part-time work. A growing economy should result in more financial transactions and other activities and, therefore, more demand for accounting services. However, the continuing spread of office automation will result in increasing worker productivity. Organizations of all sizes are likely to continue the consolidation of various recordkeeping functions, thus reducing the demand for these workers.

### Employment Information

**Greater Kansas City Area:** Approximately 15,209 bookkeeping and accounting clerks were employed in the Greater Kansas City area in 1994, with 14,310 jobs projected by the year 2005 (-6%). However, an average of 238 annual openings are still anticipated due to the need for replacements.

**State:** Bookkeeping, accounting and auditing clerks held 23,230 jobs in Kansas in 1993, with 21,550 jobs projected by 2005 (-7%). However, due to replacements approximately 230 average annual openings are still projected.

**National:** Bookkeeping, accounting and auditing clerks held 2,250,000 jobs in 1996, with 2,147,000 jobs projected by 2006 (-5%). Approximately 351,000 annual openings are anticipated, due primarily to the need for replacement workers.

### Salary Information

**Johnson County:** Bookkeeping, accounting, and auditing clerks working in Johnson County earned an average hourly wage of \$10.67 in 1996.

**Greater Kansas City Area:** Bookkeeping, accounting and auditing clerks employed in the Greater Kansas City area earned an hourly wage of \$10.83 in September 1997, with a median wage of \$10.34 reported. The top 10% earned more than \$13.75, and the lowest paid 10% earned less than \$7.73 per hour.

**State:** Bookkeeping, accounting, and auditing clerks in Kansas earned an average hourly wage of \$9.37 in 1996; half of the bookkeeping, accounting, and auditing clerks in the state earned less than \$9.15 per hour, and half earned more.

**National:** Bookkeeping, accounting, and auditing clerks earned a median hourly wage of \$9.95 in 1996. However, region of the country, size of city, and type and size of establishment all influence salary levels. The level of industry or technical expertise required and the complexity and uniqueness of a clerk's responsibilities may also affect earnings.

**JCCC Career Program Completers:** An average entry-level hourly wage of \$12.27 was reported by the 1996-97 accounting program completers responding to the January 1998 short-term follow-up study who were working full-time in a job related to accounting.

An average hourly wage of \$8.56 was reported by 1993-94 accounting program completers working full-time in a related job who responded to the long-term follow-up study conducted in 1998.

### **JCCC Placement Information**

Nearly 77% of accounting program completers responding to the short-term follow-up study of 1996-97 JCCC career program completers and 80% of the 1993-94 accounting program completers contacted for the 1998 long-term follow-up study were employed in a job related to accounting.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

## ADMINISTRATION OF JUSTICE/LAW ENFORCEMENT

Employment of police officers, detectives, and special agents is expected to increase about as fast as the average for all occupations through the year 2006. Because of relatively attractive salaries and benefits, the number of qualified candidates exceeds the number of job openings in federal law enforcement agencies and in most state, local, and special police departments--resulting in increased hiring standards and selectivity by employers. Competition is expected to remain keen for the higher paying jobs with state and federal agencies and police departments in more affluent areas. Persons having college training in police science, military experience, or both should have the best opportunities. Turnover in police, detective, and special agent positions is among the lowest of all occupations. Thus, the need to replace workers who retire, transfer to other occupations, or stop working for other reasons will be the source of most job openings.

### Employment Information

**Greater Kansas City Area:** A total of 4,258 workers were employed as patrol officers, detectives, supervisors, corrections officers, federal marshals, criminal investigators, and sheriffs in the Greater Kansas City area in 1994. Approximately 5,693 jobs are projected by the year 2005 (+34%), with 276 average annual job openings, including replacements, anticipated. Approximately 537 workers were employed as police and fire dispatchers in 1994, with 589 jobs projected by the year 2005 (+10%), with 13 average annual openings, including replacements, anticipated.

**State:** A total of 8,230 workers were employed as police detectives, patrol officers, correction officers, U.S. marshals, and sheriffs and deputy sheriffs in Kansas in 1993, with 11,470 jobs projected by 2005 (+39%). Approximately 520 average annual openings, including replacements, are anticipated. Emergency services dispatchers held 1,190 jobs in Kansas in 1993, with 1,300 jobs projected by 2005 (+9%). Approximately 30 average annual openings are projected, including replacements.

**National:** Approximately 1,024,000 individuals were employed in law enforcement occupations in 1996, with 1,217,000 jobs projected by 2006 (+19%). An average of 110,000 annual openings are anticipated, including replacements. About 413,000 police patrol officers held jobs in 1996, with 486,000 jobs anticipated by 2006 (+18%). Approximately 40,000 average annual openings, including replacements, are projected.

### Salary Information

**Johnson County:** Police officers in Johnson County earned an average of \$16.21 in 1996, while police, fire, and ambulance dispatchers earned \$10.22 per hour.

**Greater Kansas City Area:** Police and detectives employed in the Greater Kansas City area earned an average hourly wage of \$17.18 in September 1997, with a middle range of

\$14.05 to \$21.17 per hour, while police and detectives supervisors earned \$23.98 on the average.

**State:** The average hourly wage in Kansas was \$13.08 police patrol officers. Half of the patrol officers earned less than \$12.69 per hour, and half earned more. Police detectives earned an average of \$14.79 per hour in 1996; half earned less than \$13.54, and half earned more. Police, fire, and ambulance dispatchers earned an average of \$8.48 in 1996; half of the dispatchers earned less than \$8.55 per hour, and half earned more.

**National:** In 1994, the median wage of nonsupervisory police officers and detectives was about \$16.35 per hour. The highest paid 10% earned about \$27.00 an hour and the lowest paid 10% were paid less than \$8.65 an hour. Generally, salaries tend to be higher in larger, more urban jurisdictions that usually have bigger police departments.

Total earnings frequently exceed the stated salary due to payments for overtime, which can be significant, especially during criminal investigations or when police are needed for crowd control during sporting events or political rallies.

**JCCC Program Completers:** An average hourly wage of \$14.23 was reported by 1996-97 police academy graduates responding to the January 1998 short-term follow-up study who were working full-time as police officers. Administration of justice program completers responding to the 1998 short-term follow-up study of the Class of 1996-97 who were working full-time in a related job reported average hourly earnings of \$13.00.

An average hourly wage of \$17.42 was reported by 1993-94 police academy graduates and \$15.32 was reported by the administration of justice program completers who responded to the 1998 long-term follow-up study and were working full-time in a related job.

### **JCCC Placement Information**

Two out of three of the 1996-97 administration of justice program completers responding to the January 1998 follow-up study were employed in jobs related to administration of justice; the remainder were all employed in unrelated jobs. However, all of the police academy graduates were employed in jobs related to their police academy training.

Six of the ten administration of justice program completers and all of the police academy graduates responding to the 1998 long-term follow-up study of 1993-94 completers were working in a related job.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

## AUTOMOTIVE TECHNOLOGY

Mechanic careers are attractive to many because they afford the opportunity for good pay and the satisfaction of highly skilled work with one's hands. Employment opportunities for automotive mechanics are expected to increase about as fast as the average for all occupations through the year 2006. The growing complexity of automotive technology necessitates that cars be serviced by skilled workers, contributing to the growth in demand for highly trained mechanics. Automotive mechanics presents an excellent opportunity for bright, motivated people who have a technical background and desire to make a good living. Persons whose training includes basic electronics skills should have the best opportunities.

JCCC's automotive technology program holds master certification under guidelines for the National Automotive Technicians Education Foundation/Automotive Service Excellence (ASE). ASE-certified training programs must meet strict industry standards for tools, equipment, course of study, facilities, and instructor qualifications.

### Employment Information

**Greater Kansas City Area:** Automotive mechanics held 4,708 jobs in the Greater Kansas City area in 1994, with 5,657 jobs projected by the year 2005 (+20%). About 213 average annual openings, including replacements, are anticipated.

**State:** Automotive mechanics held 7,260 jobs in Kansas in 1993, with 8,530 jobs projected by 2005 (+18%). Approximately 310 average annual openings are projected, including replacements.

**National:** Automotive mechanics held 775,000 jobs in 1996, with 871,000 jobs projected by 2006 (+12%). Approximately 112,000 average annual openings, including replacements, are anticipated.

### Salary Information

**Johnson County:** Automotive mechanics earned an average hourly wage of \$13.41 in Johnson County in 1996, the last year for which these data were available.

**Greater Kansas City Area:** Automobile mechanics employed in the Greater Kansas City area earned an average hourly wage of \$15.85 in September 1997, with a middle range of \$12.00 to \$17.49 per hour.

**State:** Automotive mechanics in Kansas earned an average hourly wage of \$12.10 in 1996. Half of the automotive mechanics in the state earned less than \$11.81 per hour and half earned more.

***National:*** The median hourly wage of automotive mechanics who were wage and salary workers was \$11.95 in 1996. The lowest paid 10% earned less than \$6.25, and the top 10% earned more than \$21.25 per hour. Many experienced mechanics employed by automotive dealers and independent repair shops receive a commission related to the labor cost charged to the customer. Under this method, earnings depend on the amount of work completed by the mechanic.

***JCCC Program Completers:*** An average hourly wage of \$11.54 was reported by 1996-97 JCCC automotive technology program completers responding to the January 1998 short-term follow-up study who were working full-time in a job related to automotive technology.

An average hourly wage of \$13.07 was reported by 1993-94 JCCC automotive technology program completers working full-time in a related job who responded to the long-term follow-up study conducted in 1998.

### **JCCC Placement Information**

All of the automotive technology program completers responding to the 1998 short-term follow-up study of 1996-97 completers and 67% of those responding to the 1998 long-term study of 1993-94 completers were working in a job related to automotive technology. The remainder were working in an unrelated job.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

## AVIATION MAINTENANCE TECHNOLOGY

Employment of aircraft mechanics is expected to increase about as fast as the average for all occupations through the year 2006. Job prospects for aircraft mechanics are expected to vary among types of employers. Opportunities are likely to be the best at the smaller commuter and regional airlines, FAA repair stations, and in general aviation. Mechanics will face more competition for airline jobs because the high wages and travel benefits attract more qualified applicants than there are openings. Prospects will be best for applicants with significant experience. Mechanics who keep abreast of technological advances in electronics, composite materials, and other areas will be in greatest demand.

### Employment Information

**Greater Kansas City Area:** Aircraft mechanics and engine specialists held 1,785 jobs in the Greater Kansas City area in 1994. Approximately 1,779 jobs are projected by the year 2005, with an average of 55 annual openings due to replacements anticipated.

**State:** Aircraft mechanics and engine specialists held 950 jobs in Kansas in 1993, with 1,020 jobs projected by 2005 (+8%). Approximately 40 average annual openings are anticipated due to replacements.

**National:** Aircraft mechanics and engine specialists held about 137,000 jobs nationwide in 1996, with 155,000 jobs anticipated by 2006 (+13%). Approximately 12,000 average annual openings, including replacements, are anticipated.

### Salary Information

**State:** The average annual salary for aircraft mechanics in Kansas was \$28,538 in 1996. Half of the aircraft mechanics in the state earned less than \$29,494 and half earned more.

**National:** In 1996, the median annual salary of aircraft mechanics was about \$35,000. The top 10% of all aircraft mechanics earned over \$48,000 a year and the bottom 10% earned less than \$23,200. Mechanics who worked on jets generally earned more than those working on other aircraft, and earnings of airline mechanics generally were higher than mechanics working for other employers.

**JCCC Program Completers:** Salaries of respondents to recent short-term follow-up studies of aviation maintenance technology completers varied considerably, from \$10,400 to \$31,200 per year. An average annual wage of \$22,090 was reported by the aviation maintenance program completers who responded to the 1997 follow-up study of 1995-96 career program completers, and the one respondent to the 1998 long-term follow-up study of 1993-94 completers reported an annual wage of \$32,240.



## **JCCC Placement Information**

None of the aviation maintenance technology program completers responded to the 1998 short-term follow-up study of 1996-97 career program completers. However, two of the three 1995-96 aviation maintenance program completers who responded to the 1997 follow-up study were working in related jobs. Of the JCCC aviation maintenance technology completers responding to earlier follow-up studies, only 50% were employed in a job related to aviation maintenance and the remainder were employed in unrelated jobs. The one respondent to the 1998 long-term follow-up of 1993-94 completers was also employed in a related job.

**Note.** Because the aviation maintenance technology program is a cooperative effort through the Metropolitan Community College District, salary and placement data are collected primarily on students initiating their studies at JCCC and are thus incomplete and may not accurately reflect salary and placement possibilities in this career field.

## CHEF APPRENTICE

Overall employment of chefs, cooks, and other kitchen workers is expected to increase about as fast as the average for all occupations through the year 2006. As the number of families grows and as the more affluent, 55-and-older population increases rapidly, demand will grow for restaurants that offer table service and more varied menus--requiring more higher-skilled cooks and chefs. To achieve the level of skill required of an executive chef or cook in a fine restaurant, many years of training and experience are necessary. Culinary courses are offered by 700 schools across the nation, and as of 1996 the American Culinary Federation had accredited just 100 of these programs.

Certification provides valuable formal recognition of the skills of a chef or cook. The chef apprenticeship program at JCCC is sponsored by the American Culinary Federation Educational Institute and the U.S. Department of Labor. Students must successfully complete all entry-level examinations as prescribed by the Apprenticeship Committee of the American Culinary Federation Education Institute.

### Employment Information

**Greater Kansas City Area:** Approximately 6,509 restaurant cooks were employed in the Greater Kansas City area in 1994, with 7,704 jobs projected by the year 2005 (+18%). About 273 average annual openings are anticipated, including replacements.

**State:** Restaurant cooks held 6,210 jobs in Kansas in 1993, with 8,250 jobs projected by 2005 (+33%). Approximately 320 average annual openings, including replacements, are anticipated.

**National:** Restaurant cooks held approximately 727,000 jobs in 1996, with 833,000 jobs projected by 2006 (+15%). Approximately 236,000 average annual openings, including replacements, are anticipated.

### Salary Information

**JCCC Career Program Completers:** An average annual salary of \$26,208 was reported by the 1996-97 chef apprentice program completers responding to the January 1998 short-term follow-up study, and an average annual salary of \$29,557 was reported by the 1993-94 chef apprentice program completers working full-time in a related job who responded to the long-term follow-up study conducted in 1998.

**Johnson County:** Restaurant cooks employed in Johnson County in 1996 earned an average annual wage of \$16,598 according to a study conducted by the State of Kansas.

**Greater Kansas City Area:** Unfortunately, published data on salaries for chefs is incorporated into a category called "cooks." According to available sources, cooks

earned an average annual salary of \$17,202 in September 1997. The lowest paid 10% earned minimum wage, and the highest paid 10% earned over \$22,194 per year.

However, a report issued in 1991 by the Hotel and Motel Association of Greater Kansas City reported salaries for banquet chefs ranging from \$23,000 to \$28,000 at some locations, and from \$29,000 to \$42,000 at others. Salaries for executive chefs ranged from \$16,000 to \$20,000 at some locations, and from \$38,600 to \$58,000 at others. Salaries for pastry chefs ranged from \$20,000 to \$24,000 at some locations, and from \$32,000 to \$42,000 at others. Coffee shop chef salaries ranged from \$13,000 to \$19,200 at some locations, and from \$25,000 to \$38,000 at others.

**State:** The average annual salary for restaurant cooks in Kansas was under \$13,624 according to a 1996 study conducted by Kansas Labor Market Information Services.

**National:** Wages are generally highest in elegant restaurants and hotels, where many executive chefs earn over \$38,000 annually. However, according to a 1995 survey conducted by the National Restaurant Association, most cooks, including the bread and pastry bakers, earn between \$12,480 and \$16,640 per year.

**JCCC Program Completers:** Chef apprentice program completers responding to the 1998 short-term follow-up study reported earning an average of \$26,208 per year. On the average, males earned \$28,392 and females earned \$21,840. Chef apprentice program completers responding to the 1998 long-term follow-up of 1993-94 completers reported an average annual salary of \$29,557.

### **JCCC Placement Information**

Three of the five chef apprentice program completers responding to the 1998 short-term follow-up of 1996-97 completers and all of the respondents to the 1998 long-term follow-up study of the 1993-94 completers were employed in a related job.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers. Caution should also be exercised when interpreting local, state and national salary data as these data do not differentiate between salaries of postsecondary chef apprentice career program completers and wages earned by less qualified cooks.

## CIVIL ENGINEERING TECHNOLOGY

Overall, employment of engineering technicians is expected to increase as fast as the average for all occupations through the year 2006. However, the growing availability and use of advanced technologies, such as computer-aided design and drafting and computer simulation, will continue to increase productivity and impact employment growth. As technology becomes more sophisticated, employers continue to look for technicians who are skilled in new technology and require a minimum of additional job training. Opportunities should be best for individuals who have completed a 2-year program in engineering technology.

### Employment Information

**Greater Kansas City Area:** Civil engineering technicians held 585 jobs in the Greater Kansas City area in 1994. Approximately 707 jobs are projected by the year 2005 (+21%), with 22 average annual openings, including replacements, anticipated.

**State:** Civil engineering technicians held 1,700 jobs in Kansas in 1993, with 2,000 jobs projected by 2005 (+18%). Approximately 60 average annual openings are projected due to replacements.

**National:** Engineering technicians held approximately 698,000 jobs in 1996, with 767,000 jobs are projected by 2006 (+10%). Approximately 96,000 average annual openings, including replacements, are anticipated.

### Salary Information

**Johnson County:** Civil engineering technicians and technologists employed in Johnson County, Kansas earned an average annual salary of \$34,736 in 1996.

**Greater Kansas City Area:** Entry-level civil engineering technicians employed in the Greater Kansas City area earned a median annual salary of \$18,200 in September 1996, and experienced civil engineering technicians at level V averaged \$42,276 per year.

**State:** Civil engineering technicians and technologists in Kansas earned an average annual salary of \$29,744 in 1996. Half of those employed as civil engineering technicians and technologists earned less than \$28,642 and half earned more.

**National:** According to a survey of workplaces in 160 metropolitan areas, engineering technicians at the most junior level had median earnings of about \$20,200 in 1995, with the middle half earning between \$17,700 and \$22,800 per year. Engineering technicians with more experience and the ability to work with little supervision had median earnings of about \$32,700, and those in supervisory or most senior level positions earned about \$54,800.

***JCCC Career Program Completers:*** The most recent salary information received from civil engineering technology program completers employed full-time in a related job was in January 1996. These 1994-95 career program completers reported an average annual salary of \$22,880. Only one civil engineering technology program completer responded to the 1997 short-term follow-up study and one to the 1998 study, and unfortunately neither of those respondents chose to provide salary information. Respondents to the 1998 long-term follow-up of 1993-94 completers reported an average annual salary of \$34,570.

### **JCCC Placement Information**

The one respondent to the 1998 follow-up study of the 1996-97 career program completers, and all of the respondents to most of the previous short-term follow-up studies who had completed the civil engineering technology program were working in related jobs, as were all of the respondents to the 1998 long-term follow-up of 1993-94 completers.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

## COMMUNICATION DESIGN

Employment of visual artists is expected to grow faster than the average for all occupations through the year 2006. Demand for graphic artists should remain strong as producers of information, goods, and services put increasing emphasis on visual appeal in product design, advertising, marketing, and television. The explosive growth of the Internet is expected to provide many additional opportunities for graphic artists. The glamorous and exciting image of graphic and fine arts fields attracts many talented people with a love for drawing and creative ability. As a result, the supply of aspiring artists will continue to exceed the number of job openings, resulting in keen competition for both salaried jobs and freelance work. Talented artists who have developed a mastery of artistic techniques and skills, including computer skills, will have the best job prospects.

### Employment Information

**Greater Kansas City Area:** Artists and commercial artists held 2,291 jobs in the Greater Kansas City area in 1994. Approximately 2,767 jobs are projected by the year 2005 (+21%), with 87 average annual openings anticipated, including replacements.

**State:** Artists and commercial artists held 2,050 jobs in Kansas in 1995, with 2,520 jobs projected by 2005 (+23%). Approximately 80 average annual openings, including replacements, are anticipated.

**National:** About 276,000 artists and commercial artists were employed nationwide in 1996, with 354,000 jobs projected by 2006 (+28%). Approximately 54,000 average annual openings, including replacements, are anticipated.

### Salary Information

**Johnson County:** Artists and related workers in Johnson County earned an average annual salary of \$26,104 in 1996.

**Greater Kansas City Area:** Artists and commercial artists earned an average annual salary of \$22,963 in 1994, the last year for which data were available. The highest reported salary was \$41,080 and the lowest was \$10,920 per year.

**State:** The average annual salary for artists and related workers in Kansas was \$23,587 in 1996. Half of those employed in this occupation earned less than \$22,984 per year and half earned more.

**National:** The median annual salary for visual artists who work full-time was about \$27,100 in 1996. The middle 50% earned between \$20,000 and \$36,400 per year. The top 10% earned more than \$43,000, and the bottom 10% earned less than \$15,000.

***JCCC Career Program Completers:*** An average annual salary of \$26,915 was reported by 1996-97 communications design program completers responding to the January 1998 short-term follow-up study who were working full-time in a job related to communications design. Males reported an average salary of \$26,208 and females averaged \$27,373 per year.

An average annual salary of \$41,538 was reported by 1993-94 communications design program completers working full-time in a related job who responded to the long-term follow-up study conducted in 1998. Males reported an average annual salary of \$54,246 and females averaged \$33,904 per year.

### **JCCC Placement Information**

Eight out of ten 1996-97 communications design program completers responding to the January 1998 short-term follow-up study were employed in a job related to communications design. Five percent were working in an unrelated job, 5% were pursuing additional education, and 10% were unemployed at the time the study was conducted.

Nearly 70% of the 1993-94 communications design program completers contacted in 1998 were employed in jobs related to communications design; 15% were working in an unrelated job, approximately 8% were unemployed, and 8% were out of the labor force altogether.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

## COMPUTER INFORMATION SYSTEMS

Employment of computer programmers is expected to grow faster than the average for all occupations through 2006. However, as programming tasks become more complex and increasingly sophisticated skills and experience are demanded by employers, graduates of 2-year programs, and people with less than a 2-year degree or its equivalent in work experience, should face stronger competition for programming jobs. Programmers will also continue to face increasing competition from programming businesses overseas where more of the routine work can be outsourced at a lower cost. Prospects should be best for those with knowledge of and experience working with a variety of programming languages and tools, particularly C++ and other object oriented languages--such as Smalltalk, Visual Basic, Ada, and Java--as well as newer, domain-specific languages that apply to computer networking, data base management, and Internet applications.

### Employment Information

**Greater Kansas City Area:** Computer programmers and programmer aides held 4,666 jobs in 1994. Approximately 5,209 jobs are projected by the year 2005 (+12%), with 185 average annual openings anticipated, including replacements.

**State:** Computer programmers and aides held 4,300 jobs in Kansas in 1993, with 4,640 jobs projected by 2005 (+8%). Approximately 150 average annual openings, including replacements, are anticipated. Computer support specialists held 890 jobs in Kansas in 1993, with 1,660 jobs projected by 2005 (+87%), and 80 average annual openings, including replacements.

**National:** Database administrators, computer support specialists, and all other computer scientists (excluding computer engineers, and systems analysts) held 212,000 jobs in 1996, with 461,000 jobs projected through 2006 (+118%). Approximately 60,000 average annual openings, including replacements, are anticipated. Computer programmers held 568,000 jobs in 1996, with 697,000 jobs projected by 2006 (+23%). Approximately 60,000 average annual openings, including replacements, are anticipated.

### Salary Information

**Johnson County:** Computer programmers earned an average annual salary of \$47,195 in Johnson County in 1996. Database administrators averaged \$42,869 and computer support specialists reported an average salary of \$53,019 per year.

**Greater Kansas City Area:** The annual salary for computer programmers throughout the Greater Kansas City area in September 1997 was \$42,744. The lowest 10% earned less than \$29,494, and the highest 10% earned more than \$59,509 per year.



**State:** The average annual salary for computer programmers in Kansas was \$42,494 in 1996. Database administrators earned an average annual salary of \$36,587 and computer support specialists averaged \$40,144 per year.

**National:** Median earnings of programmers who worked full-time in 1996 were about \$40,100 per year. The lowest paid 10% earned less than \$22,700, and the highest paid 10% earned more than \$65,200. According to Robert Half International, Inc., starting salaries ranged from \$32,500 to \$39,000 for programmers and \$47,500 to \$60,000 for systems programmers in large establishments in 1997. Starting salaries for programmers in small establishments ranged from \$28,000 to \$37,000.

**JCCC Career Program Completers:** An average annual salary of \$28,995 was reported by 1996-97 JCCC computer information systems program completers responding to the January 1998 short-term follow-up study who were working full-time in a job related to computer information systems. Males reported an average annual salary of \$30,576 compared to \$28,122 reported by females. An average annual salary of \$44,054 was reported by 1993-94 computer information systems program completers working full-time in a related job who responded to the long-term follow-up study conducted in 1998. Male completers responding to the study reported average earnings of \$50,752 compared to \$37,357 reported by female respondents.

### **JCCC Placement Information**

Nearly 92% of the 1996-97 computer information systems program completers responding to the January 1998 short-term follow-up study were working in a job related to computer information systems. Nearly 84% of the 1993-94 computer information systems program completers contacted for the long-term follow-up study conducted in 1998 were working in related jobs, 13% were employed in unrelated jobs and the remainder were unemployed and looking for work.

**Note.** Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

## CONSTRUCTION MANAGEMENT

Employment of construction managers is expected to increase as fast as the average for all occupations through the year 2006 as the level of construction activity and complexity of construction projects continues to grow. Employers prefer applicants with previous construction work experience who can combine a strong background in building technology with proven supervisory or managerial skills. Advances in building materials and construction methods and the growing number of multipurpose buildings, electronically operated "smart" buildings, and energy-efficient structures will further add to the demand for more construction managers. Employment of construction managers can be sensitive to the short-term nature of many construction projects and cyclical fluctuations in construction activity.

### Employment Information

**Greater Kansas City Area:** About 1,412 construction managers were employed in the Greater Kansas City area in 1994, with 1,871 jobs projected by 2005 (+33%). Approximately 72 average annual openings, including replacements, are anticipated.

**State:** Construction managers held 1,840 jobs in Kansas in 1993, with 2,410 jobs projected by 2005 (+31%). Approximately 90 average annual openings, including replacements, are anticipated.

**National:** Construction managers held 249,000 jobs nationwide in 1996, with 294,000 jobs projected by 2006 (+18%). Approximately 32,000 average annual openings, including replacements, are anticipated.

### Salary Information

**Johnson County:** The average annual salary for construction managers in Johnson County was \$52,354 in 1996.

**Greater Kansas City Area:** Construction managers earned an average annual salary of \$29,557 in 1994. The highest reported salary was \$41,995 and the lowest was \$21,840 per year.

**State:** The average annual salary for construction managers in Kansas was \$41,226 in 1996. Half of those employed as construction managers earned less than \$37,544 and half earned more.

**National:** Earnings of salaried construction managers and incomes of self-employed contractors vary depending upon the size and nature of the construction project, its geographic location, and economic conditions. Based on limited information available, the average salary for construction managers in 1996 ranged from around \$40,000 to

\$100,000 annually. Many salaried construction managers receive benefits such as bonuses, use of company motor vehicles, paid vacations, and life and health insurance.

### **JCCC Salary and Placement Information**

Only two construction management program completers responded to the 1998 short-term follow-up study of 1996-97 career program completers. One was employed in a related job and one was pursuing additional education. No wage and salary information was provided for the one respondent working in a related job.

This program has not been in existence long enough to obtain responses to the long-term follow-up study of the Class of 1993-94 conducted in the summer of 1998.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

## CORRECTIONAL SERVICES

Employment of correctional officers is expected to increase faster than the average for all occupations through the year 2006 as additional officers are hired to supervise and control a growing inmate population. Increasing public concern about the spread of crime and illegal drugs--resulting in more police making more arrests and getting more convictions--and the adoption of mandatory sentencing guidelines calling for longer sentences and reduced parole for inmates will spur demand for correctional officers. Some employment opportunities also may arise in the private sector as public authorities opt to contract with private companies to provide and staff corrections facilities.

Correctional institutions increasingly seek correctional officers with postsecondary education, particularly in psychology, criminal justice, police science, criminology, and related fields.

### Employment Information

**Greater Kansas City Area:** A total of 969 correction officers and jailers were employed in the Greater Kansas City area in 1994, with 1,514 projected by the year 2005 (+56%). Approximately 65 average annual openings are anticipated, including replacements.

**State:** A total of 3,260 correction officers were employed in Kansas in 1993, with 4,930 jobs projected by 2005 (+51%). Approximately 190 average annual openings, including replacements, are anticipated.

**National:** Approximately 320,000 correction officers held jobs in 1996, with 423,000 jobs projected by 2006 (+32%). About 51,000 average annual openings are anticipated, including replacements.

### Salary Information

**Greater Kansas City Area:** The median hourly wage for correction officers in the Greater Kansas City area was \$10.55 in September 1996, with a median range of \$9.43 to \$11.58 per hour.

**State:** The average hourly wage for correction officers and jailers was \$10.88 in Kansas in 1996. Half of the corrections officers and jailers in the state earned less than \$10.75 per hour, and half earned more.

**National:** According to a 1996 survey in *Corrections Compendium*, a national journal for corrections professionals, federal and state correctional officers' wages averaged about \$12.55 and ranged from a low of \$8.32 in South Carolina to a high of \$20.05 in Rhode Island. The average hourly wage for correctional officers employed by the federal government was \$16.13 in 1997.

## **JCCC Salary and Placement Information**

Correctional services is a co-operative program offered at Longview Community College as an option within the JCCC Administration of Justice/Law Enforcement program. Salary and placement information for correctional services program completers is therefore incorporated into data reported for Administration of Justice.

## COSMETOLOGY

Overall employment of cosmetologists is expected to grow about as fast as the average for all occupations through 2006. The number of part-time and self-employed, booth-renting cosmetologists should continue to grow, creating a dynamic labor market with many opportunities for people to enter the field, particularly workers who are licensed to provide a broad range of cosmetology services. Demand for manicurists and for cosmetologists who are trained in nail care will be particularly strong. In addition, cosmetologists who are trained to provide specialized services such as skin care and manicurists who learn new skills like air brushing should be able to attract more clients.

### Employment Information

**Greater Kansas City Area:** Cosmetologists held 4,390 jobs in the Greater Kansas City area in 1994, with 4,797 jobs projected by the year 2005 (+9%). Approximately 140 average annual openings, including replacements, are anticipated.

**State:** Hairdressers and hairstylists held 20,370 jobs in Kansas in 1993, with 20,930 jobs projected by 2005 (+3%). Approximately 540 average annual openings are expected, including replacements. Manicurists held 2,460 jobs in Kansas in 1993, with 2,550 jobs projected by 2005 (+4%). Approximately 70 average annual openings, including replacements, are anticipated.

**National:** Cosmetologists held about 641,000 jobs in 1996, with 720,000 jobs projected by 2006 (+12%). Approximately 79,000 average annual openings, including replacements, are anticipated.

### Salary Information

**Johnson County:** Hairdressers, hairstylists, and cosmetologists working in Johnson County earned an average hourly wage of \$9.20 in 1996.

**Greater Kansas City Area:** Hairdressers, hairstylists and cosmetologists working in Johnson, Leavenworth, Miami, and Wyandotte Counties earned a median hourly wage of \$8.74 in 1996.

**State:** Hairdressers, hairstylists and cosmetologists in Kansas earned an average hourly wage of \$7.83 in 1996.

**National:** Barbers and cosmetologists receive income either from commissions or wages and tips. Their median hourly wage in 1996 was \$7.25, significantly lower than the \$12.25 for all workers. However, tips can substantially increase these earnings in shops where clientele tend to tip generously. Earnings for entry-level workers are

generally lower, ranging from minimum wage to considerably more in prestigious or exceptionally busy salons.

***JCCC Career Program Completers:*** An average hourly wage of \$14.00 was reported by 1996-97 JCCC cosmetology program completers responding to the January 1998 short-term follow-up study who were working full-time in a job related to cosmetology. This program has not been offered at JCCC for a sufficient length of time to offer results from the long-term follow-up studies of JCCC career program completers.

### **JCCC Placement Information**

All of the cosmetology program completers responding to the 1998 short-term follow-up study of JCCC career program completers were employed in a related job. This program has not been offered at JCCC for a sufficient length of time to offer results from the long-term follow-up studies of JCCC career program completers.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

## DENTAL HYGIENE

Employment of dental hygienists is expected to grow much faster than the average for all occupations through the year 2006 in response to increasing demand for dental care and the greater substitution of hygienists for services previously performed by dentists. Job prospects are expected to remain very good unless the number of dental hygienist program graduates grows much faster than during the last decade and results in a much larger pool of qualified applicants, or if more states pass legislation allowing less qualified dental assistants to perform duties previously within the purview of dentists or trained dental hygienists only.

### Employment Information

**Greater Kansas City Area:** Dental hygienists held 787 jobs in the Greater Kansas City area in 1994. Approximately 1,098 jobs are projected through the year 2005 (+40%), with 43 average annual openings, including replacements, anticipated.

**State:** Dental hygienists held 1,040 jobs in Kansas in 1995, with 1,570 jobs projected by 2005 (+66%). Approximately 60 average annual openings, including replacements, are anticipated.

**National:** Dental hygienists held 133,000 jobs in 1996, with 197,000 jobs projected by 2006 (+48%). Approximately 16,000 average annual openings, including replacements, are anticipated. Dental hygienists are listed among the fastest growing occupations between 1996 and 2006.

### Salary Information

**Johnson County:** Dental hygienists earned an average hourly wage of \$21.67 in Johnson County in 1996.

**Greater Kansas City Area:** Dental hygienists employed in Johnson, Leavenworth, Miami, or Wyandotte Counties earned an average hourly wage of \$18.47 in 1996. Half earned more than \$19.00 per hour, and half earned less.

**Kansas:** Dental hygienists employed in Kansas earned an average hourly wage of \$20.25 in 1996.

**National:** Earnings of dental hygienists are affected by geographic location, employment setting, and education and experience. Dental hygienists who work in private dental offices may be paid on an hourly, daily, salary, or commission basis. According to the



American Dental Association, dental hygienists who worked 32 hours a week or more in a private practice averaged between \$19.00 and \$24.00 per hour in 1995.

***JCCC Career Program Completers:*** An average hourly wage of \$22.30 was reported by 1996-97 JCCC dental hygiene program completers responding to the January 1998 short-term follow-up study who were working full-time in a job related to dental hygiene. An average hourly wage of \$24.71 was reported by 1993-94 dental hygiene program completers working full-time in a related job who responded to the long-term follow-up study conducted in 1998.

### **JCCC Placement Information**

All of the dental hygiene program completers responding to the 1998 short-term study and 85% of those responding to the long-term follow-up study of 1993-94 completers were employed in a related job.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

## DRAFTING TECHNOLOGY

Employment of drafters is expected to change little through the year 2006. Opportunities should be best for individuals who have at least 2 years of training in a technically strong drafting program and who have considerable skill and experience using CAD systems. As technology continues to advance, employers will look for drafters who can combine a strong background in fundamental drafting principles with a higher level of technical sophistication and an ability to apply this knowledge to a broader range of responsibilities. A growing number of drafters should continue to be employed on a temporary or contract basis, as more companies turn to the personnel supply services industry to meet their changing needs.

### Employment Information

**Greater Kansas City Area:** Drafters held 2,303 jobs in the Greater Kansas City area in 1994. Approximately 2,227 jobs are projected by the year 2005 (-3%), with 43 average annual openings due to replacements anticipated.

**State:** Drafters held 2,470 jobs in Kansas in 1993, with 2,250 jobs projected by 2005 (-9%). Nonetheless, approximately 30 average annual openings are anticipated due to replacements.

**National:** Drafters held about 310,000 jobs in 1996, with 317,000 jobs projected by 2006 (+2%). Approximately 30,000 average annual openings are anticipated due primarily to the need for replacements.

### Salary Information

**Johnson County:** Drafters employed in Johnson County earned an average hourly wage of \$13.56 in 1996.

**Greater Kansas City Area:** The median hourly wage for drafters employed in the Greater Kansas City area in September 1996 was \$11.50, with a middle range of \$10.80 to \$14.20 per hour.

**State:** The average hourly wage for drafters in Kansas was \$13.12 per hour in 1996.

**National:** Median hourly earnings of drafters who worked year round, full-time were about \$15.00 in 1996. The top 10% earned more than \$24.40 per hour, and the bottom 10% earned less than \$9.14. According to a survey of workplaces in 160 metropolitan areas, the most experienced drafters had median earnings of about \$19.66 in 1995, with the middle half earning between \$17.36 and \$22.02 per hour.

**JCCC Career Program Completers:** An average hourly wage of \$13.18 was reported by the 1996-97 drafting program completers employed full-time in a related job who

responded to the January 1998 short-term follow-up study of JCCC career program completers.

An average hourly wage of \$15.00 was reported by the 1993-94 drafting program completers working full-time in a related job who responded to the long-term follow-up study conducted in 1998.

### **JCCC Placement Information**

Over 90% of respondents to the 1998 short-term follow-up of 1996-97 drafting program completers and 85% of respondents to the 1998 long-term follow-up of 1993-94 completers were working in a job related to drafting. The remainder were employed in unrelated jobs or out of the labor force altogether.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

## EARLY CHILDHOOD EDUCATION

Employment of preschool teachers and child-care workers is projected to increase faster than the average for all occupations through the year 2006. Although the number of children under 5 years of age is expected to decline slightly, the proportion of youngsters in day care and preschool will increase, due at least in part to the continuing high labor force participation among women of childbearing age. High turnover, combined with the increased demand for preschool teachers and child-care workers, is expected to create many openings. Qualified persons who are interested in this work should have little trouble finding and keeping a job.

The training and qualifications required of preschool teachers and child-care workers vary widely. Each state has its own licensing requirements that regulate caregiver training, ranging from a high school diploma to community college courses to a college degree in child development or early childhood education. Some states require continuing education for workers in this field. JCCC has an articulation agreement for transfer into a bachelor's degree program at Kansas State University with little or no loss of credits, and is in the process of finalizing a similar agreement with the University of Kansas, Ottawa University, and St. Mary.

### Employment Information

**Greater Kansas City Area:** Child-care providers held 4,994 jobs in the Greater Kansas City Area in 1994, with 6,259 jobs projected by the year 2005 (+25%). Approximately 169 annual openings are anticipated, including replacements.

**State:** Child-care providers held 18,670 jobs in Kansas in 1993, with 20,680 jobs projected by the year 2005 (+11%). Approximately 370 annual openings are anticipated; 160 from growth in this field and 210 from the need for replacements.

**National:** Child-care providers held 1,105,000 jobs nationwide in 1996, with 1,379,000 jobs projected by the year 2006 (+25%). Approximately 439,000 annual average job openings, including replacements, are anticipated.

### Salary Information

**Greater Kansas City Area:** Early childhood teachers' assistants earned \$6.75 per hour on the average, and child care providers earned \$7.30 in September 1997. The lowest paid 10% earned less than \$6.00, and the highest paid 10% earned more than \$12.00 per hour.

**State:** Child-care providers in Kansas earned an average of \$5.83 per hour in 1996, while preschool teachers averaged \$8.02 per hour.

**National:** Pay for child-care providers varies widely, depending on the employer and educational attainment of the worker. Although the pay has been generally very low,

more education means higher earnings in some cases. In 1996, the median hourly wage of full-time salaried child-care workers was \$6.25. The middle 50% earned between \$4.75 and \$7.75, and the top 10% earned at least \$9.75 per hour.

### **JCCC Salary and Placement Information**

This program has not been offered at JCCC for a sufficient length of time to provide data from follow-up studies of JCCC career program completers.

## ELECTRICAL TECHNOLOGY

Employment of electricians is expected to increase more slowly than the average for all occupations through 2006. However, job opportunities for skilled electricians are expected to be good as the growth in demand out paces the supply of workers trained in this craft. There is expected to be a shortage of skilled workers during the next decade because of the anticipated smaller pool of young workers entering training programs and the need to replace workers who transfer to other occupations, retire, or leave the labor force for other reasons. Because of their lengthy training and relatively high earnings, a smaller proportion of electricians than other craft workers leave their occupation each year, but the number of retirements is expected to rise as more electricians reach retirement age.

Most localities require electricians to be licensed. Although licensing requirements vary from area to area, electricians generally must pass an examination that tests their knowledge of electrical theory, the National Electrical Code, and local electric and building codes. The JCCC program prepares students for this type of examination.

### Employment Information

**Greater Kansas City Area:** Electricians held 3,231 jobs in the Greater Kansas City area in 1994, with 3,474 jobs projected by the year 2005 (+8%). Approximately 94 average annual openings, including replacements, are anticipated.

**State:** Electricians held 4,810 jobs in Kansas in 1993, with 5,000 jobs projected by 2005 (+4%). Approximately 130 average annual openings, including replacements, are expected.

**National:** Electricians held 575,000 jobs in 1996, with 627,000 jobs projected by 2006 (+9%). An average of 80,000 annual openings, including replacements, are anticipated.

### Salary Information

**Johnson County:** Electricians working in Johnson County earned an average hourly wage of \$19.68 in 1996.

**Greater Kansas City Area:** Electricians employed in the Greater Kansas City area earned a median hourly wage of \$18.50 in September 1997, with a middle range of \$15.40 to \$23.40 per hour. The lowest paid 10% earned less than \$13.40, and the highest paid 10% earned more than \$23.43 per hour.

The average entry-level wage for electricians employed throughout Johnson, Leavenworth, Miami, and Wyandotte Counties was \$17.83 in 1996; half of the electricians in this area earned more than \$19.76 and half earned less.

**State:** The average hourly wage for electricians in Kansas was between \$15.56 in 1996. Half of the electricians employed in Kansas earned more than \$15.88, and half earned less.

**National:** The median hourly wage for full-time electricians who were not self-employed was \$15.50 in 1996. The middle 50% earned between \$11.70 and \$21.00 per hour; the lowest paid 10% earned less than \$8.50 and the highest paid 10% earned more than \$25.45 per hour. Depending on experience, apprentices usually start at between 30% and 50% of the rate paid to experienced electricians.

**JCCC Career Program Completers:** An average hourly wage of \$15.08 was reported by the 1996-97 electrical technology program completers employed full-time in a related job who responded to the January 1998 short-term follow-up study of JCCC career program completers.

### **JCCC Placement Information**

All of the electrical technology program completers who responded to the 1998 short-term follow-up study of JCCC career program completers were employed in a job related to electrical technology. This program has not been offered at JCCC long enough for inclusion in the long-term follow-up studies.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

## ELECTRONICS ENGINEERING TECHNOLOGY

Overall, employment of engineering technicians in general is expected to increase as fast as the average for all occupations through the year 2006, but employment of electrical and electronics engineering technicians is expected to grow slightly faster than the overall rate for all engineering technicians. Increasing demand for more sophisticated electrical and electronic products, as well as the expansion of these products and systems into all areas of industry and manufacturing processes, will contribute to stronger employment growth in this specialty area. Employers continue to look for technicians who are skilled in new technology and require a minimum of additional job training. Opportunities should be best for individuals who have completed a 2-year program in engineering technology.

### Employment Information

**Greater Kansas City Area:** Electrical/electronics and related technicians held 1,828 jobs in the Greater Kansas City area in 1994. Approximately 2,053 jobs are projected by the year 2005 (+12%), with 60 average annual openings, including replacements, anticipated.

**State:** Electrical and electronics technicians held 1,790 jobs in Kansas in 1995, with 2,240 jobs projected by 2005 (+25%). Approximately 80 average annual openings, including replacements, are anticipated. Electromedical & biomedical repairers held 160 jobs in Kansas in 1993, with 220 jobs projected by 2005 (+38%).

**National:** Electrical and electronics technicians and technologists held about 297,000 jobs in 1996, with 341,000 jobs projected by 2006 (+15%). Approximately 37,000 average annual openings, including replacements, are anticipated.

### Salary Information

**Johnson County:** Electrical and electronics engineering technicians employed in Johnson County earned an average hourly wage of \$12.09 in 1996.

**Greater Kansas City Area:** Electrical and electronics technicians earned an average hourly wage of \$20.44 in the Greater Kansas City area in September 1997, with a middle range of \$18.00 to \$23.89 per hour.

**State:** The average hourly wage for electrical and electronics technicians in Kansas was \$15.56 in 1996. Half of these technicians earned less than \$15.63 per hour, and half earned more.

**National:** Engineering technicians at the most junior level had median hourly earnings of about \$9.71 in 1995, with the middle half earning between \$8.50 and \$11.00 an hour. Engineering technicians with more experience and the ability to work with little



supervision had median earnings of \$15.72, and those in supervisory or senior level positions earned about \$26.35 per hour. In the federal government, engineering technicians start at between \$7.45 and \$9.38, depending on their education and experience.

***JCCC Career Program Completers*** An average hourly wage of \$13.41 was reported by 1996-97 electronics engineering technology program completers responding to the January 1998 short-term follow-up study who were employed in a full-time related job. An average hourly wage of \$17.29 was reported by 1993-94 JCCC electronics engineering program completers responding to the 1998 long-term follow-up study who were working full-time in a job related to electronics.

### **JCCC Placement Information**

Nearly 89% of electronics engineering technology program completers who responded to the 1998 short-term follow-up study of 1996-97 completers were working in a job related to their JCCC career program, and the remainder were employed in unrelated jobs.

Nine out of ten 1993-94 electronics engineering technology program completers contacted in 1998 were employed in a job related to electronics engineering technology, and the remainder were working in unrelated jobs.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

**EMERGENCY MEDICAL SCIENCE:  
EMERGENCY MEDICAL TECHNOLOGY/EMT (BASIC)  
MOBILE INTENSIVE CARE TECHNOLOGY/MICT (PARAMEDIC)**

Employment of emergency medical technicians and paramedics is expected to grow much faster than the average for all occupations through 2006. Opportunities for EMT's are expected to be excellent in hospitals and private ambulance services, where pay and benefits usually are low. However, competition for jobs will be keen in fire, police, and rescue squad departments because of attractive pay and benefits and good job security. While new job openings will result from expansion of emergency medical services, most openings will occur because of this occupation's substantial replacement needs. Additional job openings will also occur as more states begin to allow EMT-Paramedics to perform primary care on the scene without transporting the patient to a medical facility.

### **Employment Information**

**Greater Kansas City Area:** Emergency medical technicians held 1,835 jobs in the Greater Kansas City area in 1994. Approximately 2,334 jobs are projected by the year 2005 (+27%), with 79 average annual openings, including replacements, anticipated.

**State:** Emergency medical technicians held 1,920 jobs in Kansas in 1993, with 2,660 jobs projected by 2005 (+39%). Approximately 120 average annual openings, including replacements, are anticipated.

**National:** Approximately 150,000 emergency medical technicians were employed nationwide in 1996, with 217,000 jobs projected by 2006 (+45%). About 26,000 average annual openings, including replacements, are anticipated.

### **Salary Information**

**Greater Kansas City Area:** Emergency medical technicians employed in the metropolitan area earned an average annual salary of \$22,714 in 1994. The highest paid reported salary was \$28,080 and the lowest was \$14,040 per year.

**State:** The average salary for emergency medical technicians in Kansas was \$18,845 in 1995. The lowest reported salary was under \$8,840, the highest was over \$32,926, and the average entry-level salary was \$13,000 per year.

**Regional:** Average 1997 annual salaries within the 6 state area comprising the South Central United States were: EMT-Basic, \$23,488; EMT-Intermediate, \$22,223, and Paramedic, \$26,874. Source: *Journal of Emergency Medical Services*, Nov. 1997.

**National:** According to the *Journal of Emergency Medical Services*, earnings of EMT's depend on the employment setting and geographic location as well as the individual's

training and experience. Average starting salaries in 1997 were \$21,202 for EMT-Basic, \$23,249 for EMT-Intermediate, and \$25,201 for EMT-Paramedic. Cross-trained EMT's in fire departments earned the highest salaries, averaging \$30,220 for EMT-Basic, \$31,782 for EMT-Intermediate, and \$33,760 for Paramedics.

**JCCC Career Program Completers:** An average annual salary of \$19,656 for EMT completers and \$25,792 for MICT (paramedic) completers working full-time in a related job were reported by respondents to the January 1998 short-term follow-up study of 1996-97 career program completers. Male EMT completers reported average earnings of \$20,779 compared to \$18,158 reported by females.

An average annual salary of \$30,826 for EMT's and \$28,413 for MICT's was reported by 1993-94 completers working full-time in a related job who responded to the long-term follow-up study conducted in 1998. Male EMT completers reported an average hourly wage of \$31,741 vs. \$28,683 for females.

### **JCCC Placement Information**

Approximately 47% of EMT and 100% of MICT program completers responding to the January 1998 short-term follow-up study of 1996-97 completers were working in a job related to emergency medical technology. Over 36% of EMT's were employed in an unrelated job, 11% were pursuing additional education, and 6% were unemployed at the time the survey was conducted. Eight out of ten of the 1993-94 EMT completers and all of the MICT completers responding to the long-term follow-up study conducted in 1998 were working in a related job.

**Note.** Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative all career program completers.

Skills and training requirements for EMT-basic, EMT-intermediate, and paramedic positions are available from the JCCC Office of Institutional Research (COM 305) or from the director for the Medical Intensive Care Technology program (SCI 110-D).

## FASHION MERCHANDISING

**(Note.** Since no separate occupational category was detailed for fashion merchandising in available sources, employment and salary information is provided for related occupations for which completers of this program may qualify.) Employment of purchasers and buyers is expected to increase more slowly than the average for all occupations through 2006. In retail trade, mergers and acquisitions have forced the consolidation of buying departments, eliminating jobs. In addition, larger retail stores are removing their buying departments from geographic markets and centralizing them at their headquarters, eliminating more jobs. Demand for buyers has also been negatively impacted by the increasing use of computers.

However, fashion merchandising program completers will always find ample employment opportunities as retail salespersons and have better opportunities for advancement than nonprogram completers. Overall, although employment of retail sales worker supervisors and managers is expected to grow more slowly than the average for all occupations through the year 2006, employment of retail sales workers is expected to increase about as fast as the average due to anticipated growth in retail sales created by a growing population.

### Employment Information

**Greater Kansas City Area:** Wholesale and retail buyers held 842 jobs in the Greater Kansas City area in 1994. Approximately 840 jobs are projected by the year 2005, with 21 average annual openings anticipated due to the need for replacements. Retail salespersons held 28,115 jobs in the Greater Kansas City area in 1995. Approximately 31,867 jobs are projected by the year 2005 (+13%), with 1,188 average annual openings, including replacements, anticipated. First line sales supervisors held 18,130 jobs in 1994, with 21,262 jobs projected by the year 2005 (+17%). Approximately 611 average annual supervisory openings and 1,188 average annual retail sales openings, including replacements, are anticipated.

**State:** Wholesale and retail buyers held 1,610 jobs in Kansas in 1993, with 1,760 jobs projected by 2005 (+9%). Approximately 50 average annual openings, including replacements, are anticipated. Retail sales workers held 33,940 jobs in 1993, with 40,080 jobs projected by 2005 (+18%). Approximately 1,500 average annual openings are projected, including replacements.

**National:** Wholesale and retail buyers held 183,000 jobs in 1996, with the same number of jobs projected by 2006. However, approximately 48,000 average annual job openings are anticipated due to the need for replacements. Retail salespersons held nearly 4.1 million jobs in 1996, with 4.5 million jobs projected by 2006 (+10%). Approximately 1.3 million average annual openings, including replacements, are anticipated.

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## Salary Information

**Johnson County:** Wholesale and retail buyers earned an average hourly wage of \$20.81 in Johnson County in 1996, and retail salespersons earned \$8.29, on the average.

**Greater Kansas City Area:** Sales supervisors in the Greater Kansas City area earned an average of \$12.50 per hour in September 1997. The top 10% earned more than \$25.00 and the bottom 10% earned less than \$9.00 per hour.

**State:** The average wage for wholesale and retail buyers in Kansas was \$15.49 per hour in 1996. Retail salespersons earned \$7.30 per hour on the average in Kansas in 1996. er \$27.73 per hour. First-line sales supervisors earned an average hourly wage of \$12.75 per hour. The lowest wage reported for first-line sales supervisors was under \$5.12, the highest was over \$50.00, and the average entry-level wage was \$6.50 per hour.

**National:** Median hourly earnings of purchasers and buyers was \$15.96 in 1996; the lowest paid 10% averaged less than \$8.85, and the highest paid 10% averaged more than \$30.00 an hour. Supervisors and managers of sales workers in the retail trade industry who usually worked full time had median hourly earnings of \$11.73 in 1996; the top 10% earned more than \$24.23 and the bottom 10% earned less than \$6.20 per hour.

**JCCC Career Program Completers:** An average hourly wage of \$8.59 was reported by 1996-97 JCCC fashion merchandising program completers responding to the January 1998 short-term follow-up study who were working full-time in a job related to fashion merchandising. An average hourly wage of \$10.98 was reported by 1993-94 fashion merchandising program completers responding to the 1998 long-term follow-up study who were employed full-time in a related job.

## JCCC Placement Information

Four of the five 1996-97 fashion merchandising program completers responding to the January 1998 short-term follow-up study were working in a job related to fashion merchandising, and the other one was pursuing additional education.

Over 83% of the 1993-94 fashion merchandising program completers contacted in 1998 were employed in a job related to fashion merchandising, and the rest were out of the labor force altogether.

**Note.** Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

## FIRE SCIENCE

Employment of firefighters is expected to increase more slowly than the average for all occupations through the year 2006 as fire departments continue to compete with other public service providers for funding. Most growth in employment will be due to an expected increase in the number of paid firefighter positions versus volunteer firefighters, because the increased level of specialized training required in this occupation makes it more difficult for volunteer firefighters to remain qualified. Turnover of firefighter jobs is unusually low, particularly for a hazardous occupation that requires a relatively limited investment in formal education. Nevertheless, most job openings are expected to result from the need to replace those who retire, stop working for other reasons, or transfer to other occupations.

### Employment Information

**Greater Kansas City Area:** About 1,640 workers were employed as firefighters in the Greater Kansas City area in 1994, with 1,988 positions anticipated by the year 2005 (+21%). On the average, 99 annual openings are anticipated, including replacements. Firefighting supervisors held 406 jobs in 1994, with 448 projected by the year 2005 (+10%). Approximately 21 average annual supervisory openings, including replacements, are anticipated.

**State:** Firefighters held 4,120 jobs in Kansas in 1993, with 4,990 jobs projected by 2005. Approximately 240 average annual openings, including replacements, are anticipated.

**National:** Approximately 293,000 workers were employed in firefighting occupations in 1996, with 308,000 jobs projected by 2006 (+5%). Approximately 18,000 average annual openings, including replacements, are anticipated.

### Salary Information

**Greater Kansas City Area:** Individuals employed in firefighter occupations in the Greater Kansas City area earned an average annual salary of \$30,971 in September 1997. The lowest paid 10% earned less than \$23,712, and the highest paid 10% earned more than \$31,928.

**State:** Firefighters in Kansas earned \$20,613 on the average in 1995. The lowest reported salary for Kansas firefighters was under \$8,840, the highest was over \$32,926, and the average entry-level salary was \$15,621 per year. Fire inspectors earned between \$29,016 and \$33,363 on the average. The lowest reported salary for fire inspectors was under \$24,856 and the highest was over \$43,576 per year. Fire fighting and prevention supervisors earned between \$30,638 and \$35,235 on the average in 1995. The lowest salary reported for fire supervisors was under \$10,650 and the highest was over \$50,128 per year.

***National:*** The median annual salary for firefighting occupations was \$34,216 in 1996. The middle 50% earned between \$26,676 and \$43,264; the lowest paid 10% earned less than \$20,124 and the highest paid 10% earned more than \$50,908. Fire lieutenants and fire captains may earn considerably more.

***JCCC Career Program Completers:*** An average annual salary of \$33,779 was reported by 1996-97 JCCC fire science program completers responding to the January 1998 short-term follow-up study who were working full-time in a job related to fire science.

An average annual salary of \$44,720 was reported by 1993-94 fire science program completers working full-time in a related job who responded to the long-term follow-up study conducted in 1998.

### **JCCC Placement Information**

Approximately 64% of the short-term completers and 86% of the long-term completers of the fire science program who responded to the 1998 studies were employed in a job related to fire science. The remainder were working in unrelated jobs.

**Note.** Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

## GROUNDS & TURF MANAGEMENT

Employment of landscaping, groundskeeping, nursery, greenhouse, and lawn service workers is expected to grow about as fast as the average for all occupations through the year 2006. Those interested in this occupation should find excellent job opportunities in the future because of high turnover and the need to replace workers who transfer to other occupations or leave the labor force. There are no national standards for gardeners and groundskeepers, but most states require certification for workers who apply pesticides. Certification requirements vary, but usually include passing a test on the proper and safe use and disposal of insecticides, herbicides, and fungicides. Some states also require that landscape contractors be licensed.

### Employment Information

**Greater Kansas City Area:** Gardeners and groundskeepers held 2,363 jobs in the Greater Kansas City area in 1994, with 2,739 jobs projected by 2005 (+16%). Approximately 67 average annual openings, including replacements, are anticipated. Lawn service managers held 90 jobs in 1994, with 104 jobs projected by 2005 (+16%) and approximately two openings per year anticipated, including replacements.

**State:** Gardeners and groundskeepers held 2,230 jobs in Kansas in 1993, with 2,710 jobs projected by 2005 (+22%). Approximately 70 average annual openings, including replacements, are anticipated.

**National:** Individuals in gardening, nursery, and greenhouse and lawn service occupations held 925,000 jobs nationwide in 1996, with 1.1 million jobs projected by 2006 (+20%). Approximately 225,000 average annual openings, including replacements, are anticipated. Lawn service managers alone held 55,000 jobs in 1996, with 67,000 jobs projected by 2006 (+22%). Approximately 7,000 average annual openings, including replacements, are anticipated.

### Salary Information

**Greater Kansas City Area:** Gardeners and groundskeepers working in the Greater Kansas City area earned a median hourly wage of \$12.28 in September 1997. The lower 25% earned less than \$7.48 per hour and the bottom 10% earned less than \$6.52.

**Johnson County:** On the average, gardeners and groundskeepers in Johnson County earned between \$7.56 and \$8.67 per hour in 1996. The highest reported wage was between \$13.76 and \$15.82, and the lowest was between \$4.25 and \$4.44 per hour. Lawn service managers earned an average hourly wage of \$14.38.

**State:** The average hourly wage for gardeners and groundskeepers in Kansas was between \$6.98 and \$8.01 in 1995. The lowest reported wage was under \$4.44, the



highest was over \$13.76, and the average entry-level wage was \$5.65 per hour. The average hourly wage for lawn service managers in Kansas was \$13.54 in 1996.

**National:** The median hourly wage of landscapers and groundskeepers was \$7.50 in 1996; the middle 50% earned between \$5.50 and \$10.25, the lowest paid 10% earned less than minimum wage, and the top 10% earned more than \$14.00 per hour.

Institutional grounds managers had median annual earnings of about \$38,900, lawn-care operators \$32,500, landscape contractors \$37,300, and golf course superintendents \$38,600 in 1996 according to a salary survey conducted by *Grounds Maintenance Magazine*.

### JCCC Salary and Placement Information

Grounds and turf management is a cooperative program offered through Longview Community College and has not been offered at JCCC for a sufficient length of time to provide data from follow-up studies of JCCC career program completers.

Note. Because the grounds and turf program is a cooperative effort through the Metropolitan Community College District, salary and placement data are collected primarily on students initiating their studies at JCCC and are thus incomplete. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

## HEALTH AIDE OCCUPATIONS

Job prospects for nursing aides should be good through the year 2006. Numerous openings will arise from a combination of fast growth and high turnover for this large occupation. Employment of nursing aides is expected to grow faster than the average for all occupations in response to an emphasis on rehabilitation and the long-term care needs of a rapidly aging population. Financial pressure on hospitals to release patients as soon as possible should produce more nursing home admissions, and modern medical technology will also increase employment opportunities for nursing aides. This technology, while saving and extending more lives, increases the need for long-term care provided by aides. As a result, nursing and personal care facilities are expected to grow very rapidly and to provide most of the new jobs for nursing aides. A large number of job openings is also expected for homemaker-home health aides due to the very rapid growth and very high turnover in this field. Homemaker-home health aides is expected to be one of the fastest growing occupations through 2006.

### Employment Information

**Greater Kansas City Area:** A total of 9,687 jobs were held by nursing aides and orderlies in the Greater Kansas City area in 1994, with 12,529 jobs projected by the year 2005 (+29%). Approximately 405 average annual openings, including replacements, are anticipated. Home health aides held 1,578 jobs in 1994, with 2,979 jobs projected by 2005 (+89%). Approximately 151 average annual openings are anticipated, including replacements.

**State:** Health assistants, nursing aides and orderlies, and home health aides held 21,110 jobs in Kansas in 1993, with 28,600 jobs projected by 2005 (+36%). Approximately 960 average annual openings are anticipated, including replacements.

**National:** Nursing aides, orderlies, and attendants held 1,312,000 jobs in 1996, with 1,645,000 jobs projected by 2006 (+25%). Approximately 340,000 average annual openings, including replacements, are anticipated. Homemaker-home health aides held 697,000 jobs in 1996, with 1,247,000 jobs projected by 2006 (+79%). Approximately 263,000 average annual openings are anticipated, including replacements.

### Salary Information

**Johnson County:** Nursing aides, orderlies, and attendants earned an average hourly wage of \$7.78 in Johnson County in 1996, and home health aides averaged \$10.93 per hour.

**Greater Kansas City Area:** Nursing aides, orderlies and attendants earned a median hourly wage of \$7.50 in the Greater Kansas City area in September 1997. The lowest paid 10% earned less than \$6.00 and the highest paid 10% earned more than \$9.67 per hour. Health aides, except nursing, earned a median hourly wage of \$8.30 in September

1997. The lowest paid 10% earned less than \$6.00 and the highest paid earned more than \$12.25 per hour.

**State:** Nursing aides, orderlies and attendants in Kansas earned an average hourly wage of \$7.20 in 1996, and home health aides averaged \$7.77 per hour.

**National:** The median hourly wage for full-time salaried nursing aides and psychiatric aides was \$7.05 in 1996. The lowest 10% earned minimum wage and the highest 10% earned more than \$12.68 per hour. Earnings for homemaker-home health aides vary considerably. Home health aides' average starting hourly wage ranged from \$5.96 to \$8.29 in 1996. Wages were somewhat higher in the Northeast and West and somewhat lower in the Midwest and South.

### **JCCC Salary and Placement Information**

This program has not been offered at JCCC for a sufficient length of time to provide data from follow-up studies of JCCC career program completers.

## HEALTH INFORMATION TECHNOLOGY

Job prospects for formally trained technicians should be very good. Employment of health information technicians is expected to grow much faster than the average for all occupations through 2006 due to rapid growth in the number of medical tests, treatments, and procedures and because medical records will be increasingly scrutinized by third-party payers, courts, and consumers. Hospitals will continue to employ the most technicians, but growth will not be as fast as in other areas. Increasing demand for detailed records in offices and clinics of physicians should result in fast employment growth, especially in large group practices. Rapid growth is also expected in nursing homes, and home health agencies.

Most employers prefer to hire Accredited Record Technicians (ART). Accreditation is obtained by passing a written examination offered by the American Medical Record Association. To take the examination, a person must be a graduate of a 2-year accredited associate's degree program.

### Employment Information

**Greater Kansas City Area:** Medical record technicians held 654 jobs in the Greater Kansas City area in 1994. Approximately 1,036 jobs are projected by the year 2005 (+58%), with 47 average annual openings, including replacements, anticipated.

**State:** Medical record technicians held 1,300 jobs in Kansas in 1993, with 2,280 jobs projected by 2005 (+75%). Approximately 110 average annual openings, including replacements, are anticipated.

**National:** Medical record technicians held 87,000 jobs in 1996, with 132,000 jobs projected by 2006 (+51%). Approximately 12,000 average annual openings, including replacements, are anticipated.

### Salary Information

**Johnson County:** Medical record technicians earned an average hourly wage of \$9.59 in Johnson County in 1996.

**Greater Kansas City Area:** Medical record technicians working in the metropolitan area earned an average hourly wage of \$9.03 in 1994. The highest reported wage was \$19.50 and the lowest was \$5.25 per hour. The average hourly wage for medical record technicians in Johnson, Leavenworth, Miami, and Wyandotte Counties was between \$9.32 and \$10.72 in 1995. The lowest reported wage was under \$5.90, and the highest was over \$11.96 per hour.

**State:** The average hourly wage for medical record technicians in Kansas was \$9.55 in 1996.

**National:** According to a 1996 survey by the American Health Information Management Association, the median hourly wage for accredited health information technicians was \$15.00. The average annual salary for health information technicians employed by the Federal Government was \$12.29 in early 1997.

**JCCC Career Program Completers:** An hourly wage of \$11.00 was reported by the one health information technology program completer responding to the short-term follow-up study of 1996-97 career program completers conducted in January of 1998 who was employed full-time in a job related to health information technology.

An average hourly wage of \$13.66 was reported by respondents to the long-term follow-up study of 1993-94 career program completers conducted in 1998 who were working full-time in a job related to health information technology.

### **JCCC Placement Information**

The one respondent to the 1998 short-term follow-up study of 1996-97 career program completers from the health information technology program was employed in a related job. Three of the four respondents to the 1998 long-term follow-up study of the 1993-94 career program completers were working in a job related to health information technology, and the other respondent was employed in an unrelated job.

**Note.** Because the health information technology program is a cooperative effort through the Metropolitan Community College District, salary and placement data are collected primarily on students initiating their studies at JCCC and are thus incomplete. Salary and placement information is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

## HOSPITALITY MANAGEMENT

Employment of restaurant and food service managers is expected to increase faster than the average for all occupations through the year 2006. Job opportunities are expected to be best for those with an associate's or bachelor's degree in restaurant and institutional food service management. New restaurants are increasingly affiliated with national chains rather than being independently owned and operated. As this trend continues, fewer owners will manage restaurants themselves, and more restaurant managers will be employed to run the establishments. However, more and more schools, hospitals, and other businesses are contracting out their food services to institutional food service companies who need managers to run these operations.

Employment of hotel managers is expected to grow about as fast as the average for all occupations through 2006. Long hours and stressful working conditions result in high turnover in this field, with most job openings expected to occur as experienced managers transfer to other occupations, retire, or stop working for other reasons. Manager jobs are not expected to grow as rapidly as the hotel industry due to consolidation, with chains and franchises acquiring independently owned establishments. In addition, front desk clerks are increasingly assuming responsibilities previously reserved for managers.

### Employment Information

**Greater Kansas City Area:** Food service and lodging managers held 5,563 jobs in the Greater Kansas City area in 1994. Approximately 7,721 jobs are projected by the year 2005 (+39%), with 313 average annual openings, including replacements, anticipated.

**State:** Food service and lodging managers held 6,090 jobs in Kansas in 1993, with 8,820 jobs projected by 2005 (+45%). Approximately 360 average annual openings, including replacements, are anticipated.

**National:** About 589,000 workers were employed as food service and lodging managers in 1996, with 757,000 jobs projected by 2006 (+29%). Approximately 152,000 average annual openings, including replacements, are anticipated.

### Salary Information

**JCCC Career Program Completers:** An average annual salary of \$23,213 was reported by 1996-97 hospitality management program completers responding to the January 1998 short-term follow-up study who were working full-time in a job related to hospitality management.

An average annual wage of \$35,797 was reported by 1993-94 hospitality management program completers working full-time in a related job who responded to the long-term

follow-up study conducted in 1998. Male respondents reported an average annual salary of \$43,680 and females averaged \$27,914 per year.

**Johnson County:** Food service and lodging managers earned an average annual salary of \$30,763 in Johnson County in 1996.

**Greater Kansas City Area:** The average annual salary for food service and lodging managers employed in the metropolitan area was \$20,613 in 1994. The highest reported salary was \$62,400 and the lowest was \$9,110 per year. Food service and lodging managers in Johnson, Leavenworth, Miami, and Wyandotte Counties earned a median annual salary of between \$21,819 and \$25,085 in 1995. The lowest salary reported was under \$12,272, the highest was over \$43,576, and the average entry-level salary was \$18,138 per year.

**State:** The average salary reported for food service and lodging managers in Kansas was \$24,274 in 1996.

**National:** Earnings of restaurant and food service managers and hotel managers vary greatly according to the type and size of establishment, level of experience, their responsibilities, and the segment of the industry in which they are employed. The median annual salary for restaurant and food services managers was about \$23,920 in 1996. The lowest paid 10% earned less than \$12,480, and the highest paid 10% earned more than \$46,800.

Annual salaries of assistant hotel managers averaged \$40,000 in 1996, front office managers earned an average of \$28,000, food and beverage directors averaged \$43,000, and general managers averaged nearly \$54,000 per year.

## **JCCC Placement Information**

All of the 1996-97 hospitality management program completers responding to the January 1998 short-term follow-up study, and over 83% of the 1993-94 completers contacted for the long-term follow-up study in 1998 were employed in a job related to hospitality management. The rest of the respondents were out of the labor force altogether.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers. Caution should also be exercised when interpreting local, state and national salary data as these data do not differentiate between salaries of postsecondary hospitality management career program completers and wages earned by less qualified food service and lodging managers.

## **HVAC TECHNOLOGY: HEATING, VENTILATION AND AIR CONDITIONING**

Job prospects for highly skilled air conditioning, heating, and refrigeration technicians are expected to be very good, particularly those with formal training to install, remodel, and service new and existing systems. Employment of heating, air conditioning, and refrigeration technicians is expected to increase about as fast as the average for all occupations through the year 2006. Concern for the environment and energy conservation should continue to prompt the development of new energy-saving heating and air conditioning systems. An emphasis on better energy management should lead to the replacement of older systems and the installation of newer, more efficient systems in existing homes and buildings. In addition, the continuing focus on improving indoor air quality should contribute to the growth of jobs.

### **Employment Information**

**Greater Kansas City Area:** Heating, air conditioning and refrigeration mechanics held 2,481 jobs in the Greater Kansas City area in 1994, with 3,322 jobs projected by 2005 (+34%). Approximately 132 average annual openings are anticipated, including replacements.

**State:** Heating, air conditioning and refrigeration mechanics held 1,920 jobs in Kansas in 1993, with 2,660 jobs projected by 2005 (+39%). Approximately 100 average annual openings are anticipated, including replacements.

**National:** About 256,000 heating, air conditioning, and refrigeration mechanics and installers were employed nationwide in 1996, with 300,000 jobs are projected by 2006 (+17%). Approximately 27,000 average annual openings, including replacements, are anticipated.

### **Salary Information**

**Johnson County:** Heating, air conditioning, and refrigeration mechanics and installers earned an average hourly wage of \$17.40 in Johnson County in 1996.

**Greater Kansas City Area:** HVAC technicians working in the metropolitan area earned an average hourly wage of \$11.10 in 1994. The highest reported wage was \$13.50 and the lowest was \$8.50 per hour. The average hourly wage for heating, air conditioning, and refrigeration mechanics and installers in Johnson, Leavenworth, Miami, and Wyandotte Counties was between \$13.01 and \$14.96 in 1995. The lowest reported wage was under \$6.80, and the highest was over \$20.95.

**State:** The average hourly wage for heating, air conditioning, and refrigeration mechanics and installers in Kansas was \$12.84 in 1996.



**National:** The median hourly wage of air-conditioning, heating, and refrigeration mechanics who worked full-time was \$13.40 in 1996. The lowest 10% earned less than \$7.18 and the top 10% earned more than \$22.18 per hour. Apprentices usually begin at about 50% of the wage rate paid to experienced workers.

**JCCC Career Program Completers:** An average hourly wage of \$15.41 was reported by 1996-97 HVAC technology program completers responding to the January 1998 short-term follow-up study who were working full-time in a job related to HVAC technology.

Respondents to the 1998 long-term follow-up study of 1993-94 career program completers employed full-time in a job related to HVAC technology reported an average hourly wage of \$16.36.

### **JCCC Placement Information**

Over 92% of the 1996-97 HVAC technology program completers responding to the January 1998 short-term follow-up study were employed in a job related to HVAC technology and the rest were working in an unrelated job.

Nearly 86% of the 1993-94 HVAC technology program completers responding to the 1998 long-term study were working in a job related to HVAC; the other respondents were employed in unrelated jobs.

**Note.** Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

## INFORMATION TECHNOLOGY

Computer scientists, computer engineers, and systems analysts are expected to be the three fastest growing occupations through the year 2006. The rapid spread of computers has generated a need for highly trained workers to design and develop new hardware and software systems, and to incorporate technological advances into new or existing systems. Existing data sources refer to this group of professionals as computer scientists, computer engineers, and systems analysts, but in reality this group includes a wide range of professional computer-related occupations.

The JCCC information technology program is designed to provide students with a foundation in designing, installing, and implementing computer networking resources. Thus, the occupational category of computer scientists, computer engineers, and systems analysts becomes the closest fit for purposes of creating a program outlook. However, because this occupational category is so broad-based, the employment projections and salary data should be viewed with caution. Differing titles are incorporated into the following data based on title utilization within various sources.

### Employment Information

**Greater Kansas City Area:** Computer systems analysts, engineers, and scientists held 9,359 jobs in the Greater Kansas City area in 1994, with 13,710 jobs projected by 2005 (+47%). Approximately 582 average annual openings are anticipated, including replacements.

**State:** Systems analysts, database administrators, and all other computer scientists held 5,130 jobs in Kansas in 1993, with 9,630 jobs projected by 2005 (+88%). Approximately 440 average annual openings are anticipated, including replacements.

**National:** Computer systems analysts, engineers, and scientists held 933,000 jobs nationwide in 1996, with 1,937,000 jobs projected by 2006 (+108%). About 253,000 average annual openings, including replacements, are anticipated.

### Salary Information

**Greater Kansas City Area:** Computer systems analysts and scientists earned a median annual salary of \$52,603 in the Greater Kansas City area 1996. The lowest paid 10% earned less than \$36,192 and the highest paid 10% earned more than \$68,016 per year.

**State:** Database administrators earned an average annual salary of \$36,587 in Kansas in 1996, and computer support specialists averaged \$40,144 per year. Computer programmers and systems analysts are listed as a combined category in Kansas data sources, with an average annual salary of \$42,494.

**National:** Median annual earnings of computer systems analysts and scientists who worked full time in 1996 were about \$46,300. The lowest paid 10% earned less than \$24,800 and the highest paid 10% earned more than \$76,200. The entrance salary for systems analysts with a bachelor's degree in the federal government was \$19,520 in 1997.

**JCCC Career Program Completers:** An average annual salary of \$37,378 was reported by 1996-97 information technology program completers responding to the January 1998 short-term follow-up study who were working full-time in a job related to information technology.

### **JCCC Placement Information**

Over 91% of information technology completers who responded to the 1998 short-term follow-up study of 1996-97 career program completers were employed in a related job. Approximately 7% were working in an unrelated job and 2% were out of the labor force altogether.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

## INTERIOR MERCHANDISING

Employment in design occupations is expected to grow faster than the average for all occupations through 2006. Rising demand for professional design of private homes, office space, restaurants and other retail establishments, and institutions that care for the rapidly growing elderly population should spur employment growth among interior designers.

Interior merchandising program completers will also find ample employment opportunities as retail salespersons and have better opportunities for advancement than nonprogram completers. Overall, although employment of retail sales worker supervisors and managers is expected to grow more slowly than the average for all occupations through the year 2006, employment of retail sales workers is expected to increase about as fast as the average due to anticipated growth in retail sales created by a growing population.

### Employment Information

**Greater Kansas City Area:** Interior designers held 512 jobs in 1994, with 599 jobs projected by the year 2005 (+17%). Wholesale and retail buyers held 842 jobs in the Greater Kansas City area in 1994. Approximately 840 jobs are projected by the year 2005, with 21 average annual openings anticipated due to the need for replacements.

Retail salespersons held 28,115 jobs in the Greater Kansas City area in 1995. Approximately 31,867 jobs are projected by the year 2005 (+13%), with 1,188 average annual openings, including replacements, anticipated. First line sales supervisors held 18,130 jobs in 1994, with 21,262 jobs projected by the year 2005 (+17%). Approximately 611 average annual supervisory openings and 1,188 average annual retail sales openings, including replacements, are anticipated.

**State:** Interior designers held 520 jobs in Kansas in 1993, with 530 jobs projected by 2005 (+2%). Approximately 10 average annual openings, including replacements, are anticipated. Wholesale and retail buyers held 1,610 jobs in 1993, with 1,760 jobs projected by 2005 (+9%). Approximately 50 average annual openings, including replacements, are anticipated. Retail sales workers held 33,940 jobs in 1993, with 40,080 jobs projected by 2005 (+18%). Approximately 1,500 average annual openings are projected, including replacements.

**National:** Approximately 63,000 workers were employed as interior designers in 1996, with 80,000 jobs projected by 2006 (+28%). Nearly 11,000 average annual openings, including replacements, are anticipated.

### Salary Information

**Johnson County:** The average hourly wage earned by interior designers employed in Johnson County in 1996 was \$15.21.

**Greater Kansas City Area:** The median hourly wage for interior designers in Johnson, Leavenworth, Miami, and Wyandotte Counties was between \$9.82 and \$11.29 in 1995. The lowest wage reported was under \$6.80 and the highest was over \$18.21 per hour. In 1995, wholesale and retail buyers in Johnson, Leavenworth, Miami, and Wyandotte Counties earned an average hourly wage of between \$13.58 and \$15.62. The lowest wage reported was under \$7.83, and the highest was over \$24.10 per hour. First-line sales supervisors earned an average wage of between \$14.18 and \$16.30 in 1995, with a median entry-level wage of \$9.77 per hour. Retail sales personnel earned an average hourly wage of \$6.84 throughout the metropolitan area in 1994. The highest reported wage was \$45.90, and the lowest was \$4.25 per hour.

**State:** The average hourly wage for interior designers in Kansas was \$13.54 per hour in 1996.

**National:** The median hourly wage of experienced full-time designers in all fields of design was \$14.75 in 1994. The bottom 10% earned less than \$8.25, and the top 10% earned more than \$27.50 per hour. Supervisors or managers of sales workers in the retail trade industry who usually worked full time had median hourly earnings of \$11.13 in 1994; the top 10% earned more than \$22.68 and the bottom 10% earned less than \$6.00 an hour.

**JCCC Career Program Completers:** An average hourly wage of \$10.48 was reported by 1996-97 JCCC interior merchandising program completers responding to the January 1998 short-term follow-up study who were working full-time in a related job. Respondents to the 1998 long-term follow-up study of 1993-94 career program completers who were working full-time in a job related to interior merchandising reported an average hourly wage of \$14.50.

### **JCCC Placement Information**

Fully 90% of the 1996-97 interior merchandising program completers responding to the January 1998 short-term follow-up study were working in a job related to interior merchandising, and the remainder were unemployed and looking for work. Nearly 62% of the interior merchandising completers who responded to the 1998 long-term follow-up study of 1993-94 completers were employed in a job related to interior merchandising; 23% were working in unrelated jobs and the remainder were out of the labor force altogether.

**Note.** Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

## LICENSED PRACTICAL NURSE

Employment of LPN's is expected to increase faster than the average for all occupations through 2006 in response to the long-term care needs of a rapidly growing population of very old people and to the general growth of health care. However, LPN's seeking positions in hospitals may face competition as the number of hospital jobs for LPN's declines. The number of inpatients, with whom most LPN's work, is not expected to increase much. Nursing homes will offer the most new jobs for LPN's as the number of aged and disabled persons in need of long-term care rises rapidly. In addition to caring for the aged, nursing homes may be called on to care for the increasing number of patients who have been released from the hospital and have not yet recovered enough to return home. Much faster than average growth is also expected in home health care services. This is in response to a growing number of older persons with functional disabilities, consumer preferences for care in the home, and technological advances which make it possible to bring increasingly complex treatments into the home.

### Employment Information

**Greater Kansas City Area:** Approximately 5,476 LPN's were employed in the Greater Kansas City area in 1994, with 6,647 jobs projected by the year 2005 (+21%). About 213 average annual openings, including replacements, are anticipated.

**State:** Approximately 6,610 licensed practical nurses were employed in Kansas in 1995, with 8,500 jobs projected by 2005 (+29%). Nearly 290 average annual openings are anticipated, including replacements..

**National:** Licensed practical nurses held 699,000 jobs in 1996, with 848,000 jobs projected by 2006 (+21%). Approximately 45,000 average annual openings, including replacements, are anticipated.

### Salary Information

**Johnson County:** The average wage earned by LPN's employed in Johnson County in 1996 was \$12.50 per hour.

**Greater Kansas City Area:** Licensed practical nurses earned a median hourly wage of \$12.00 in the Greater Kansas City area in September 1997. The lowest paid 10% earned less than \$8.16, and the highest paid 10% earned more than \$15.30 per hour.

**State:** Licensed practical nurses earned \$11.55 on the average in Kansas in 1996.

**National:** The median hourly wage of full-time salaried licensed LPN's was \$11.70 in 1996. The lowest paid 10% earned less than \$7.95 and the top 10% earned more than \$16.83 per hour.

***JCCC Career Program Completers:*** An average hourly wage of \$10.71 was reported by 1996-97 JCCC licensed practical nurse program completers responding to the January 1998 short-term follow-up study who were working full-time in a related job.

### **JCCC Placement Information**

Nearly 79% of LPN program completers responding to the 1998 short-term follow-up study of 1996-97 career program completers were employed in a related job; the rest were pursuing additional education. This program has not been available at JCCC long enough for inclusion in long-term follow-up studies.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

## MARKETING & MANAGEMENT

Employment of marketing, advertising, and public relations managers is expected to increase faster than the average for all occupations through 2006. Marketing, advertising, and public relations manager jobs are highly coveted and will be sought by other managers or highly experienced professional and technical personnel, resulting in substantial job competition. Those who have new media and interactive marketing skills will be particularly sought after. Projected employment growth varies by industry. For example, employment of marketing, advertising, and public relations managers is expected to grow much faster than the average in most business services industries, such as computer and data processing, and management and public relations firms, while average growth is projected in manufacturing industries overall. Many companies that eliminated in-house marketing and advertising departments during downsizing in recent years are now relying on firms which specialize in promotion, marketing, and advertising activities to provide these services.

### Employment Information

**Greater Kansas City Area:** Marketing, advertising, and public relations managers held 3,247 jobs in the Greater Kansas City area in 1994. Approximately 4,126 jobs are projected through the year 2005 (+27%). Approximately 150 average annual openings, including replacements, are anticipated.

**State:** Marketing, advertising, and public relations managers held 4,820 jobs in Kansas in 1993. Approximately 6,550 jobs are projected by 2005 (+36%) with 260 average annual openings, including replacements, anticipated.

**National:** Marketing, advertising, and public relations managers held 482,000 jobs in 1996, with approximately 620,000 jobs projected by the year 2006 (+29%). Approximately 93,000 average annual openings, including replacements, are anticipated.

### Salary Information

**Johnson County:** Marketing, advertising, and public relations managers employed in Johnson County in 1996 earned an average annual salary of \$57,096.

**Greater Kansas City Area:** Throughout the metropolitan area the average annual salary for marketing, advertising, and public relations managers was \$68,016 in September 1997. The lowest paid 10% earned less than \$35,714, and the highest paid earned more than \$79,997 per year.

**State:** The average annual salary for marketing, advertising, and public relations managers in Kansas was \$47,632 in 1996.



**National:** The median annual salary of marketing, advertising, and public relations managers was \$46,000 in 1996. The lowest 10% earned \$23,000 or less, and the top 10% earned \$97,000 or more. According to a National Association of Colleges and Employers survey, starting salary offers to marketing majors graduating in 1997 averaged about \$29,000; advertising majors, about \$27,000.

**JCCC Program Completers:** An average annual salary of \$18,533 was reported by 1996-97 marketing and management program completers responding to the January 1998 short-term follow-up study who were working full-time in a related job. The average salary reported by business administration program completers responding to the 1998 short-term follow-up study was \$24,877.

An average annual salary of \$28,642 was reported by 1993-94 marketing and management program completers working full-time in a related job who responded to the long-term follow-up study conducted in 1998. The average annual wage reported by males was \$27,810 compared to \$31,990 reported by females.

Business administration program completers responding to the 1998 long-term follow-up study of 1993-94 completers who were working full-time in a related job reported earning an average annual wage of \$38,210. On the average, males were earning \$40,914 compared to \$35,506 for females.

### **JCCC Placement Information**

All of the respondents to the January 1998 short-term follow-up of 1996-97 marketing and management program completers and nearly 94% of the completers of the business administration program were employed in a related job. Nearly 88% of the respondents to the 1998 follow-up of 1993-94 marketing and management program completers and 82% of the business administration program completers responding to the survey were employed in a related job related.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

## METAL FABRICATION

Opportunities for those who wish to become welders, cutters, and welding machine operators differ by occupational specialty. Employment of welders and cutters is expected to increase slowly, while that of welding machine operators should remain unchanged through the year 2006. Most job openings will result from the need to replace experienced workers who transfer to other occupations or leave the labor force. Certified welders, especially those certified in more than one process, will have much better employment opportunities than non-certified welders. Manual welders, especially those with a wide variety of skills, will increasingly be needed for sophisticated fabrication tasks and repair work that do not lend themselves to automation. Welders can expect to find more jobs in the business services industry as companies increasingly contract out repair and maintenance functions.

### Employment Information

**Greater Kansas City Area:** Welders and cutters held 1,953 jobs in the Greater Kansas City area in 1994. Approximately 2,136 jobs are projected by the year 2005 (+9%), with 64 average annual openings, including replacements, anticipated.

**State:** Welders and cutters held 4,600 jobs in Kansas in 1993, with 5,000 jobs projected by 2005 (+9%). Approximately 140 average annual openings, including replacements, are projected.

**National:** Welders and cutters held 352,000 jobs in 1996, with 384,000 jobs projected by 2006 (+9%). Approximately 37,000 average annual openings are projected, mostly due to the need for replacements.

### Salary Information

**Greater Kansas City Area:** The average hourly wage for welders and cutters in Johnson, Leavenworth, Miami, and Wyandotte Counties was \$14.98 in 1996.

**State:** The average hourly wage of welders and cutters in Kansas was \$10.58 in 1996.

**National:** The median hourly wage for welders and cutters was about \$11.95 in 1996. The middle 50% earned between \$8.65 and \$15.13, the top 10% earned more than \$20.18, and the lowest 10% earned less than \$6.95 per hour.

**JCCC Career Program Completers:** An average hourly wage of \$10.02 was reported by 1995-96 JCCC metal fabrication program completers responding to the January 1997 short-term follow-up study who were working full-time in a related job.

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## **JCCC Placement Information**

All of the metal fabrication program completers responding to the January 1997 follow-up study of 1995-96 career program completers were employed in jobs related to metal fabrication.

More recent data were unavailable due to the small number of completers from this program and the lack of response by those few completers to the 1998 short- and long-term follow-up studies.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

## NURSING

Employment of registered nurses is expected to grow faster than the average for all occupations through 2006. As nursing school enrollments level off or decline (as they have on a cyclical basis in the past) the number of qualified applicants will fall, reducing competition for jobs. There will always be a need for traditional hospital nurses even though employment in hospitals is expected to grow more slowly than in other health-care sectors. Employment in nursing homes is expected to grow much faster than the average due to increases in the number of people in their 80's and 90's, many of whom will require long-term care. In addition, the financial pressure on hospitals to release patients as soon as possible should produce more nursing home admissions. Employment in home health care is expected to grow the fastest, and the type of care demanded will require nurses who are able to perform complex procedures. Opportunities will be best for nurses with advanced education and training, such as nurse practitioners.

### Employment Information

**Greater Kansas City Area:** Registered nurses held 12,983 jobs in the Greater Kansas City area in 1994. Approximately 15,495 jobs are projected by the year 2005 (+19%), with 422 average annual openings, including replacements, anticipated.

**State:** Registered nurses held 20,390 jobs in Kansas in 1995, with 27,580 jobs projected by 2005 (+35%). Approximately 920 average annual openings, including replacements, are anticipated.

**National:** Registered nurses held 1,971,000 jobs in 1996, with 2,382,000 jobs projected by 2006 (+21%). Approximately 183,000 average annual openings, including replacements, are anticipated.

### Salary Information

**Johnson County:** Registered nurses employed in Johnson County, Kansas earned an average annual salary of \$40,664 in 1996.

**Greater Kansas City Area:** The average annual salary for nurses working in the Greater Kansas City area in September 1997 was \$38,938. The lowest paid 10% earned less than \$30,576 and the highest paid earned more than \$48,651

**State:** The average annual salary for registered nurses in Kansas was \$36,566 in 1996.

**National:** Median annual earnings of full-time salaried registered nurses were \$36,244 in 1996. The middle 50% earned between \$29,640 and \$45,136; the lowest 10% earned less than \$21,580 and the top 10% earned more than \$54,028.

***JCCC Career Program Completers:*** An average annual salary of \$32,802 was reported by 1996-97 nursing program completers responding to the January 1998 short-term follow-up study who were working full-time in a job related to nursing. Male nursing program completers responding to the survey reported an average annual salary of \$33,634 compared to \$32,718 reported by female respondents.

An average annual salary of \$41,746 was reported by 1994 nursing program completers working full-time in a related job who responded to the long-term follow-up study conducted in 1998.

### **JCCC Placement Information**

Nearly 95% of 1996-97 nursing program completers responding to the 1998 short-term follow-up studies were working in a job related to nursing. Approximately 3% were working in an unrelated job, and the rest were unemployed at the time the survey was conducted.

All of the 1994 nursing program completers responding to the long-term follow-up study conducted in 1998 were employed in a related job.

**Note.** Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

## OCCUPATIONAL THERAPY ASSISTANT

The occupational therapy assistant occupation will continue to be among the fastest growing in the economy through the year 2006. However, the number of job openings for occupational therapy assistants will be low because the occupation is small. Growth will result from an aging population which will need more occupational therapy services. Demand will also result from advances in medicine that allow more people with critical problems to survive, who then need rehabilitative therapy. Furthermore, employers seeking to reduce health care costs are expected to hire more occupational therapy assistants and aides for tasks currently performed by more highly paid occupational therapists.

The occupational therapy assistant program is offered in cooperation with Penn Valley Community College. The support courses are provided at JCCC, and the clinical courses are conducted at Penn Valley and affiliated clinical agencies. All program completers are required to pass a national certification examination.

### Employment Information

**Greater Kansas City Area:** Occupational therapy assistants held 103 jobs in the Greater Kansas City area in 1994. Approximately 180 jobs are projected by the year 2005 (+75%) with 9 average annual openings, including replacements, anticipated.

**State:** Occupational therapy assistants held 70 jobs in Kansas in 1993, with 150 jobs projected by 2005 (+114%). Approximately 10 average annual openings, including replacements, are anticipated.

**National:** Approximately 16,000 occupational therapy assistants and aides held jobs nationwide in 1994, with 26,000 jobs projected by 2006 (+69%). Approximately 4,000 average annual openings, including replacements, are anticipated.

### Salary Information

**Greater Kansas City Area:** Occupational therapy assistants earned an average hourly wage of \$10.25 in 1994. The highest reported wage was \$17.50, and the lowest was \$5.75 per hour.

**State:** The average hourly wage was between \$7.83 and \$9.00 for occupational therapy assistants in Kansas in 1995. The highest reported wage was over \$11.96 per hour.

**National:** According to a membership survey of the American Occupational Therapy Association, the average hourly wage of new occupational therapy assistants was \$13.19 in 1995. However, other sources indicated occupational therapy aides usually start between \$6.50 and \$7.50 per hour.

## **JCCC Salary and Placement Information**

Occupational therapy assistant program completers responding to the short-term follow-up study of 1996-97 career program completers conducted in January 1998 were all employed in a related job, and reported an average hourly wage of \$12.23.

None of the occupational therapy assistant program completers from the Class of 1993-94 responded to the 1998 long-term follow-up study.

**Note.** Salary and placement information for career program completers is based on data supplied by respondents to follow-up studies and thus may not necessarily be representative of all career program completers.

Because the occupational therapy assistant program is a cooperative effort through the Metropolitan Community College District, salary and placement data are collected primarily on students initiating their studies at JCCC and are thus incomplete.

## OFFICE SYSTEMS TECHNOLOGY

Job openings should be plentiful, especially for well qualified and experienced secretaries, primarily due to the need to replace workers who transfer to other occupations or leave this very large occupation for other reasons each year. Projected employment growth for secretaries over the 1996-2006 period will vary by occupational specialty. Employment of secretaries who do not specialize in legal or medical work--about 7 out of 8--is expected to decline due to the widespread application of new office automation. Growth in health services will spur faster than average employment growth for medical secretaries, and expansion of the legal services industry will contribute to average employment growth among legal secretaries.

### Employment Information

**Greater Kansas City Area:** Secretaries held 24,981 jobs in the Greater Kansas City area in 1994. Of those, 2,268 were legal secretaries, 1,877 were medical secretaries, and 20,836 were other categories of secretaries. Approximately 28,057 secretarial jobs are projected by the year 2005 (+12%), with 719 average annual openings, including replacements, anticipated. First line clerical supervisors held 11,811 jobs in 1994, with 14,412 jobs projected by the year 2005 (+22%). Approximately 534 average annual openings for clerical supervisors are anticipated, including replacements.

**State:** Secretaries held nearly 30,000 jobs in Kansas in 1993. Of those, 1,960 were legal secretaries and 2,160 were medical secretaries. Approximately 33,230 secretarial jobs are projected by 2005 (+13%). Of those, 2,560 will be for legal secretaries (+31%) and 2,830 will be for medical secretaries (+31%). Approximately 830 average annual secretarial openings, including replacements, are anticipated. Clerical supervisors held 13,940 jobs in Kansas in 1993, with 17,600 jobs projected by 2005 (+26%). Approximately 670 average annual openings are anticipated, including replacements.

**National:** About 4,153,000 secretaries, stenographers and typists held jobs in 1996, with 4,081,000 jobs projected by 2006 (-2%). Of those, 284,000 were legal secretaries (319,000 jobs projected; +13%), and 239,000 were medical secretaries (314,000 jobs projected; +32%). Approximately 574,000 average annual openings for secretaries, stenographers and typists are anticipated by 2006, including replacements.

### Salary Information

**Johnson County:** Legal secretaries employed in Johnson County, Kansas in 1996 earned an average hourly wage of \$14.34; medical secretaries earned \$13.04, and other secretaries earned \$10.93 per hour.

**Greater Kansas City Area:** Secretaries employed in the Greater Kansas City area in September 1997 earned a median hourly wage of \$10.12. The lowest paid 10% earned less than \$8.43, and the highest paid 10% earned more than \$14.05 per hour.



**State:** The average hourly wage for Kansas secretaries was \$9.19 in 1996. Legal secretaries earned an average hourly wage of \$10.99 and medical secretaries earned \$9.11 on the average in 1996.

**National:** Based on a survey of 160 metropolitan areas, the average hourly wage for secretaries with limited experience was \$9.47 in 1995. Salaries vary a great deal, however, reflecting differences in skill, experience, and level of responsibility, with averages ranging up to \$19.52 per hour. Secretaries employed by the federal government earned an average of \$13.41 per hour in 1997.

**JCCC Career Program Completers:** An average hourly wage of \$10.10 was reported by 1996-97 office systems technology program completers responding to the January 1998 short-term follow-up study who were working full-time in a related job. An average hourly wage of \$13.31 was reported by 1993-94 office systems technology program completers working full-time in a related job who responded to the long-term follow-up study conducted in 1998.

### **JCCC Placement Information**

Over 86% of the 1996-97 office systems technology program completers responding to the January 1998 short-term follow-up study were employed in a job related to office systems technology; 9% were pursuing additional education, and 5% were out of the labor force altogether. Over 68% of 1993-94 office systems technology program completers contacted in 1998 were employed in a related job; 5% were working in an unrelated job, 5% were unemployed, and the remainder were out of the labor force.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

## PARALEGAL

Competition for jobs should continue as the growing number of graduates from paralegal education programs keeps pace with employment growth. Employment of paralegals is expected to grow much faster than average--ranking among the fastest growing occupations in the economy through the year 2006--as law firms and other employers with legal staffs increasingly hire paralegals to lower the cost, and increase the availability and efficiency, of legal services. Private law firms will continue to be the largest employers of paralegals, especially in areas such as intellectual property, health care law, international law, elder law, sexual harassment, and the environment.

Graduation from an American Bar Association (ABA) approved program can enhance one's employment opportunities. JCCC's paralegal program is one of only 30% of the paralegal programs offered in the United States which have been approved by the ABA.

### Employment Information

**Greater Kansas City Area:** Paralegals remain among the fastest growing occupations in the Greater Kansas City area. Paralegals held 737 jobs in 1994, and 1,128 jobs are projected by the year 2005 (+53%). Approximately 44 average annual openings, including replacements, are anticipated.

**State:** Paralegals held 700 jobs in Kansas in 1993, with 1,140 jobs projected by 2005 (+63%). Approximately 50 average annual openings, including replacements, are anticipated.

**National:** Paralegals held 113,000 jobs in 1996, with 189,000 jobs projected by 2006 (+68%). Approximately 29,000 average annual openings, including replacements, are anticipated. Paralegals are listed among the fastest growing occupations nationwide.

### Salary Information

**Johnson County:** Paralegal personnel employed in Johnson County, Kansas earned an average annual salary of \$31,990 in 1996.

**Greater Kansas City Area:** Legal assistants (the closest occupational category for which recent data were available) earned an average annual salary of \$25,376 in the Greater Kansas City area in September 1997. The lowest paid 10% earned less than \$22,568 and the highest paid earned more than \$36,920 per year.

**State:** Paralegal personnel in Kansas earned an average annual wage of \$27,123 in 1996.

**National:** Earnings of paralegals vary greatly. Salaries depend on education, training, experience, the type and size of employer, and the geographic location of the job.

Generally, paralegals who work for large law firms or in large metropolitan areas earn more than those who work for smaller firms or in less populated regions. According to the National Federation of Paralegal Associations, paralegals earned an average annual salary of \$32,900 in 1995. Starting salaries of paralegals with one year or less experience averaged \$29,300. In addition to a salary, many paralegals received an annual bonus, which averaged about \$1,900 in 1995. The average annual salary of paralegal specialists who work for the federal government was about \$44,400 in 1997.

***JCCC Career Program Completers:*** An average annual salary of \$25,979 was reported by 1996-97 paralegal program completers responding to the January 1998 short-term follow-up study who were employed full-time in a related job.

An average annual salary of \$31,928 was reported by 1993-94 paralegal program completers working full-time in a related job who responded to the long-term follow-up study conducted in 1998.

### **JCCC Placement Information**

Nearly 84% of paralegal program completers responding to the January 1998 short-term follow-up study were working in a job related to their paralegal career program; 14% were employed in an unrelated job, and the remainder were unemployed at the time the survey was conducted.

Approximately 76% of respondents to the 1998 long-term follow-up study of 1993-94 paralegal program completers were employed in a related job; 12% were working in an unrelated job, 8% were out of the labor force, and 4% were unemployed and looking for work at the time the study was conducted.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

## PHYSICAL THERAPY ASSISTANT

Physical therapist assistants and aides are expected to be among the fastest growing occupations through the year 2006. Demand for physical therapist assistants and aides will continue to rise with growth in the number of individuals with disabilities or limited function. The rapidly growing elderly population is particularly vulnerable to chronic and debilitating conditions that require therapeutic services, and the baby boom generation is entering the prime age for heart attacks and strokes, increasing the demand for cardiac and physical rehabilitation.

The physical therapy assistant program is offered in cooperation with Penn Valley Community College. The support courses are provided at JCCC, and the clinical courses are conducted at Penn Valley and affiliated clinical agencies. All program completers are required to pass a national certification examination.

### Employment Information

**Greater Kansas City Area:** Physical and correctional therapy assistants held 553 jobs in the Greater Kansas City area in 1994, with 894 jobs projected by the year 2005 (+62%). About 46 average annual openings are anticipated, including replacements.

**State:** Physical and corrective therapy assistants held 1,100 jobs in Kansas in 1993, with 1,800 jobs projected by 2005 (+64%). Approximately 90 average annual openings, including replacements, are anticipated.

**National:** Approximately 84,000 physical and corrective therapy assistants and aides held jobs in 1996, with 151,000 job projected by 2006 (+79%). Approximately 25,000 average annual openings, including replacements, are anticipated.

### Salary Information

**Greater Kansas City Area:** Physical and corrective therapy assistants and aids employed in Johnson, Leavenworth, Miami, and Wyandotte Counties earned an average hourly wage of \$12.66 in 1996. Those working in just Johnson County averaged \$14.79 per hour.

**State:** The average hourly wage earned by physical and corrective therapy assistants and aids in Kansas was \$10.85 in 1996.

**National:** According to the limited information available, starting wages for physical therapy assistants averaged about \$11.54 per hour in 1996. Starting salaries of assistants working in hospitals tended to be lower than those in private practice. The American Physical Therapy Association reports that experienced assistants working in private practice earned an average hourly wage of \$14.42 in 1996.

## **JCCC Salary and Placement Information**

None of the JCCC students who completed the physical therapy assistant program at Penn Valley Community College responded to any recent short-term follow-up studies, so current data are not available.

The three physical therapy assistant program completers responding to the 1995 long-term follow-up study of the 1990-91 completers were all working in a related job and reported an average hourly wage of \$15.96, and the one respondent to the 1997 long-term follow-up study of 1992-93 completers was employed full-time in a related job and earning \$19.23 per hour.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers. Because the physical therapy assistant program is a cooperative effort through the Metropolitan Community College District, salary and placement data are collected primarily on students initiating their studies at JCCC and are thus incomplete.

## RADIOLOGIC TECHNOLOGY

Employment of radiologic technologists is expected to grow faster than the average for all occupations through 2006. However, jobseekers are likely to face competition from many other qualified applicants for most job openings. In an attempt to employ fewer technologists and lower lab costs, hospitals have begun to merge radiologic with nuclear medicine technology departments. Consequently, technologists who can perform both radiologic and nuclear medicine procedures will have the best job opportunities. Sonographers should experience somewhat better job opportunities than other radiologic technologist occupations. Ultrasound is becoming an increasingly attractive alternative to radiologic procedures because radiation is absent from ultrasound procedures so there are no known side effects to patients.

Hospitals will remain the principal employer of radiologic technologists. However, employment is expected to grow most rapidly in offices and clinics of physicians, including diagnostic imaging centers. Health facilities such as these are expected to grow very rapidly through 2006 due to the strong shift toward outpatient care.

Radiologic technology is a cooperative program between JCCC and Penn Valley Community College, with related courses taken at JCCC and lab and clinical courses held at PVCC or at a cooperating health facility.

### Employment Information

**Greater Kansas City Area:** Approximately 1,783 workers were employed as radiologic technologists and technicians in 1994, with 2,639 jobs projected by the year 2005 (+48%). About 104 average annual openings, including replacements, are anticipated.

**State:** Radiologic technologists and technicians held 1,770 jobs in Kansas in 1993, with 2,690 jobs projected by 2005 (+52%). Approximately 100 average annual openings, including replacements, are anticipated.

**National:** About 174,000 radiologic technologists and technicians were employed in 1996, with 224,000 jobs projected by 2006 (+29%). Approximately 14,000 average annual openings, including replacements, are anticipated.

### Salary Information

**Johnson County:** Radiation therapists employed in Johnson County, Kansas in 1996 earned an average annual salary of \$31,990.

**Greater Kansas City Area:** Radiologic technicians employed in the Greater Kansas City area earned a median annual salary of \$30,701 in 1996. The lowest paid 10% earned less than \$26,000 and the highest paid 10% earned more than \$39,874 per year.

**State:** Radiologic technologists earned an average annual salary of \$29,640 in Kansas in 1996.

**National:** In 1996, the median annual salary for full-time radiologic technologists was \$29,068. The lowest paid 10% earned less than \$16,484 and the highest paid 10% earned more than \$44,148 per year. According to a Hay Group Survey of acute care hospitals, the median annual base salary for full-time radiologic technologists was \$28,800 in January 1997. Full-time radiation therapy technologists earned a median annual base salary of \$37,300 and ultrasound technologists earned \$36,100 per year.

### **JCCC Salary and Placement Information**

None of the students who completed the physical therapy assistant program at Penn Valley Community College responded to any recent short-term follow-up studies. However, radiologic technology program completers responding to the 1997 long-term follow-up study of 1992-93 career program completers who were working full-time in a related job reported an average annual salary of \$29,390. All four of them were employed in related jobs.

**Note.** Because the radiologic technology program is a cooperative effort through the Metropolitan Community College District, salary and placement data are collected primarily on students initiating their studies at JCCC and are thus incomplete. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

## RAILROADING OPERATIONS

Employment for a majority of railroad transportation workers is expected to decline through the year 2006, with only the number of jobs for locomotive engineers expected to grow. Also, relatively few opportunities resulting from replacement needs will occur because the attractive pay, tenure, and job security results in relatively few rail transportation workers leaving their jobs. Demand for railroad freight service will grow as the economy and the intermodal transportation of goods expand and railroads become more efficient. However, growth in the number of railroad transportation workers will generally be adversely affected by innovations such as larger, faster, more fuel-efficient trains and computerized classification yards that make it possible to move freight more economically. Employment of locomotive and yard engineers should grow as the industry expands and more trains are in operation, because they will be less affected by technological changes and reductions in crew size.

### Employment Information

**Greater Kansas City Area:** Approximately 648 workers were employed as track and maintenance equipment operators, locomotive engineers, yard engineers, and other railroad vehicle operators in the Greater Kansas City area in 1994, with 617 jobs in these categories projected by 2005 (-5%). Approximately 12 average annual openings are anticipated due to replacements. Data on other railroad occupations were unavailable.

**State:** Rail transportation workers held 1,940 jobs in Kansas in 1993, with 1,980 jobs projected by 2005 (+2%). Approximately 20 average annual openings, including replacements, are anticipated.

**National:** Approximately 83,000 rail transportation workers were employed nationwide in 1996, with 79,000 jobs projected by 2005 (-5%). About 6,000 average annual openings are anticipated, primarily due to the need for replacements.

### Salary Information

**State:** Railroad brake, signal, and switch operators earned an average annual salary of \$35,256 in Kansas in 1996. Data for other railroad transportation workers were unavailable.

**National:** According to the National Railroad Labor Conference in early 1997, the annual earnings for engineers ranged from an average of \$52,903 for yard-freight engineers, to \$65,374 for passenger engineers. For conductors, earnings ranged from an average of \$48,991 for yard-freight conductors, up to \$62,169 for local-freight conductors. Brake operators averaged from \$41,968 for yard-freight operators to \$54,448 for local-freight operators.



## **JCCC Salary and Employment Information**

The majority of railroading operations students are sent to JCCC by Burlington Northern Railroad for additional training and are not included in follow-up studies of JCCC career program completers with the exception of those successfully completing one of the railroad welding certificate programs.

The first follow-up study of this group was conducted in summer of 1996 and included railroad welding certificate completers from fall 1993 through spring 1995. Approximately 94% of respondents to this survey were employed full-time in a job related to railroad welding, 3% were out of the labor force, and the remaining 3% were unemployed and looking for work. An average annual wage of \$31,491 was reported by respondents employed full-time in a related job.

Completers for the 1995-96 academic year were followed up in fall of 1996; Nearly 85% of those responding to the survey were employed full-time in railroad welding jobs and the rest were serving in the military. Respondents employed full-time in a related job reported an average salary of \$31,158 (\$32,698 for those completing the track welding certificate and \$29,536 for those completing the structural welding certificate).

### **Note.**

Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

## RESPIRATORY CARE

Job opportunities are expected to remain good. Employment of respiratory therapists is expected to increase much faster than the average for all occupations through the year 2006 because of substantial growth of the middle-aged and elderly population, a development that will heighten the incidence of cardiopulmonary disease. In addition, advances in treating victims of heart attacks, accident victims, and premature infants (many of whom may be dependent on a ventilator during part of their treatment) will increase the demand for the services of respiratory care practitioners. Opportunities are expected to be highly favorable for respiratory therapists with cardiopulmonary care skills and experience in working with infants.

### Employment Information

**Greater Kansas City:** Respiratory therapists held 648 jobs in the Greater Kansas City area in 1994. Approximately 853 jobs are projected by the year 2005 (+32%), with 30 average annual openings, including replacements, anticipated.

**State:** Respiratory therapists held 860 jobs in Kansas in 1993, with 1,430 jobs projected by 2005 (+66%). Approximately 70 average annual openings, including replacements, are anticipated.

**National:** About 82,000 respiratory therapists were employed nationwide in 1996, with 119,000 jobs projected by 2006 (+46%). Approximately 8,000 average annual openings, including replacements, are anticipated.

### Salary Information

**Greater Kansas City Area:** Respiratory therapists employed in the Greater Kansas City area earned an average annual salary of \$36,400 in September 1997. The lowest paid 10% earned less than \$31,034 and the highest paid 10% earned more than \$35,714 per year.

**State:** Respiratory therapists working in Kansas in 1996 earned an average annual wage of \$31,054.

**National:** Median annual earnings for respiratory therapists who worked full-time in 1996 were \$33,072. The middle 50% earned between \$26,312 and \$39,884. The lowest paid 10% earned less than \$19,084 and the highest paid 10% earned more than \$50,856. According to a Hay Group survey of acute care hospitals, the median annual base salary for full-time respiratory therapists was \$32,500 in January 1997. The middle 50% earned between \$29,300 and \$35,000 per year.

***JCCC Career Program Completers:*** An average annual salary of \$30,118 was reported by respiratory care program completers working full-time in a job related to respiratory care who responded to the January 1998 short-term follow-up study of 1996-97 career program completers. The average annual salary was \$29,370 for males and \$30,347 for females.

An average annual salary of \$32,386 was reported by 1993-94 respiratory care program completers working full-time in a job related to respiratory care who responded to the long-term follow-up study conducted in 1998.

### **JCCC Placement Information**

Nearly 91 % of respiratory care program completers responding to the 1998 short-term follow-up study and all of the respiratory care program completers responding to the 1998 long-term follow-up study were working in a job related to respiratory care.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

**RETAIL SALES REPRESENTATIVE  
SERVICE SALES REPRESENTATIVE  
TELESERVICE REPRESENTATIVE**

As in the past, employment opportunities for retail sales workers are expected to continue to be good because of the many job openings created each year due to the need to replace the large number of workers who transfer to other occupations or leave the labor force. Additional openings will be created by growth in employment of retail sales workers, which is expected to increase about as fast as the average for all occupations through the year 2006 due to anticipated growth in retail sales created by a growing population.

**Employment Information**

**Greater Kansas City Area:** Retail salespersons held 28,115 jobs in the Greater Kansas City area in 1995. Approximately 31,867 jobs are projected by the year 2005 (+13%), with 1,188 average annual openings, including replacements, anticipated. First line sales supervisors held 18,130 jobs in 1994, with 21,262 jobs projected by the year 2005 (+17%). Approximately 611 average annual supervisory openings and 1,188 average annual retail sales openings, including replacements, are anticipated.

**State:** Retail sales workers held 46,390 jobs in Kansas in 1996, with 40,080 jobs projected by 2005 (+18%). Approximately 1,500 average annual openings are projected, including replacements.

**National:** Retail salespersons held nearly 4.1 million jobs in 1996, with 4.5 million jobs projected by 2006 (+10%). Approximately 1.3 million average annual openings, including replacements, are anticipated.

**Salary Information**

**Johnson County:** Retail salespersons earned an average hourly wage of \$8.29 in Johnson County, Kansas in 1996.

**Greater Kansas City Area:** The average hourly wage for sales occupations as a whole was \$9.26 in the Greater Kansas City area in September 1997. The lowest 10% earned less than \$6.00, and the highest 10% earned more than \$23.74 per hour.

**State:** Retail salespersons earned \$7.30 per hour on the average in Kansas in 1996, with a median hourly wage of \$5.94 reported.

**National:** Starting wage for many retail sales positions is the federal minimum wage, which was \$5.15 per hour in 1997. In some areas where employers have difficulty attracting and retaining workers, wages are higher than the established minimum.

## **JCCC Placement and Salary Information**

**These programs have not been offered at JCCC for a sufficient period of time to provide data from follow-up studies.**

## SALES AND CUSTOMER RELATIONS

Overall, employment of manufacturers' and wholesale sales representatives is expected to grow about as fast as the average for all occupations through the year 2006 due to continued growth in the amount of goods provided that need to be sold. Unlike many other occupations, technology is not expected to have a dramatic effect on the demand for these workers because sales workers will still be needed to go to the prospective customer in order to demonstrate or illustrate the particulars about the good or service. Technology is expected, however, to make them more effective and productive because it allows them to provide accurate and current information to customers during sales presentations.

Individuals interested in pursuing a career in sales should be enthusiastic, outgoing, self-confident, disciplined, hard working, and able to communicate effectively. They should be able to inspire customer confidence and work with little or no supervision. Some companies give personality tests to prospective employees because personality attributes are so important in sales work. Earnings usually increase rapidly with experience, and opportunities for advancement are good for those possessing sales ability and leadership skills.

### Employment Information

**Greater Kansas City Area:** Over 80,400 workers were employed in sales occupations in the Greater Kansas City area in 1994, with 91,774 jobs projected by the year 2005 (+14%). Approximately 1,977 average annual openings, including replacements, are projected.

**State:** Sales and related occupations offered employment to 140,840 individuals in Kansas in 1993, with 168,430 jobs projected by 2005 (+20%). Approximately 6,090 average annual openings, including replacements, are anticipated. Marketing and sales supervisors held 19,060 jobs in 1993, with 22,700 jobs projected in Kansas by 2005 (+19%) and 350 average annual openings projected, including replacements.

**National:** Approximately 14.6 million workers were employed in marketing and sales occupations in 1996, with 16.9 million jobs projected by 2006 (+16%). Approximately 4.1 million average annual openings, including replacements, are anticipated.

### Salary Information

**Johnson County:** Sales representatives (except scientific) earned an average annual salary of \$35,422 in Johnson County, Kansas in 1996, and scientific and related sales representatives averaged \$49,941.

**Greater Kansas City Area:** Mining, manufacturing, and wholesale sales representatives earned a median annual salary of \$58,718 in the Greater Kansas City area in September

1997. The lowest 10% earned less than \$22,006 and the highest 10% earned more than \$79,782 per year.

**State:** Sales representatives, except retail and scientific and related products and services, earned an average annual wage of \$33,176 in Kansas in 1996.

**National:** Compensation methods vary significantly by the type of firm and product sold. However, most employers use a combination of salary and commission or salary plus bonus. Commissions are usually based on the amount of sales, whereas bonuses may depend on individual performance, on the performance of all sales workers in the group or district, or on the company's performance. Successful sales representatives who establish a strong customer base can earn more than managers in their firm.

Median annual earnings for full-time manufacturers' and wholesale sales representatives were about \$36,100 in 1996. The bottom 10% earned less than \$16,700 and the top 10% earned more than \$75,000 per year. Earnings vary by experience and the type of goods or services sold.

### **JCCC Salary and Placement Information**

This program has not been offered at JCCC for a sufficient length of time to provide data from follow-up studies of JCCC career program completers.

## TRAVEL AND TOURISM

Employment of travel agents is expected to grow faster than the average for all occupations through 2006. Many job openings will arise as new agencies open and existing agencies expand, but most will occur as experienced agents transfer to other occupations or leave the labor force. Some developments may reduce job opportunities for travel agents in the future. The Internet allows people to access travel information from their personal computers and make their own travel arrangements. Suppliers of travel services are increasingly able to make their services available through other means, such as electronic ticketing machines and remote ticket printers. Also, airline companies have put a cap on the amount of commissions they will pay to travel agencies. The full effect of these practices has yet to be determined as many consumers prefer to use a professional travel agent to ensure reliability and save time and, in some cases, money.

### Employment Information

**Greater Kansas City Area:** Approximately 1,589 travel agents were employed in the Greater Kansas City area in 1994, with 1,894 jobs projected by the year 2005 (+19%). About 66 average annual openings, including replacements, are anticipated.

**State:** About 890 travel agents held jobs in Kansas in 1993, with 1,200 jobs projected by 2005 (+35%). Approximately 50 average annual openings, including replacements, are anticipated.

**National:** Travel agents held 142,000 jobs in 1996, with 176,000 jobs projected by 2006 (+24%). Approximately 19,000 average annual openings are anticipated, including replacements.

### Salary Information

**Johnson County:** Travel agents employed in Johnson County, Kansas in 1996 earned an average hourly wage of \$10.93.

**Greater Kansas City Area:** Travel agents working in the Greater Kansas City area as a whole earned an average hourly wage of \$8.48 in 1994. The highest reported wage was \$12.50, and the lowest was \$4.25 per hour. In Johnson, Leavenworth, Miami, and Wyandotte Counties travel agents earned between \$7.64 and \$8.79 on the average in 1995. The lowest paid earned less than \$5.12 and the highest paid earned more than \$13.76 per hour, on the average.

**State:** Travel agents earned an average hourly wage of \$10.43 in Kansas in 1996.

**National:** Experience, sales ability, and the size and location of the agency determine the salary of a travel agent. The 1996 median hourly wage was \$7.89 for travel agents with



less than 1 year of experience; \$9.81 for those with 1-3 years, \$10.72 for those with 3-5 years, \$12.64 for those with 5-10 years, and \$15.67 for travel agents with more than 10 years of experience. Agencies focusing on corporate sales pay higher salaries and provide more extensive benefits, on the average, than those focusing on leisure travel.

### **JCCC Salary and Placement Information**

This program has not been offered at JCCC for a sufficient length of time to provide data from follow-up studies of JCCC career program completers.

Note. Because the travel and tourism program is a cooperative effort through the Metropolitan Community College District, salary and placement data are collected primarily on students initiating their studies at JCCC and are thus incomplete. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

## VETERINARY TECHNOLOGY

Employment opportunities for animal caretakers (the closest occupational category for which employment projection data were available) are expected to grow faster than the average for all occupations through the year 2006. The growth of the pet population, which drives employment of animal caretakers in kennels, grooming shops, animal shelters, and veterinary clinics and hospitals, is expected to slow. Nevertheless, pets remain popular and pet owners--including a large number of baby boomers whose disposable income is expected to increase as they age--may increasingly take advantage of grooming services, daily and overnight boarding services, and veterinary services, spurring employment growth for animal caretakers and veterinary assistants.

Veterinary technicians and technologists perform medical tests in a laboratory environment for use in the treatment and diagnosis of diseases in animals. They prepare vaccines and serums for prevention of diseases, prepare tissue samples, take blood samples, and execute laboratory tests such as urinalysis and blood counts. Other duties include cleaning and sterilizing instruments and materials and maintaining equipment and machines. Students enrolled in the veterinary technology program study sanitation and animal care, the preparation of animals for surgery, and anesthetic management. They also perform lab work and use radiologic techniques as a part of their career preparation.

### Employment Information

**Greater Kansas City Area:** Veterinary assistants and veterinary technicians held 470 jobs in the Greater Kansas City area in 1994, with 489 jobs projected by 2005 (+4%). Approximately 12 average annual openings, including replacements, are anticipated.

**State:** Veterinary assistants held 180 jobs in 1993, with 300 jobs projected by 2005 (+67%). Approximately 10 average annual openings are projected, including replacements.

**National:** Veterinary assistants held 33,000 jobs nationwide in 1996, with 42,000 jobs projected by 2006 (+28%). Approximately 11,000 average annual openings, including replacements, are anticipated.

**Career Program Completers:** All of the veterinary technology program completers responding to the 1998 long-term follow-up study of 1993-94 career program completers and one of the two respondents to the 1998 short-term follow-up study of 1996-97 completers were working in a job related to veterinary technology.

### Salary Information

**Johnson County:** Veterinary technicians and technologists employed in Johnson County, Kansas in 1996 earned an average of \$10.10 per hour, and veterinary assistants averaged \$7.48 per hour.

**State:** Veterinary technicians and technologists in Kansas earned an average hourly wage of \$7.87 in 1996, the last year for which data were available.

**National:** Animal caretakers overall earned an average hourly wage of \$7.25 in 1996. The middle 50% earned between \$5.50 and \$9.50, and the top 10% earned more than \$12.50 per hour.

**Career Program Completers:** The wage reported by the one 1998 respondent to the short-term follow-up study of 1996-97 career program completers who was employed full-time in a job related to veterinary technology was \$10.00 per hour. Respondents to the 1998 long-term follow-up of 1993-94 career program completers who were employed full-time in a job related to veterinary technology reported an average hourly wage of \$12.93.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

Because the veterinary technology program is a cooperative effort through the Metropolitan Community College District, salary and placement data are collected primarily on students initiating their studies at JCCC and are thus incomplete.

## **OTHER JCCC CAREER PROGRAMS FOR WHICH MINIMAL OUTLOOK INFORMATION WAS AVAILABLE**

### **Business Entrepreneurship**

JCCC's business entrepreneurship program teaches the fundamentals of starting and operating a business. Course work covers preparing a business plan, obtaining financing, planning advertising and sales promotions, marketing a product or service and developing an accurate accounting system. Entrepreneurs who already have their business established can strengthen their managerial and business skills through this course of study.

The business entrepreneurship program has not been offered at JCCC for a sufficient length of time to provide reliable data from follow-up studies of JCCC career program completers. However, the three respondents to the 1997 short-term follow-up study of 1995-96 completers were all employed in a related job and reported an average hourly wage of \$17.50. There were no respondents either to the 1998 short- or long-term follow-up studies from the business entrepreneurship program.

### **Industrial Programmable Controls**

The industrial programmable controls program was developed to meet the needs of manufacturing, business, and industry for workers skilled in sequencing operations by means of microprocessor-based equipment rather than through the use of electrical wiring, motors, belts, etc. The industrial programmable controls certificate was designed for electricians, electronics technicians, engineers, maintenance personnel and others involved in industrial processes. The courses teach programming for relay logic, timers, counters, block transfer, analog and networking. Salary and placement information for completers of the industrial programmable controls certificate program is integrated into the overall results for the electronics program. Results of both the short-term and long-term follow-up studies conducted in 1998 indicated nine out of ten completers of the electronics program were employed in a related job and earning an average hourly wage of \$13.41 and \$17.29, respectively.

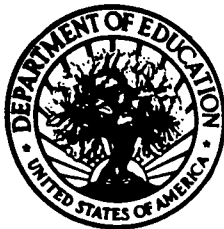
### **Interpreter Training**

JCCC's interpreter training program concentrates on developing skills in American Sign Language, deaf culture and finger spelling interpretation. As the population grows, so will the number of people with hearing problems and the need for interpreters.

Nearly 86% of the respondents to the short-term follow-up study of the 1996-97 career program completers conducted in January 1998, and 60% of the respondents to the long-term follow-up study of the 1993-94 completers conducted in 1998 were working in a job related to interpreter training; the remainder were employed in unrelated jobs. Respondents reported an average hourly wage of \$11.76 and \$14.48, respectively.



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