

## DOCUMENT RESUME

ED 457 929

JC 010 686

TITLE Follow-Up Study of Fiscal Year 2000 Occupational Program Graduates.

INSTITUTION Illinois Community Coll. Board, Springfield.

PUB DATE 2001-10-00

NOTE 99p.

PUB TYPE Numerical/Quantitative Data (110) -- Reports - Research (143)

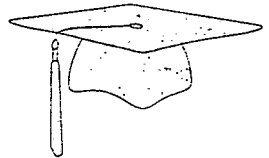
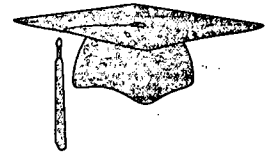
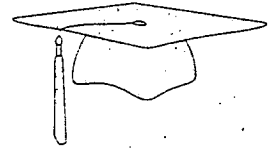
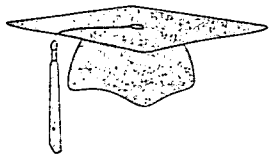
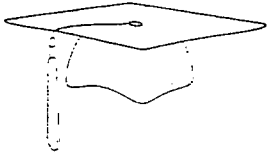
EDRS PRICE MF01/PC04 Plus Postage.

DESCRIPTORS \*Community Colleges; \*Education Work Relationship; \*Employment; Futures (of Society); Graduate Surveys; Job Training; Two Year Colleges; Vocational Education; \*Vocational Followup

IDENTIFIERS \*Illinois Community College System

## ABSTRACT

This report is a follow-up study of fiscal year 2000 occupational program graduates of Illinois community colleges. Data for the report were obtained from responses to a standardized survey that addressed attendance objective, education status, employment status, salary, employment start-up, geographic location of employment, satisfaction with employment, and components of the educational program completed. Part 1 of this report provides an overall summary of survey outcomes, which include: (1) 86% of occupational program graduates were employed; (2) among working graduates, 87% were employed full-time, 74% were employed in positions related to their field of study, 75% obtained positions while enrolled or after graduating, 93% were employed in Illinois (two-thirds remained in the district where they received training), and the average salary was \$15.63/hr (3 times the minimum wage); and (3) graduates expressed satisfaction with their current positions, with components of their program, and with college services. Part 2 includes an in-depth analysis of survey results by comparing year 2000 results to 1995 results according to specific program areas. Highlights for this section include: (1) computer and data processing have grown dramatically in recent years and employment is expected to grow 117% by 2008; and (2) in Illinois, employment of telephone installers and repairers is expected to decrease sharply through 2008. Various tables are appended. (Contains 22 references.) (KP)



# FOLLOW-UP STUDY

## of Fiscal Year 2000 Occupational Program Graduates



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October 2001

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**FOLLOW-UP STUDY OF FISCAL YEAR 2000  
OCCUPATIONAL PROGRAM GRADUATES**

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Illinois Community College Board

**FOLLOW-UP STUDY OF FISCAL YEAR 2000  
OCCUPATIONAL PROGRAM GRADUATES**

**Introduction**

Community college workforce programs play a pivotal role in training new workers, upgrading the skills of those currently employed, and retraining dislocated workers. As the economic climate changes, community colleges in collaboration with workforce preparation partners anticipate a need to provide additional direct assistance to dislocated workers. Recent reports suggest that after a period of sustained growth the economy has weakened and is moving in a recessionary direction. According to CNN (2001), Department of Labor figures show that during the last week of September 2001 nationwide *new* claims for unemployment benefits increased to the highest level in nine years to 528,000. Job cuts in the aftermath of the September 11 attacks negatively impacted the economy particularly in travel and tourism. Since mid-September, more than 200,000 layoffs have occurred in the airline and travel industries. Diminished air travel and the accompanying layoffs is not good news for Illinois — home of Chicago's O'Hare Airport, which is normally among the busiest airports in the country, as well as Midway Airport, which has shown growth in recent years. In addition, Boeing's headquarters are in Illinois. Relatedly, as this analysis is being written, convention business in Illinois is being negatively impacted by recent events. According to Tourism Industries (2001) for calendar year 2000, Illinois was the fourth most frequently visited state with 1.4 million visitors. Arndorfer (2001) reported that the Chicago-area economy lost at least \$1.05 billion the week after the terrorist attacks impacting the airports, financial exchanges, and other areas.

Additional Department of Labor information indicates that the labor market was under intense pressure even prior to the September 11 terrorist attacks. Crutsinger (2001) reports that manufacturing companies laid off 93,000 workers in September, which was the 14 consecutive month of job losses among factory workers. Over that period, 1.1 million manufacturing industry workers lost their jobs. According to Crutsinger (2001), there are economists predicting that the unemployment rate in October 2001 may surge to 5.3 percent or higher due to the widespread layoffs that have already occurred. The economy was weakening prior to the events of September 11, and some economists think those events contributed to the beginning of a recession that could last for at least six months.

Grubb and Bragg (1997) from the National Center for Research in Vocational Education contend that community colleges have come to the forefront of occupational, career, and technical education, which is conceived as preparation for the critical mid-level skilled occupations in the labor force. These occupations, representing about 60 percent of the workforce are growing rapidly and are expected to play a major role in America's efforts to maintain and gain additional stature as a world-class competitive power. They can also play an important role in economy recovery. Grubb and Bragg (1997) contend that, based on several different national data sets, significant economic benefits of completing associate degrees and certificates can be documented — especially in fields of study related to business and technical fields for males and

health occupations for females. Furthermore, the benefits are highest for those in occupational fields who find jobs related to their areas of study, making close connections between occupational programs and local employers highly important.

The Illinois Community College System's *Occupational Follow-up Study Report* provides information from graduates of selected occupational programs regarding the effectiveness of their college experience. Data for the report were obtained from responses to a standardized survey. The survey instrument addresses attendance objective, education status, employment status, salary, employment start-up, geographic location of employment, and satisfaction with employment and components of the educational program completed. Such information has implications for colleges as they develop new program proposals and perform program review in order to ensure that they stay in step with the changing job market, thus providing for satisfactory employment and compensation for their graduates. Part I of this report provides an overall summary of survey outcomes. Part II includes an in-depth analysis of survey results according to specific program areas for colleges to use in reviewing their programs during the coming year. The Appendices contain data tables derived from the results of the survey. Appendix A presents a summary of responses by college and response rates by program area. Appendix B provides information by survey item, and Appendix C presents data by both college and program.

A total of 2,766 (Table A-2) former students who graduated from selected Illinois community college programs in fiscal year 2000 were surveyed in March 2001. For most graduates, this was approximately six to nine months after program completion. Following receipt of the completed surveys, graduates from the following program areas were eliminated from the statewide analysis due to a low number of responses or low number of graduates: Advertising, Journalism, Public Relations and Organizational Communications, Educational/Instructional Media Technology/Technician, Radio and Television Broadcasting Technology/Technician, Computer Engineering Technology/Technician, Biomedical Engineering-Related Technology/Technician, Electromechanical Technology/Technician, Instrumentation Technology/Technician, Fluid Power Technology, Fashion and Fabric Consultant, Corrections/Correctional Administration, Security and Loss Prevention Services, Criminal Justice and Corrections-Other, Criminology, Electrical and Electronics Equipment Installer and Repairer, Major Appliance Installer and Repairer, Woodworkers, Hospital/Health Facilities Administration, Health Unit Coordinator/Ward Clerk, Medical Office Management, and General Management Information Systems and Business Data processing programs. Removing the 41 selected graduates and their responses resulted in the utilization of 1,647 responses from a pool of 2,725 graduates. Therefore, the survey yielded a usable response rate of 60.4 percent (Table A-1). Table A-2 shows response rates by program.

The majority of graduate respondents (72.6 percent) came from programs in three broad CIP areas: Business Information and Data Processing Services, Criminal Justice and Corrections, and Electrical and Electronic Engineering-Related Technology. Graduates from the remaining program areas combined accounted for the remaining 27.4 percent of the respondents. Overall, results are influenced by differences in program size and in the number of graduates responding to particular questions. Percentages cited throughout the report reflect the number of responses to each question.

**Table 1**  
**OCCUPATIONAL PROGRAM AREAS SURVEYED IN FY 2001**  
**BY CIP CATEGORY**

CIP	Title
090201	ADVERTISING*
0904	JOURNALISM AND MASS COMMUNICATIONS*
090401	Journalism*
090501	PUBLIC RELATIONS AND ORGANIZATIONAL COMMUNICATIONS *
090701	RADIO AND TELEVISION BROADCASTING
1001	COMMUNICATIONS TECHNOLOGIES
100101	Educational/Instructional Media Technology/Technician*
100104	Radio and Television Broadcasting Technology/Technician*
1503	ELECTRICAL AND ELECTRONIC ENGINEERING-RELATED TECHNOLOGY
150301	Computer Engineering Technology/Technician*
150303	Electrical, Electronic and Communications Engineering Technology/Technician
150310	Telecommunication Electronics technology
1504	ELECTROMECHANICAL INSTRUMENTATION AND MAINTENANCE TECHNOLOGY
150401	Biomedical Engineering-Related Technology/Technician*
150402	Computer Maintenance Technology/Technician
150403	Electromechanical Technology/Technician*
150404	Instrumentation Technology/Technician*
150405	Robotics Technology/Technician
150410	Fluid Power Technology*
150411	Automated Manufacturing Technology
2003	CLOTHING, APPAREL AND TEXTILES WORKERS AND MANAGERS*
200306	Fashion and Fabric Consultant*
2201	LAW AND LEGAL STUDIES
220103	Paralegal/Legal Assistant
4301	CRIMINAL JUSTICE AND CORRECTIONS
430102	Corrections/Correctional Administration*
430107	Law Enforcement/Police Science
430109	Security and Loss Prevention Services*
430199	Criminal Justice and Corrections, Other*
450401	CRIMINOLOGY*
4603	ELECTRICAL AND POWER TRANSMISSION INSTALLERS
460302	Electrician

**Table 1**  
**OCCUPATIONAL PROGRAM AREAS SURVEYED IN FY 2001**  
**BY CIP CATEGORY**  
(Continued)

CIP	Title
4701	ELECTRICAL AND ELECTRONICS EQUIPMENT INSTALLERS AND REPAIRERS
470101	Electrical and Electronics Equipment Installer and Repairer, General*
470103	Communications Systems Installer and Repairer
470104	Computer Installer and Repairer
470105	Industrial Electronics Installer and Repairer
470106	Major Appliance Installer and Repairer*
480701	WOODWORKERS*
5107	HEALTH AND MEDICAL ADMINISTRATIVE SERVICES
510702	Hospital/Health Facilities Administration*
510703	Health Unit Coordinator/Ward Clerk*
510705	Medical Office Management*
510707	Medical Records Technology/Technician
510708	Medical Transcription
5212	BUSINESS INFORMATION AND DATA PROCESSING SERVICES
521201	Management Information Systems and Business Data Processing, General*
521202	Business Computer Programming/Programmer
521203	Business Systems Analysis and Design
521204	Business Systems Networking and Telecommunications
521205	Business Computer Facilities Operator

\* Excluded from state report due to low number of graduates or low response rates.

### Part I: STATEWIDE OVERVIEW

Follow-up surveys were mailed to graduates of the selected occupational programs identified in Table 1 in spring 2001, approximately six to nine months after graduation. Graduates reported the following:

- ▶ 92.1 percent were employed or pursuing additional education or both (Table B-1).
- ▶ 86.1 percent of the occupational completers were employed (Table B-2).

Among working graduates,

- ▶ 86.7 percent held full-time status in their current jobs (Table B-2).

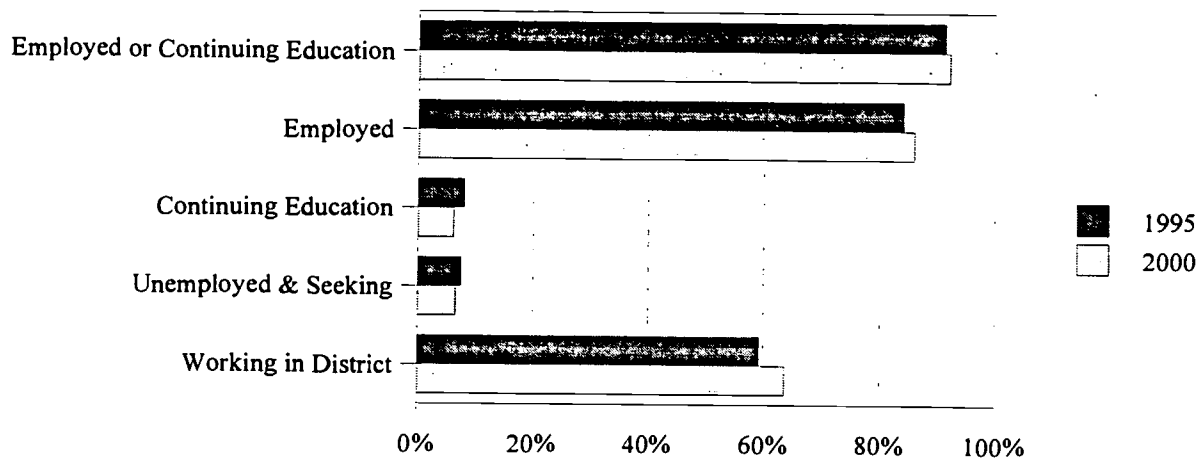


- ▶ 74.3 percent were employed in positions related to the field in which they studied at the community college (Table B-5).
- ▶ 74.7 percent obtained their current positions while enrolled or after graduating (Table B-7)
- ▶ 92.6 percent were employed in Illinois. Of those, more than two-thirds remained in the district where they received their training (Table B-8).
- ▶ The average salary was \$15.63 per hour, 3.1 times the minimum wage at the time (\$5.15 per hour) (Table B-9).
- ▶ Graduates employed in full-time positions earned the equivalent of about \$34,091 annually.
- ▶ The average rate of unemployment (the percent of graduates who were unemployed and seeking work) was 6.7 percent (Table B-2).
- ▶ Nearly 30 percent of the respondents were pursuing additional education. Seventy-eight percent of those enrolled in further study were taking course work in a related field (Table B-4).
- ▶ Graduates employed in positions related to their community college program were satisfied with their current positions (4.19 on a five-point scale, with 5 being very satisfied and 0 being very dissatisfied). Including nonrelated positions, job satisfaction averaged 3.98/5.00 (Table B-10).
- ▶ On average, graduates expressed satisfaction ( $M=4.18/5.00$ ) with components of their program (course content, lecture/lab experiences, equipment, facilities and materials, job preparation, preparation for further education, and labor market employment information) (Table B-11).
- ▶ Graduates were also satisfied with college services, such as financial aid, academic advising, career planning, transfer planning, counseling, tutoring, library/audio visual, student activities) awarding an average rating of 4.10/5.00 (Table B-12).

Graduates from similar program areas were surveyed five years ago. A comparison of follow-up survey outcomes from 1995 and 2000 (Figure 1) reveals more similarities than differences. A slightly larger proportion of recent graduates were employed, continuing their education or both (92 percent for 2000 versus 91 percent for 1995). The percentage of graduates employed in 1995 was 84 percent versus 86 percent for the recent completers. A slight decrease was noted in the percentage of survey respondents pursuing additional education among more recent graduates (6.3 percent for 2000 versus 8.1 percent for 1995). The percentage of recent graduates who were unemployed and seeking work is slightly lower currently at 7 percent versus an 8 percent unemployment rate reported five years earlier. A higher percentage of current graduates were working in the community college district in which they received their training (64 percent in 2000 versus 59 percent in 1995). Earnings were up as the average hourly wage of \$15.63 increased \$3.22



from five years ago for all workers. (Note that the minimum wage increased \$0.90 over the same period of time.) A larger percentage of the 2000 graduates were employed in their current position during program enrollment (33.6 percent among 2000 completers versus 29.0 percent for 1995 completers). There was a slight decrease in the percentage of graduates who were employed in their current positions prior to program entrance (25.4 percent for 2000 versus 26.5 percent for 1995).



**Figure 1.** Comparison of Occupational Graduates: FY 1995 & FY 2000

Generally, more recent graduates exhibited slightly higher satisfaction ratings. Workers in both studies reported high levels of satisfaction with their jobs ( $\bar{M}$  = 3.98 for 2000 and  $\bar{M}$  = 3.89 for 1995). Likewise, graduates reported high levels of satisfaction with major program components ( $\bar{M}$  = 4.18 for 2000 completers and  $\bar{M}$  = 4.08 for 1995 completers) and college services ( $\bar{M}$  = 4.10 for 2000 and  $\bar{M}$  = 4.09 for 1995).

## Part II: PROGRAM-SPECIFIC ANALYSIS

*Computer and data processing have grown dramatically in recent years and employment is expected to grow about 117 percent by the year 2008, making it the fastest growing industry in the U.S. economy (Occupational Outlook Today, Career Guide, 2001).*

### **Business Information and Data Processing Services.**

Today and into the future, organizations rely on computers and information technology to conduct business and increase efficiency. Organizations strive to effectively implement new technologies and satisfy the changing needs of the establishment through computer and data processing services. Services provided by this industry include customized computer

programming and applications, information retrieval services, including online databases and Internet services; integrated systems design and development and management of databases; on-site computer facilities management; and a variety of other specialized information services (Occupational Outlook Today, Career Guide, 2001).

Nationwide, computer and data processing service employment increased by more than 900,000 jobs from 1988 to 1998. In 1998, there were around 1.6 million wage and salary jobs and an additional 216,000 self-employed workers, making it one of the largest industries in the economy. Computer and data processing has grown dramatically in recent years and employment is expected to grow

about 117 percent by the year 2008, making it the fastest growing industry in the U.S. economy (*Occupational Outlook Today, Career Guide, 2001*).

General Management Information Systems and Business Data Processing was excluded from the analysis due to the small number of respondents. The four community college business information and data processing service programs included in this year's report are:

<u>Program Area</u>	<u>CIP Code</u>
Business Computer Programming/Programmer	521202
Business Systems Analysis and Design	521203
Business Systems Networking and Telecommunications	521204
Business Computer Facilities Operator	521205

*Computer programmers is one of the 50 occupations expected to provide the most job openings each year in Illinois. The continuing growth in the computer and data processing services industry will open new jobs for programmers (Horizons, 2001).*

**Business Computer Programming/Programmer.** Computer programmers write programs and other instructions which enable computers to perform desired tasks. Business applications programmers usually have one or two years of training in programming. This is supported by training or experience in accounting, business administration or math. Individuals in this field first decide what

information will be needed to solve a problem. Next, they prepare a flowchart or general descriptive outline of the problem solving approach. Using the flowchart, they write complete, step-by-step instructions for the computer. The program is then tested, errors are corrected, and operational procedures are recorded. Additionally, many programmers are involved in maintenance programming that involves updating, repairing, modifying and expanding existing programs (*Horizons 2001*, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&235400&tr>; *Occupational Outlook Handbook 2001*, <http://stats.bls.gov/oco/ocos110.htm>).

While there are many training paths available for programmers due to widely varied employer needs, the level of education and experience sought has been rising. This is in response to the growing number of qualified applicants and increasing complexity of some programming tasks. Bachelor's degrees are commonly required. Programmers can qualify for many jobs with two-year degrees or certificates. (*Horizons 2001*, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&235400&tr>).

Employment of programmers is expected to grow faster than average through 2008 nationally and in Illinois. Computer programmers is one of the 50 occupations expected to provide the most job openings each year in Illinois. The continuing growth in the computer and data processing services industry will open new jobs for programmers (*Horizons 2001*, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&235400&tr>).

Business Computer Programming was the largest single occupational program in the Illinois community college system in fiscal year 2000 with 11,944 students enrolled. Forty-one community colleges reported results from 562 graduates for a response rate of 58.9 percent. Note that results from this program account for over one-third of all the respondents to this year's occupational follow-up survey. Hence, Business Computer Programming results have a substantial impact on overall report results. The three colleges contributing the largest number of respondents were the College of DuPage (14.8 percent); William Rainey Harper College (9.4 percent) and Richard J. Daley College (8.7 percent) – combined to account for about one-third of all Business Computer Programming completers.

Nearly 90 percent of Business Computer Programming graduates were working (64.9 percent) pursuing additional education (8.6 percent) or simultaneously involved in both (26.5 percent). Unemployment levels were higher than anticipated at 10.5 percent (N = 56). It should be noted that almost one-third of those reported as unemployed were enrolled in additional education when surveyed.

Forty-nine graduates indicated that they were not actively seeking employment. Reasons for not being a part of the labor force included: full-time student status (N = 20); family responsibilities (N = 12); full-time homemaker (N = 7); other/not specified (N = 6); and Health disability (N = 4).

Approximately 86 percent of the Business Computer Programming graduates were in full-time positions. Three-quarters of all working graduates were in positions related to their training. The 115 graduates working in an unrelated position provided the following reasons for working in another field: could not find job in field (N = 35); other (N = 29); temporary job (N = 18); preferred to work in another field (N = 14); took another job for preferred hours (N = 9); found better pay in another field (N = 4); did not pass certification (N = 3); worked previously in field but changed (N = 1); and preferred not to move (N = 1). Nearly 7 percent of all Business Computer Programming graduates reported a negative reason for employment in another field (lack of available jobs or no certification).

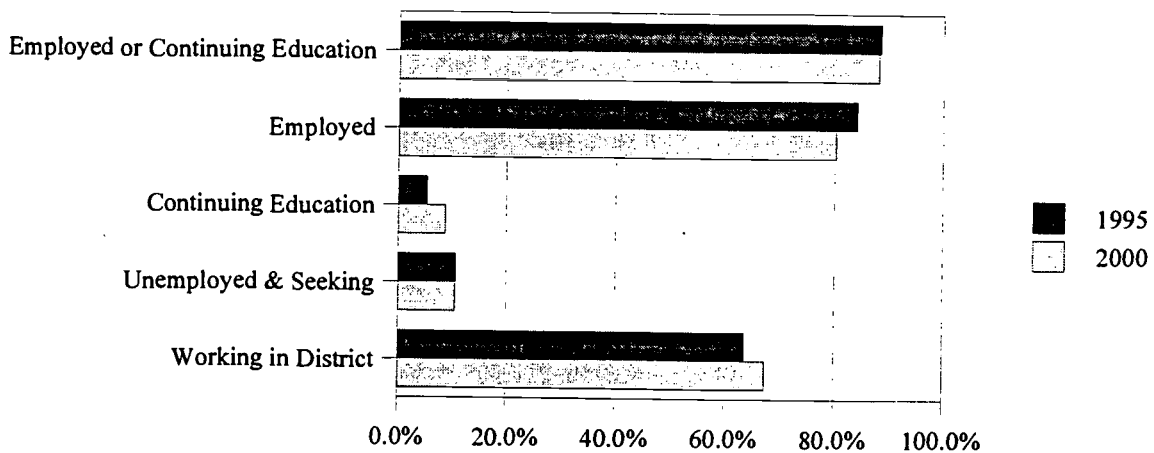
Three-quarters of the Business Computer Programming graduates located their current employment while enrolled at the community college (37.9 percent) or after graduating (38.1 percent). The remaining 99 graduates were upgrading skills and remained in jobs they had prior to program entry.

Two-thirds of the Computer Programming completers were working in the district where they received training. Just over one-quarter were working in Illinois but out-of-district and the remaining 5.1 percent were working outside of Illinois.

Community college system Business Computer Programming graduates in full-time positions earned \$17.02 per hour or approximately \$35,402 per year. Graduates from this program were among the better compensated completers among all those surveyed this year. Wages among college graduates were competitive. A 1999 National Association of Colleges and Employers survey reported entry-level salaries for computer programmers with baccalaureate degrees average \$40,935 per year. According to a 1999 Bureau of Labor Statistics survey, average salary for computer programmers with all types of training was \$46,696 per year. The 1998 *Occupational Wage Survey for Illinois* reports average salaries ranging from \$33,051-\$67,746/year (*Horizons* 2001, <http://www.ioicc>).

state.il.us/scripts/ilicis/info.exe?occ&235400&tr). The 2000 *Occupational Wage Survey for Illinois* reports average salaries ranging from \$15.20 an hour to \$29.11 per hour.

As anticipated, graduates working as computer programmers were more satisfied with their careers ( $\bar{M} = 4.01$ ) than those employed in unrelated fields ( $\bar{M} = 3.20$ ). Overall, Business Computer Programming graduates were satisfied with the components of their major programs ( $\bar{M} = 4.13$ ) and the services they received ( $\bar{M} = 4.05$ ). Highest rated program components included course content ( $\bar{M} = 4.35$ ), lecture/lab experience ( $\bar{M} = 4.34$ ) and equipment/ facilities/materials ( $\bar{M} = 4.34$ ). Labor market information ( $\bar{M} = 3.63$ ) and job preparation ( $\bar{M} = 3.88$ ) were the lowest rated program components. Ratings were relatively consistent on the services with career planning ( $\bar{M} = 3.79$ ), academic advising ( $\bar{M} = 3.90$ ), transfer planning ( $\bar{M} = 3.91$ ), and counseling ( $\bar{M} = 3.92$ ) rated just slightly lower than the others. Audio/visual services ( $\bar{M} = 4.40$ ) were rated slightly higher.



**Figure 2.** Business Computer Programming/Programmer Graduates: FY 1995 & FY 2000

Comparisons between fiscal year 2000 business computer programming/programmer graduates and 1995 completers both show generally positive outcomes. As Figure 2 illustrates, graduates who were employed, continuing education, or both were about the same (88 percent). Recent graduates exhibited higher rates of participation in additional education (8.6 percent for 2000 versus 5.3 percent for 1995) while 1995 completers had slightly higher employment (84.2 percent for 1995 versus 80.3 percent for 2000). Recent graduates had slightly higher rates of employment within the community college district where they were trained (67.5 percent for 2000 versus 63.7 percent for 1995). The unemployment rate for fiscal year 2000 and fiscal year 1995 were about the same (10.5 percent).

*Nationwide and in Illinois, opportunities for systems analysts are expected to grow much faster than the average for all occupations through 2008 (Horizons, 2001).*

**Business Systems Analysis and Design.**

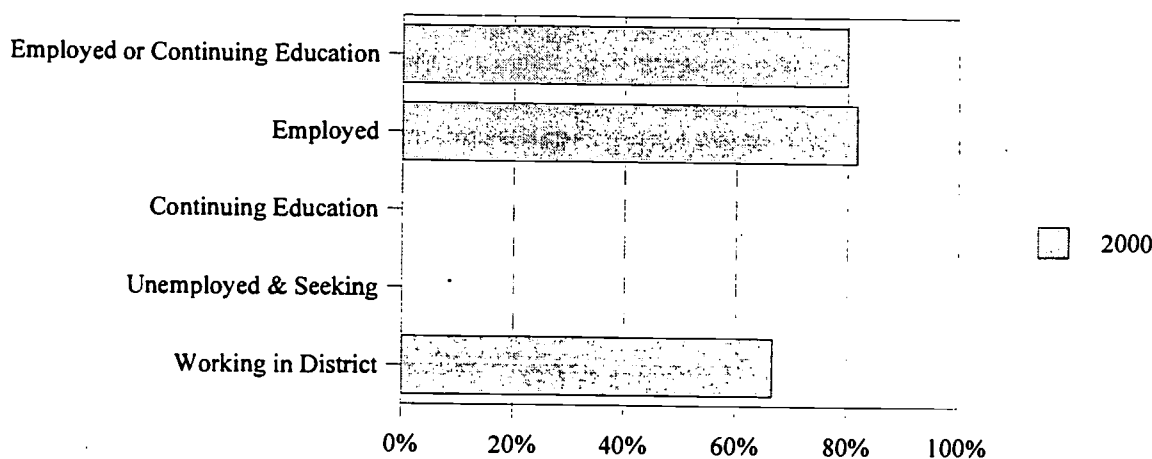
Systems analysts plan data processing systems to meet the needs of business. They work with managers to examine organizational needs and priorities and the extent to which new data systems are needed or existing data systems can be modified to generate needed information. They frequently perform cost/benefit studies to

test the efficiency of data processing systems. They choose electronic equipment capable of performing the job and prepare instructions for programmers once they have completed their research. Some analysts, called programmer analysts, work through the entire project, including the generation of coding to perform desired functions. (*Horizons* 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&235300&tr>).

According to *Horizons* (2001), in Illinois there are 38,250 systems analysts in business, scientific, and engineering fields. Approximately 83 percent of the systems analysts were employed in Northeastern Illinois (31,570). Employment distribution across the remainder of the state follows: Northwestern Illinois — 2,800; East Central Illinois —1,650; West Central Illinois —920; Southwestern Illinois — 830; and Southeastern Illinois —480. (*Horizons* 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&235300&tr>).

Systems analysts is one of the top 50 fastest growing occupations in Illinois. Nationwide and in Illinois, employment of systems analysts is expected to grow much faster than the average for all occupations through 2008. As technology becomes more sophisticated and organizations continue to adopt and integrate these technologies, employment of computing professionals is expected to increase rapidly. Additionally, very fast growth in the computer and data processing service industries is anticipated. (*Horizons* 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&235300&tr>, *Occupational Outlook Handbook* 2001, <http://stats.bls.gov/oco/ocos110.htm>).

Three colleges enrolled a total of 66 students in the Business Systems Analysis and Design programs during fiscal year 2000. Responses were received from 11 of 15 graduates from Lincoln Trail College and Richland Community College. Figure 3 contains overview information about the 11 fiscal year 2000 Business Systems Analysis and Design respondents. Comparable data is not available from 1995 due to the low number of graduates five years ago. Results were generally positive.



**Figure 3.** Business Systems Analysis and Design Graduates: FY 2000

Since a small number of respondents are involved in the fiscal year 2000 analysis, small numerical changes yield large percentage changes. Nine of the eleven graduates were working (N = 7) or both working and pursuing additional education in the field (N = 2). The two remaining graduates were



not actively seeking employment — one reported a health disability and the other did not furnish a reason for her decision.

Among working Business Systems Analysis graduates, five were in related positions and four were employed outside the field. Workers outside the field identified the following reasons for their behavior: could not find a job in the field of preparation (N = 2), preferred to work in another field (N = 1), and other (N = 1). Six graduates received their current positions either while enrolled in the program (N = 1) or after graduating (N = 5). Two-thirds worked in the district where they received their training and two stayed in Illinois but outside the community college district boundaries.

The seven community college Business Systems Analysis graduates working full-time in east central Illinois earned \$14.04 per hour or about \$29,203 per year. The two part-time workers earned \$7.90 per hour. Wages for community college graduates were slightly lower than anticipated but the region of the state where they were employed explains part of the difference. The 2000 Occupational Wage Survey for Illinois reports statewide salaries for workers with all levels of education ranging from \$16.87 to \$29.33 per hour with a median hourly wage of \$24.52. According to a 1999 National Association of Colleges and Employers survey, systems analysts with a bachelor's degree received beginning offers around \$41,083 annually. Nationally, a 1999 Bureau of Labor Statistics survey indicates systems analysts earned an average salary of \$52,416 per year. Employees in the computer and data processing fields generally command higher earnings than the national average for all workers based on their specialized skills. (*Horizons 2001*, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&235300&tr>).

The five graduates employed as Business Systems Analysis were satisfied ( $\bar{M} = 4.00$ ) with their positions and the two working outside their chosen field were not satisfied ( $\bar{M} = 2.25$ ) with their work situations. Overall, the small number of Business Systems Analysis graduate respondents were satisfied with the programs they completed ( $\bar{M} = 4.18$ ) and college services ( $\bar{M} = 4.65$ ). Service ratings were consistently high.

*There is great demand for individuals who can design, implement, maintain, and manage local area networks (LANs) (Occupational Outlook Handbook, 2001).*

### **Business Systems Networking and Telecommunications.**

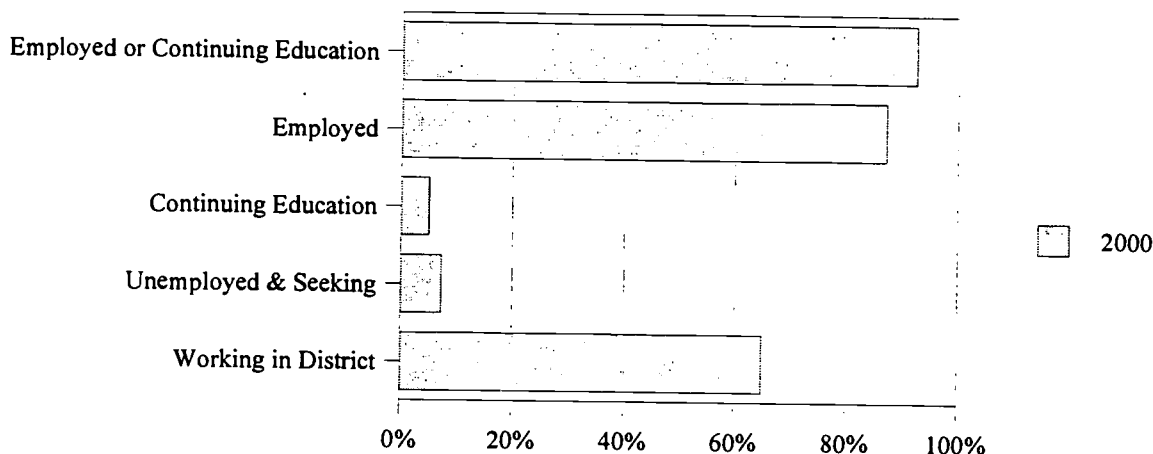
Many individuals in computer-related fields are involved in the design, testing, and evaluation of network systems such as local area networks (LANs), internet, and other data communications systems. Individuals working in business systems networking and telecommunications use computer networks to link

individuals so they can share hardware and software applications, communicate effectively, increase productivity, and strengthen data security (*Occupational Outlook Handbook 2001*, <http://stats.bls.gov/oco/ocos042.htm>).

The expanded use of internet technologies in business has resulted in a rising demand for a variety of skilled professionals who can develop and support internet, intranet, and web applications. With the growth of electronic commerce, more establishments use the internet to conduct their business online, which requires the expertise of systems networking and telecommunication professionals. Growth in these areas is expected to increase the demand for specialists knowledgeable about

network, data, and communications security. Therefore, there is great demand for individuals who can design, implement, maintain, and manage LANs. (*Occupational Outlook Handbook 2001*, <http://stats.bls.gov/oco/ocos042.htm>).

The number of community college Business Systems Networking and Telecommunications graduates in fiscal year 2000 (N = 150) is dramatically larger than in fiscal year 1995 (N = 3). Hence, information is only supplied in Figure 4 for fiscal year 2000 completers in the accompanying graphic. The small number of graduates from 1995 would tend to distort percentage comparisons.



**Figure 4.** Business Systems Networking and Telecommunications Graduates: FY 2000

Community college Business Systems Networking and Telecommunications programs enrolled 2,513 students in fiscal year 2000. Survey results were available from 150 respondents out of 243 graduates from 17 colleges. The programs which contributed the largest number of respondents included Illinois Central College (N = 29), Lincoln Land Community College (N = 25), Oakton Community College (N = 17), and Lake Land College (N = 12) contributed over 55 percent of all responses.

Better than nine out of ten Business Systems Networking and Telecommunications graduates were either employed (69.9 percent), pursuing additional education (5.1 percent) or both (25.0 percent). Seven percent of the graduates were unemployed (N = 11) with two of these individuals enrolled in additional education at the time of the survey. Five percent were not actively pursuing employment (N = 8). Reasons cited among those who did not consider themselves part of the labor force included: full-time student (N = 3); full-time homemaker (N = 2); other (N = 2); and health disability (N = 1).

Three out of four working graduates were working in computer networking and telecommunications or a related field. Thirty-three graduates were working outside of the field and cited the following reasons: could not find a job in the field (N = 17); other (N = 9); preferred to work in another field (N = 2); found better paying job in another field (N = 2); temporary job (N = 2); and took job to get preferred working hours (N = 1). Just over one-half of the graduates reported not being able to locate a job in the field.



Four out of five Business Systems Networking and Telecommunications graduates located their current employment either while enrolled (28.6 percent) or after completion (52.1 percent). Two-thirds of the graduates worked in district and 29.2 percent were employed in Illinois but outside the college district.

Community college graduates earned competitive wages. Community college Business Systems Networking and Telecommunications graduates averaged \$16.15 per hour or approximately \$33,592 on an annual basis. The fifteen graduates employed part-time earned \$11.15 per hour. According to the Bureau of Labor Statistics 1999 National Occupational Employment and Wage Estimates for Network and Computer Systems Administrators hourly wage ranged from \$14.73 per hour to \$34.71 an hour with a median hourly wage of \$22.98. Annual wages were estimated at between \$30,650 to \$72,200 with a median of \$47,790. The national data include all levels of preparation. (<http://stats.bls.gov/oes/1999/oes151071.htm>). Earnings in business systems networking and telecommunications is dependent on education, training, and experience (*Occupational Outlook Handbook* 2001, <http://stats.bls.gov/oco/ocos042.htm>).

Business Systems Networking and Telecommunications graduates working in the field ( $\bar{M} = 4.21$ ) were more satisfied with their positions than those employed outside the field ( $\bar{M} = 3.03$ ) who were in the neutral range. Business Systems Networking and Telecommunications graduates were below average in their overall assessments of the program they completed ( $\bar{M} = 3.82$ ). Areas graduates rated lowest included labor market information ( $\bar{M} = 3.38$ ) and job preparation ( $\bar{M} = 3.42$ ). Core components of the program were rated higher: course content ( $\bar{M} = 4.09$ ); equipment/facilities/materials ( $\bar{M} = 4.05$ ) and lecture/lab experiences ( $\bar{M} = 4.01$ ). Ratings of college services were also somewhat below average ( $\bar{M} = 3.89$ ) with career planning ( $\bar{M} = 3.29$ ) the lowest rated service and library/audio-visual ( $\bar{M} = 4.27$ ) rated highest.

**Business Systems Networking and Telecommunications graduates' elevated unemployment rates, heightened incidence of individuals working outside the field — particularly those unable to find jobs in the field and concerns by graduates about labor market information, job preparation, and career planning warrant further investigation at the local level.**

*Nationally and in Illinois, employment of computer operators is expected to decline sharply through the year 2008. Experienced computer operators are expected to compete for the small number of openings that will occur each year to replace workers who transfer to other occupations or leave the labor force (Horizons, 2001).*

#### **Business Computer Facilities Operator.**

Computer operators are responsible for the operation of the computer hardware systems found in large data centers, such as those in industry and large corporations. Computer hardware systems consist of the computer itself and peripheral equipment such as printers and disk drives. The operator enters data and runs programs according to a pre-established schedule, oversees the processing and responds

to error messages as they occur, and retrieves the program output. Additionally, operators make sure that equipment is properly maintained to reduce. Operators maintain log books listing events (such as machine malfunctions) that occur during their shift, so that management and operators on later shifts will be informed (*Occupational Outlook Handbook* 2001, <http://stats.bls.gov/oco/ocos128.htm>).

Formal computer-related training, such as through a community college or technical school is recommended. Workers usually receive on-the-job training in order to become familiar with the employer's equipment and routines. However, previous work experience is the key to obtaining an operator job in many large establishments (*Occupational Outlook Handbook* 2001, <http://stats.bls.gov/oco/ocos128.htm>.)

"Peripheral equipment operators" is one of 25 occupations expected to suffer the greatest decline in employment. Nationally and in Illinois, employment of computer operators is expected to decline sharply through the year 2008. Experienced computer operators are expected to compete for the small number of openings that will occur each year to replace workers who transfer to other occupations or leave the labor force. Decrease in the employment of computer operators is due to advances in technology that have reduced both the size and the cost of computer equipment, while increasing the capacity for data storage and processing automation. The improvements in technology have caused an expansion in the use of sophisticated computer hardware and software in practically every industry. Expansion in the use of software that automates computer operations gives companies the option of making systems user-friendly, greatly reducing the need for operators. (*Horizons* 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&235600&tr>; *Occupational Outlook Handbook* 2001, <http://stats.bls.gov/oco/ocos128.htm>).

In fiscal year 2000, there were 248 students enrolled in Business Computer Facilities Operator programs in the community college system. Six colleges each received responses from a small number of graduates. Statewide 14 of 19 graduates responded to the survey with Danville Area Community College (N = 5) and Triton College (N = 3) providing the most responses. Over three-quarters of the computer operator graduates were either employed (N = 7), in school (N = 1), or both (N = 3). All four graduates pursuing additional education were enrolled in information technology related programs.

Three graduates were unemployed and one of them was enrolled in additional education when surveyed. One graduate was not actively seeking employment due to family responsibilities.

Among working graduates, six of ten were working in the field, and all six of them had full-time positions. The four individuals working outside the area each cited different reasons: could not find a job in the field; found a better paying job in another field; temporary job and other. Nearly two-thirds of the graduates started their current jobs while enrolled and one-quarter began their latest job after graduating. The majority were working in the district where they graduated (N = 6), two were working in Illinois but outside the district and two were employed out of state.

Earnings for community college Computer Operator completers were relatively low. Computer Operator graduates working full-time were among the lowest paid graduates in this year's study at \$8.11 per hour \$16, 869 a year. According to the 2000 Occupational Wage Survey for Illinois, statewide salaries ranged from \$8.76 to \$14.73 per hour with a median hourly wage of \$11.78. According to Robert Half International (2001), the average starting salaries for console operators ranged from \$26,000 to \$35,500 in 1999. Generally, salaries are higher in large organizations than in small ones (*Occupational Outlook Handbook* 2001, <http://stats.bls.gov/oco/ocos128.htm>.)

Although there were few respondents, Computer Operator graduates were generally negative about their jobs. The five working in the field rated job satisfaction low ( $\bar{M} = 2.40$ ) and three of them were very dissatisfied with their jobs. The four individuals working outside the field were dissatisfied with their jobs ( $\bar{M} = 1.25$ ). Overall, graduates had much higher levels of satisfaction with the programs they completed ( $\bar{M} = 3.76$ ) and college services ( $\bar{M} = 4.02$ ). The lowest rated program component was job preparation ( $\bar{M} = 3.23$ ) and the highest rated component was the lecture/lab experience ( $\bar{M} = 4.38$ ) provided. Among services, tutoring ( $\bar{M} = 3.33$ ) and financial aid ( $\bar{M} = 3.88$ ) were rated low and transfer planning ( $\bar{M} = 4.75$ ) was rated the highest.

The number of Business Computer Facilities Operators respondents in fiscal year 2000 ( $N = 14$ ) was less than fiscal year 1995 ( $N = 22$ ). Figure 5 illustrates that combined rates of employment, continuing education, or both were comparable. The more recent graduates had more individuals employed than the fiscal year 1995 completers (71.4 percent for 2000 versus 61.9 percent for 1995). Conversely, fiscal year 1995 graduates had more individuals pursuing additional education compared to fiscal year 2000 completers (25.0 percent for 1995 versus 9.1 percent for 2000). Although the programs are small, unemployment was high for both sets of graduates (23.8 percent/5 graduates for 1995 graduates compared to 21.4 percent/3 graduates for fiscal year 2000). Graduates from both years had similar levels of completers working in the community college district where they graduates.

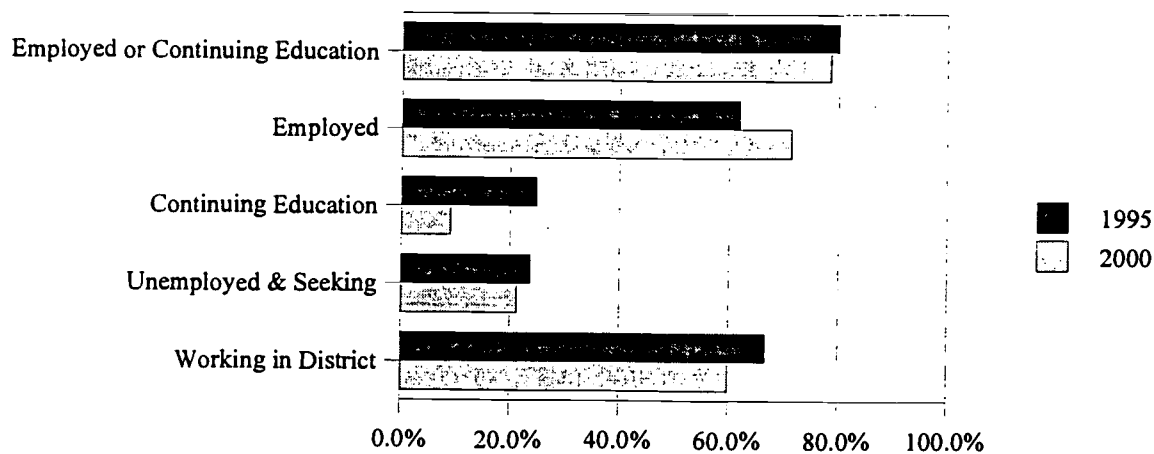


Figure 5. Business Computer Facilities Operator Graduates: FY 1995 & FY 2000

The small Computer Operator programs across the system warrant further investigation to determine if they are nearing the end of their life cycles. The profession appears to be disappearing as information technology evolves. Graduates were dissatisfied with their employment and the pay received by completers was low.

*Overall, employment of engineering technicians is expected to increase about as fast as the average for all occupations through 2008 (Horizons, 2001).*

**Electrical and Electronic Engineering-Related Technology.** Nationwide, engineering technicians held about 771,000 jobs (1998). About 335,000 of these were electrical and electronics engineering technicians. About 30 percent of all engineering technicians worked in durable goods

manufacturing, mainly in the electrical and electronic machinery and equipment, industrial machinery and equipment, instruments and related products, and transportation industries. Another 30 percent worked in service industries, mostly in engineering or business services companies that do engineering work on contract for government, manufacturing, or other organizations. Overall, employment of engineering technicians is expected to increase about as fast as the average for all occupations (*Outlook Handbook 2001*, <http://stats.bls.gov/oco/ocos112.htm>).

Computer Engineering Technology/Technician was excluded from the analysis because of the small size of the program.

The two community college Electrical and Electronic Engineering-related Technology programs included in this report are:

<u>Program Area</u>	<u>CIP Code</u>
Electrical, Electronics and Communication Engineering Technology/Technician	150303
Telecommunications Electronics Technology	150310

*Employment for engineering technicians, in the State of Illinois and nationwide, is expected to increase about as fast as the average for all occupations through 2008. Increasing demand for more sophistication in electrical and electronic products and their growing use in manufacturing production will contribute to the need for Electrical/Electronic Technicians (Horizons, 2001).*

#### **Electrical, Electronic, and Communications Engineering Technology/Technician.**

Electrical, Electronic, and Communication Engineering Technicians use engineer plans to design and develop equipment and machinery. They may work in research, development, quality control, design, or production. Engineering Technicians use the principles and theories of science, engineering, and mathematics to solve technical problems in research and development, manufacturing, sales, construction, inspection, and maintenance.

Their work is more limited in scope and more practically oriented than that of scientists and engineers. Many Engineering Technicians assist engineers and scientists, especially in research and development. Others work in manufacturing — assisting in product design, development, and production. In quality control, they may inspect products and processes, conduct tests, or collect data (*Horizons 2001*, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&245100&tr>; *Occupational Outlook Handbook 2001*, <http://stats.bls.gov/oco/ocos112.htm>).

Employment for engineering technicians, in the state of Illinois and nationwide, is expected to increase about as fast as the average for all occupations through 2008. In general, the demand for engineering technicians will vary with specialty. Increasing demand for more sophistication in electrical and electronic products and their growing use in manufacturing production will contribute to the need for electrical and electronic technicians, the largest specialty. According to the Illinois Department of Employment Security, the short-term forecast for “engineering technicians” through

the year 2001 is favorable (*Horizons 2001*, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&245100&tr>).

Electrical, Electronic, and Communications Engineering Technology is a relatively large program across the community college system. The response rate for Electrical, Electronic, and Communications Engineering Technology graduates was 58.3 percent (N = 105 of 180). Twenty-eight colleges reported on the outcomes of their graduates with William Rainey Harper College having the most responses (N = 15). Of the responding graduates, 25.2 percent were employed and pursuing additional education. Slightly more than 60 percent were exclusively employed. Just over one out of ten graduates was pursuing additional education but not working. The unemployment rate of 5.8 percent was less than the average for all community college graduates in this report (6.7 percent).

Seven out of ten employed Electrical, Electronic, and Communications Engineering Technology graduates were working in a related field. Electrical, electronic, and communications engineering technology completers employed in a related position were generally satisfied with their employment ( $\bar{M} = 4.25$  on a 5.00 scale). The 27 graduates working outside of the field gave the following reasons: found better paying job in another field (N = 9), could not find job in field of preparation (N = 6), other (N = 4), temporary job while in transition (N = 2), preferred not to move to new locality (N = 2), took a job in order to get preferred working hours (N = 2), and preferred to work in another field (N = 1).

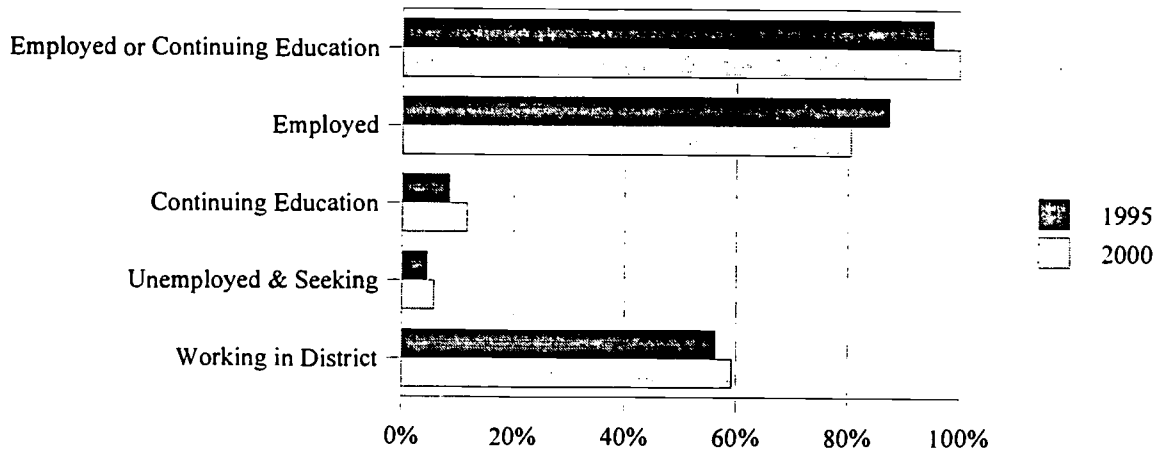
Approximately 78 percent of Electrical, Electronic, and Communications Engineering Technology graduates located their current positions either while enrolled or after completing their program. Just over 59 percent of the graduates from this program remained in the district where they received their training to find employment. Less than 35 percent were working outside of the district they were trained, but still in Illinois. Just over 6 percent were working outside of Illinois.

Just over 95 percent of the working graduates were employed in full-time positions. The average wage for full-time Electrical, Electronic, and Communications Engineering Technology graduates from community colleges was \$18.79 per hour or approximately \$39,083 annually. Electrical, Electronic, and Communications Engineering Technology graduates working part-time earned \$7.75 per hour or approximately \$16,120 annually. Nationwide, in 1999, average salary for engineering technicians was around \$34,424/year, according to the Bureau of Labor Statistics. (*Horizons 2001*, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&245100&tr>). According to a 2000 study by the Illinois Department of Employment Security, the median wage was \$16.80/hour for electrical/electronic engineering technicians. Wages for entry-level electrical/electronic engineering technicians was \$11.31/hour compared to \$21.22 for experienced electrical/electronic engineering technicians (*Illinois Department of Employment Security 2000*, <http://www.ides.state.il.us>).

Overall, respondents were generally satisfied with the components in their major ( $\bar{M} = 4.17$ ) and were rated at about the state average for all programs ( $\bar{M} = 4.18$ ). Course content ( $\bar{M} = 4.45$ ), lecture/lab experience ( $\bar{M} = 4.34$ ), and preparation for further education ( $\bar{M} = 4.30$ ) were all rated as very satisfactory. Of all of the components, labor market employment information was rated the lowest ( $\bar{M} = 3.68$ ).



Electrical, Electronic, and Communications Engineering Technology graduates satisfaction with college services ( $\bar{M} = 4.10$ ) was the same as the state average for all programs ( $\bar{M} = 4.10$ ). Highly rated services included financial aid ( $\bar{M} = 4.46$ ), library audio/visual ( $\bar{M} = 4.41$ ), and tutoring ( $\bar{M} = 4.14$ ). Career planning was rated the lowest by Electrical, Electronic, and Communications Engineering Technology graduates ( $\bar{M} = 3.76$ ) but still fell within the satisfied range.



**Figure 6.** Electrical, Electronic, and Communication Engineering Technology: FY 1995 & 2000

Comparisons between 2000 Electrical, Electronic, and Communications Engineering Technology graduates and 1995 graduates show similar outcomes for graduates. As illustrated in Figure 6, graduates from 2000 demonstrated a slightly higher unemployment rate (4.6 percent for 1995 versus 5.8 percent for 2000). Additionally, the 1995 graduates had a slight edge on rate of exclusive employment (87.4 percent for 1995 versus 80.6 percent for 2000). However, the recent graduates were more likely to be employed, pursuing additional information or both (100 percent versus 95.3 percent). For both recent and 1995 completers, the rate of in-district employment was similar (59.3 percent for 2000 and 56.3 percent for 1995).

*Although the need for installation work will grow as companies want to upgrade their telecommunications networks, the need for maintenance work should decline because of the increase of reliable self-monitoring and self-diagnosing equipment (Occupational Outlook Handbook, 2001).*

**Telecommunications Electronics Technology.**

With the increasing reliance on telecommunication system for voice, data, and video, keeping these systems up and running is an ever-larger task. Typical duties of a telephone electronics technician include installing, relocating, and removing telephones and Private Branch (PBX) systems in homes and offices, and connecting the equipment to outside service wires on buildings or poles. PBX installers set up private branch exchange switchboards. This equipment relays incoming, outgoing, and interoffice calls for a single location or organization. They also install equipment such as power systems, alarms, and telephone sets. New switches and switchboards are computerized; therefore, workers install software or may program the equipment to provide specific features. Electronic switches route telephone signals to their destinations. Switchboards direct telephone calls within a single location or organization. Newer telecommunications equipment is

incoming, outgoing, and interoffice calls for a single location or organization. They also install equipment such as power systems, alarms, and telephone sets. New switches and switchboards are computerized; therefore, workers install software or may program the equipment to provide specific features. Electronic switches route telephone signals to their destinations. Switchboards direct telephone calls within a single location or organization. Newer telecommunications equipment is

computerized and can communicate a variety of information, including data, graphics, and video (*Occupational Outlook Handbook* 2001, <http://stats.bls.gov/oco/ocos188.htm>).

Most employers prefer applicants with postsecondary training in electronics. Familiarity with computers is also important. Training sources include two-year and four-year college programs in electronics or communications. Trade schools, and training provided by equipment and software manufacturers is also accepted by employers (*Occupational Outlook Handbook* 2001, <http://stats.bls.gov/oco/ocos188.htm>).

Nationwide, employment of Telecommunications Equipment Mechanics, Installers, and Repairers is expected to grow about as fast as the average for all occupations through 2008. The increasing demand for sophisticated telecommunications equipment will drive growth in this occupation. Although the need for installation work will grow as companies want to upgrade their telecommunications networks, the need for maintenance work should decline because of the increase of reliable self-monitoring and self-diagnosing equipment. Opportunities should be best for applicants with both electronics training and computer skills (*Occupational Outlook Handbook* 2001, <http://stats.bls.gov/oco/ocos188.htm>).

Telecommunications Electronics Technology is a small-sized program within the community college system. Only two colleges had graduates. Eighteen Telecommunications Electronics Technology graduates responded to the survey for a response rate of 66.7 percent. Lincoln Trail College accounted for 17 of the 18 graduate respondents.

The overall outcome for Telecommunications Electronics Technology graduates was positive. All graduates surveyed were exclusively employed. No Telecommunications Electronics Technology graduates were unemployed. Eight out of nine employed graduates were in positions related to the field. Individuals employed in positions related to their training were very satisfied with their jobs ( $M = 4.44$  on a 5.00 scale). The remaining two individuals cited the following as reasons for working outside the field: preferred to not to move to new locality ( $N = 1$ ) and temporary job while in transition ( $N = 1$ ).

Approximately 83.3 percent of the Telecommunications Electronics Technology graduates located their current positions after completing the program. The remaining three individuals began their positions during program enrollment. A high percentage of graduates worked outside of Illinois (44.4 percent). The close proximity of Lincoln Trail College to the Illinois-Indiana border may partially account for the high rate of graduates working out-of-state. Nearly four out of ten graduates worked in Illinois but outside of the district where they received their training. Less than 17 percent of Telecommunications Electronics Technology graduates worked in the community college district where they received their training, well below the average for all programs (63.7 percent).

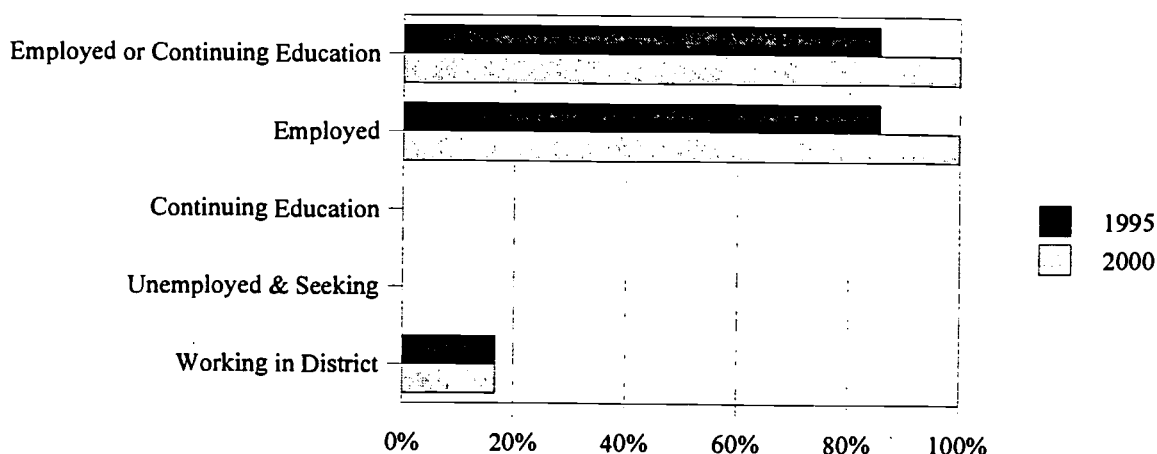
All working graduates were employed in full-time positions. The average wage for full-time Telecommunications Electronics Technology workers who graduated from community colleges was \$14.69 per hour or the equivalent of approximately \$30,555 annually. According to a 2000 study by the Illinois Department of Employment Security, central office and PBX installers and repairers had a median wage of \$29.09/hour. Wages for entry-level central office and PBX installers and repairers was \$15.15/hour compared to \$21.64 for experienced central office and PBX installers and



repairers (*Illinois Department of Employment Security 2000*, <http://www.ides.state.il.us>). Earnings for community college Telecommunications Electronics Technology graduates were on the lower end of the range for the field but still substantial.

Overall, Telecommunications Electronics Technology graduates were satisfied with the components in their major ( $\bar{M} = 4.40$ ). In fact, Telecommunications Electronics Technology graduates rated all of the components of the programs they completed above the statewide average except course content ( $\bar{M} = 4.33$ ), which still fell in the satisfied range. Across program areas, graduates were among the most satisfied with lecture/lab experience ( $\bar{M} = 4.67$ ) and labor market/employment information ( $\bar{M} = 4.44$ ).

Overall, Telecommunications Electronics Technology graduates were also satisfied with college services ( $\bar{M} = 4.24$ ). Highly rated services included the quality of the tutoring ( $\bar{M} = 5.00$ ), career planning ( $\bar{M} = 4.73$ ), and counseling ( $\bar{M} = 4.57$ ). Transfer was rated lowest by Telecommunications Electronics Technology graduates ( $\bar{M} = 3.17$ ), well below the statewide average ( $\bar{M} = 3.84$ ).



**Figure 7.** Telecommunications Electronics Technology Graduates: FY 1995 & 2000

Comparisons between 2000 Telecommunications Electronics Technology Graduates with 1995 completers show positive outcomes for graduates from both years with more recent completers exhibiting slightly better results. As illustrated in Figure 7, graduates from fiscal year 2000 had higher rates of employment and/or continuing education and a larger portion exclusively employed. Completers from 1995 and the most recent graduates had identical low rates for those individuals working in the district where they received their education (16.7 percent).

*Nationally, employment of law enforcement officers is expected to increase faster than average for all occupations through 2008 while in Illinois, average growth is expected. However, "police patrol officers" is one of the 50 occupations expected to provide the most job openings each year. Private security and investigating firms should provide additional employment opportunities. (Horizons, 2001)*

**Law Enforcement.** Law enforcement officers protect life and property, prevent crimes, investigate complaints and crimes, apprehend and arrest violators and assist in their prosecution. They are responsible for enforcing laws and maintaining order. Additional duties include the preparing and submitting of reports of their activities and testifying in court. Studies show that about 80 percent of a police officer's time is spent providing a wide variety of community services and peacekeeping functions such as

giving directions, handling traffic accidents, and resolving family disputes. Less than 20 percent of the time is spent on crime-related activities (*Horizons* 2001, <http://www.ioicc.state.il.us/scripts/ilcis/info.exe&occ&941400&tr>).

Nationwide, police and detectives held around 727,000 jobs in 1998. About 81 percent of police detectives and investigators were employed by local governments, primarily in cities with more than 25,000 people (*Occupational Outlook Handbook* 2001, <http://stats.bls.gov/oco/ocos160.htm>). In Illinois, law enforcement is a large occupation. There are about 36,370 law enforcement officers in Illinois not including people in the military. They are employed all around the state. Approximate regional employment is: Northeastern Illinois—24,750; Northwestern Illinois—3,870; East Central Illinois—2,200; West Central Illinois—2,440; Southwestern Illinois—1,560; and Southeastern Illinois—1,550 (*Horizons* 2001, <http://www.ioicc.state.il.us/scripts/ilcis/info.exe&occ&941400&tr>).

Civil service regulations govern the appointment of police and detectives in practically every State, large municipalities, and special police agencies, as well as in many smaller ones. Law enforcement candidates must be U.S. citizens, usually at least 20 years of age, and must meet rigorous background checks, physical testing and possess interpersonal skills. Physical examinations for entrance into law enforcement often include tests of vision, hearing, strength, and agility. Eligibility for appointment usually depends of performance in competitive written examinations and previous education and experience. In larger departments, where the majority of law enforcement jobs are found, applicants usually must have at least a high school education. Federal and State agencies typically require a college degree (*Occupational Outlook Handbook* 2001, <http://stats.bls.gov/oco/ocos160.htm>).

Nationally, employment of law enforcement officers is expected to increase faster than average for all occupations through 2008 while in Illinois, average growth is expected. However, "police patrol officers" is one of the 50 occupations expected to provide the most job openings each year. Growth in related areas such as private security and investigating firms should provide additional opportunities. According to the Illinois Department of Employment Security, the short-term forecast for "police patrol officers" is very favorable (*Horizons* 2001, <http://www.ioicc.state.il.us/scripts/ilcis/info.exe&occ&941400&tr>).

Law Enforcement training is a substantial program in the Illinois Community College System. Thirty-seven of the 39 colleges that had Law Enforcement graduates received responses to the

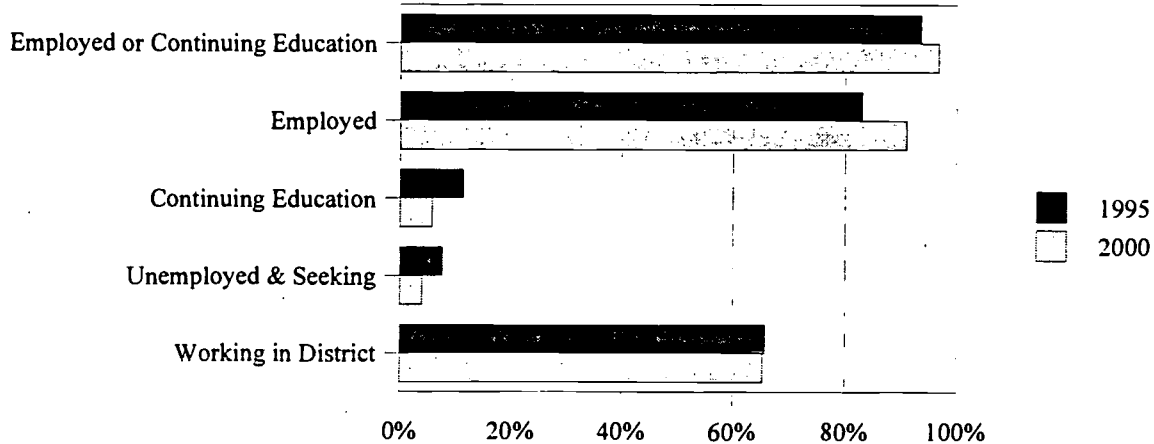
survey. The colleges with the most responses were Southwestern Illinois College (N = 56), Moraine Valley Community College (N = 23), College of DuPage (N = 16) and John A. Logan College (N = 19). There were a total of 315 responses to the survey for a response rate of 58 percent. Almost 97 percent of Law Enforcement graduates were employed, continuing education or both. Nearly two-out-of-three were exclusively employed, while 28.5 percent were both working and pursuing additional education. Law Enforcement graduates had a relatively low unemployment rate of 4.0 percent.

Slightly over two-thirds of working Law Enforcement graduates were employed in a related field. Those who were employed in a related field reported high levels of satisfaction with their job. Their job satisfaction rating of 4.44 was among the highest across all programs. There were 89 completers who were not working in a related field. Slightly over a third of these indicated that they were in transition and about one out of four did not give a reason as to why they were not working in a related field.

Among employed Law Enforcement graduates, 88.5 percent were working full-time. Full-time graduates were earning \$15.67/hour, or slightly more than three times minimum wage. This equates to an annual wage for full-time workers of approximately \$32,594. Part-time graduates earned \$8.21 per hour, or a little over one-and-one-half times the minimum wage. The 1999 Bureau of Labor Statistics survey states the national average for supervisors of police officers and detectives was about \$42,484 per year. Police officers and detectives earned an average wage of about \$39,052 per year. Sheriffs and bailiffs earned average salaries around \$32,656 per year. The Illinois Department of Employment Security's 2000 Wage Data reports median salaries of correction officers and jailers at approximately \$33,612 per year, for police officers about \$44,054 per year, and for sheriffs approximately \$29,723 per year.

Overall, Law Enforcement graduates were very satisfied with the programs they completed ( $\bar{M} = 4.41$ ). In comparison to other graduates, they were especially satisfied with job preparation ( $\bar{M} = 4.32$ ) aspects of the program. High ratings were also given to key programmatic components including course content ( $\bar{M} = 4.61$ ) and lecture/lab experience ( $\bar{M} = 4.50$ ). Similarly, Law Enforcement graduates seemed satisfied with all the services provided. Their ratings for each service were slightly above those of other graduates, although they were especially satisfied with academic advising ( $\bar{M} = 4.25$ ) and library/audio visual ( $\bar{M} = 4.56$ ) services.

Figure 8 contains information about Law Enforcement graduates from fiscal year 2000 and fiscal year 1995. Results from both years were good with recent graduates exhibiting more positive outcomes compared to the 1995 completers. Law Enforcement graduates from 2000 were more likely than 1995 graduates to be employed (91 percent for 2000 and 83 percent for 1995) and employed or pursuing education or both (97 percent for 2000 and 94 percent for 1995). Graduates from 2000 also had lower unemployment (4 percent) than 1995 completers (8 percent). Graduates from 2000 and 1995 were equally likely to be employed in the district where they received their training (66 percent).



**Figure 8.** Law Enforcement/Police Science: FY 1995 & 2000

*In Illinois and nationally, employment of electronics technicians is expected to increase as fast as the average for all occupations through 2008 (Horizons, 2001).*

**Electrical and Electronics Equipment Installers and Repairers.**

Graduates from these programs may work in research, development, quality control, design, production or sales. Electrical and electronics technicians use information from blueprints and detailed drawings to test, adjust, and

inspect products. They ensure that set standards and specifications have been met. Some electronics technicians help in the development of electronic products while others are responsible for repairing and servicing defective equipment (*Horizons 2001*, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&566800&tr>).

The three community college Electrical and Electronic Equipment Installers and Repairer programs included in the report are:

<u>Program Area</u>	<u>CIP Code</u>
Communication Systems Installer and Repairer	470103
Computer Installer and Repairer	470104
Industrial Electronics Installer and Repairer	470105

General Electrical and Electronics Equipment Installer and Repairer and Major Appliance Installer and Repairer are excluded from this report due to the low number of graduates in these programs.

*In Illinois, employment of telephone installers and repairers is expected to decrease sharply through 2008. Technological advancements have eliminated the need for many of the duties performed by installers. (Horizons, 2001)*

**Communication Systems Installer and Repairer.**

Telephones and radios depend on a variety of equipment to transmit communication signals. Typical duties of a telephone installer is installing, relocating, and removing telephones and Private Branch (PBX) systems in homes and offices, and connecting the equipment to outside service wires on buildings or poles. Electronic switches route telephone signals to their

destinations. Switchboards direct telephone calls within a single location or organization. Newer telecommunications equipment is computerized and can communicate a variety of information, including data, graphics, and video. Radio mechanics install and maintain radio transmitting and receiving equipment (Horizons 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&316600&tr>, Occupational Outlook Handbook 2001, <http://stats.bls.gov/oco/ocos188.htm> ).

In order to obtain work as communication systems installer, such as a telephone installer, a high school diploma is required by most employers. Employers prefer individuals who have developed these skills in another job, in the military or through associate degree and vocational school programs in telecommunications technology or in electronics. Some companies will promote from within and provide company training if qualified applicants are not available. A valid driver's license, a good driving record, and being in good physical condition are essential to gaining access to positions in these fields. (Horizons 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&316600&tr> ).

According to the *Occupational Outlook Handbook* (2001), employment of telecommunications installers is expected to grow about as fast as the average for all occupations through 2008. However, in the case of telephone installers, there is a surplus. In Illinois, employment of telephone installers and repairers is expected to decrease sharply through 2008. Technological advancements have eliminated the need for many of the duties performed by installers. Station installers and repairers is one of 25 occupations expected to suffer the greatest decline in employment. According to the Illinois Department of Employment of Security, the short-term forecast for this occupation through the year 2001 is very unfavorable (Horizons 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&316600&tr>).

Eighteen of the 24 Communications Systems Installer and Repairer graduates responded to the survey for a response rate of 75 percent. Only three community colleges had responses from graduates in this program with the most number of responses for Lincoln Trail College(N = 13). A little over 94 percent of were employed, continuing education or both. Under half were exclusively employed, while 5.9 percent were not employed, but pursuing additional education. Of those employed, 93.8 percent were working in a related field. Communications Systems Installer and Repairer graduates had no unemployment.

Approximately 75 percent of respondents began their position after program completion (much higher than the overall average of 41.1 percent). Only 18 percent had a position before program

entrance and 6.3 percent began their position during program enrollment (overall averages were 25.4 percent and 33.6 percent, respectively).

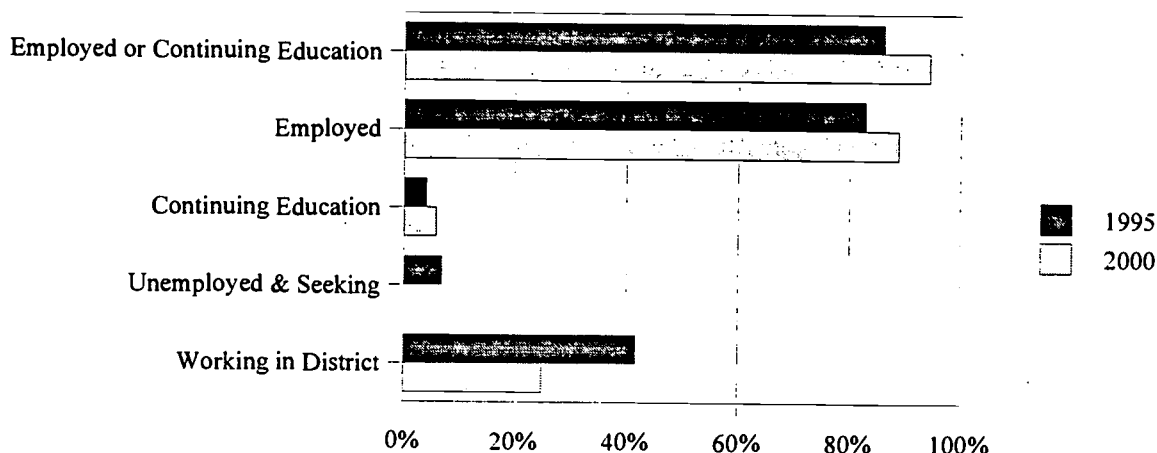
All of the Communications Systems Installer and Repairer graduates who were working were employed full-time. Full-time graduates were earning \$14.27 an hour, or more than two-and-one-half times the minimum wage. In 1998, median hourly earnings of central office and PBX installers were \$21.00 while for radio mechanics it was \$14.71. For station installer, in 1998, median hourly earnings were \$19.06. Central office installers, central office technicians, PBX installers, and telephone installers and repairers represented by the Communications Workers of America earned between \$283 and \$996 a week in 1998 (Occupational Outlook Handbook 2001, <http://stats.bls.gov/oco/ocos188.htm>). The Illinois Department of Employment Security's 2000 Wage Data reports median earnings for Electrical and Powerline Installers and Repairers at about \$22.37/hour. Community college graduates' wages were competitive considering that most completers started new jobs after graduating.

Overall, Communications Systems Installer and Repairer graduates were satisfied with their program components ( $\bar{M} = 4.28$ ). In comparison to other graduates, they were especially satisfied with the component of labor market employment ( $\bar{M} = 4.56$ ). Relatively high ratings were also given to lecture/lab experience ( $\bar{M} = 4.50$ ) and job preparation ( $\bar{M} = 4.11$ ).

Generally, Communications Systems Installer and Repairer graduates were not as satisfied with the services that were provided by their program. The services receiving low ratings by these graduates were financial aid ( $\bar{M} = 3.90$ ), transfer planning ( $\bar{M} = 3.17$ ), counseling ( $\bar{M} = 3.25$ ) and student activity ( $\bar{M} = 3.60$ ). However, these completers were satisfied with career planning ( $\bar{M} = 4.27$ ) and tutoring ( $\bar{M} = 4.60$ ).

Figure 9 contains information about Communications Systems Installer and Repairer graduates from fiscal year 2000 and fiscal year 1995. Positive outcomes are displayed for both timeframes, but more so for the recent graduates. Communications Systems Installer and Repairer graduates from 2000 were more likely than 1995 graduates to be employed or pursuing education or both (94 percent for 2000 and 86 percent for 1995). Graduates from 2000 had a higher rate of those employed (89 percent) than completers from 1995 (83 percent). Graduates from 1995 were more likely to be employed in the district where they received their training (42 percent). The more recent graduates had an unemployment rate of zero, while the graduates in the 1995 time frame had an unemployment rate of 7 percent.





**Figure 9.** Communications Systems Installer and Repairer Graduates: FY 1995 & 2000

*Nationally, employment of computer repairers is expected to grow faster than the average for all occupations through 2008. Growth will be driven by the increasing dependence of business and residential customers on computers and other sophisticated office machines (Horizons, 2001).*

**Computer Installer and Repairer.**

Computer installers and repairers, or computer maintenance technicians, maintain and repair computers and computer-related equipment. Additionally, they may also help install the equipment. When computers break down, technicians determine the cause and replace or repair faulty mechanical or electronic parts. Most of the technician's work is on equipment such as terminals and

card readers. Less time is spent on the computer itself. Computer maintenance technicians often answer customers' questions and give technical advice on ways to keep equipment in good operating condition. Some specialize in maintaining certain types of equipment while others specialize in doing particular types of repair such as correcting problems caused by errors in the computer's internal programming (Horizons 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&316500&tr>).

Data processing equipment repairers is one of the 50 fastest growing occupations in Illinois. As the demand for computer equipment increases, in both offices and homes, so will the demand for computer repair persons. Statewide, about 2,320 people are employed in this small occupation in Illinois not including the military. Approximate regional employment is: Northeastern Illinois — 1,870; Northwestern Illinois — 260; East Central Illinois — 70; West Central Illinois — 70; Southwestern Illinois — 30; and Southeastern Illinois — 20 (Horizons 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&316500&tr>). Nationally, employment of computer repairers is expected to grow faster than the average for all occupations through 2008. Growth will be driven by the increasing dependence of business and residential customers on computers and other sophisticated office machines. Many new jobs for computer repairers will be created because of the need to maintain the computer equipment (Occupational Outlook Handbook 2001, <http://stats.bls.gov/oco/ocos186.htm>).



Forty Computer Installer and Repairer graduates from the community college system responded to the survey for a response rate of 59.7 percent. Twelve community colleges provided information about Computer Installer and Repairer graduates. Almost one-half of the respondents came from two colleges, the College of Lake County (N = 10) and Triton College (N = 9). Nearly 90 percent of these graduates were employed, pursuing more education or both. Almost two out of three were exclusively employed. Computer Installer and Repairer graduates had a moderate unemployment rate of 7.7 percent.

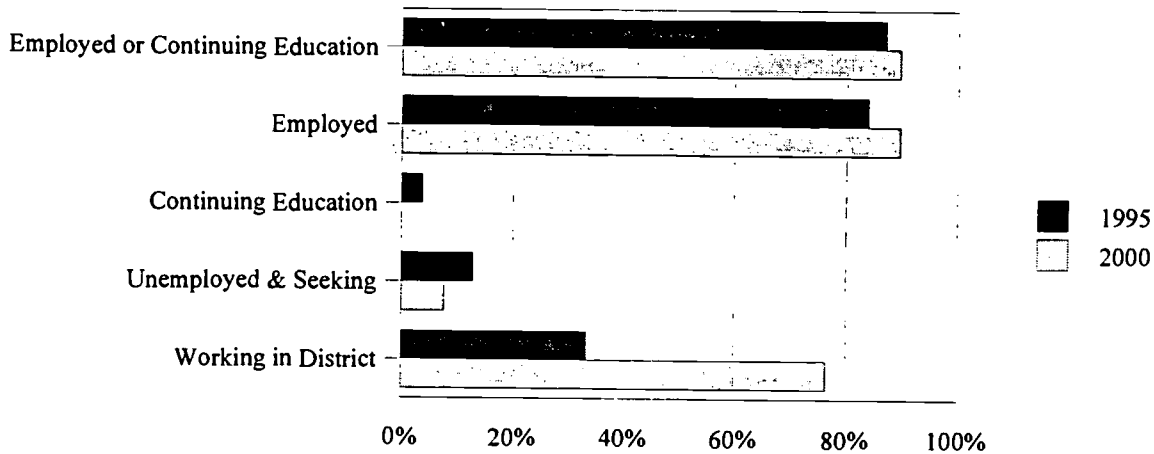
A relatively low percentage (60.0) of computer installer and repairer completers who were working, were employed in a related field. Of those not working in a related field, over one-third indicated that they could not find employment in their field of preparation. One in five said that they were in transition.

About 77 percent of the Computer Installer and Repairer graduates who were working were employed full-time. The hourly wage for these graduates was \$14.51 an hour, or about 2.8 times the minimum wage of \$5.15 per hour. Annual earnings for graduates in full-time positions was about \$30,181. Graduates working part-time earned \$8.34 an hour, or a little over one-and-one-half times the minimum wage. Wages for Computer Installers and Repairers is dependent on the worker's level of skill and employer. According to a 1999 Bureau of Labor Statistics survey, data processing equipment repairers earned average salaries around \$35,830 per year nationwide. The Illinois Department of Employment Security (2000 Wage Data) reports median salaries for Data Processing Equipment Repairers at about \$28,600 a year. Most employers require computer maintenance technicians to have one to two years of post-high school or military training in basic electronics or electrical engineering. Most employers also operate their own training programs. (*Horizons* 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&316500&tr>).

Computer Installers and Repairer graduates gave slightly below average ratings for college program components in comparison to graduates from other programs. They were most satisfied with course content ( $\bar{M} = 4.25$ ) and least satisfied with labor market employment information ( $\bar{M} = 3.70$ ), job preparation ( $\bar{M} = 3.80$ ), and equipment facilities materials ( $\bar{M} = 3.97$ ). These ratings remain in the satisfied range.

Generally, Computer Installers and Repairer graduates were less satisfied with college services than other graduates. The one service that completers seemed to be satisfied with was student activities ( $\bar{M} = 4.31$ ). Completers were least satisfied with counseling ( $\bar{M} = 3.55$ ), academic advising ( $\bar{M} = 3.63$ ), and career planning ( $\bar{M} = 3.68$ ). These ratings are still in the satisfied range.

Figure 10 seems to illustrate that the 2000 completers were slightly better off than the 1995 graduates. The 2000 graduates had a higher rate of those employed, continuing education or both (90 percent for 2000 and 87 percent for 1995). In addition, the more recent graduates were less likely to be unemployed (8 percent for 2000 and 13 percent for 1995). The more recent graduates who found employment were also much more likely to remain in the district where they received their training (77 percent for 2000 and 33 percent for 1995). The 2000 graduates showed a higher employment rate than the 1995 completers (90 percent and 84 percent, respectfully).



**Figure 10.** Computer Installer and Repairer Graduates: FY 1995 & 2000

*Employment of electronics repairers of commercial and industrial equipment is expected to grow about as fast as the average for all occupations through 2008. Improved equipment reliability should not hamper employment growth as companies will increasingly rely on preventative maintenance since any malfunction that idles commercial and industrial equipment is costly (Occupational Outlook Handbook, 2001).*

**Industrial Electronics Installer and Repairer.**

Businesses and other organizations depend on complex electronic equipment for a variety of functions. Industrial controls automatically monitor and direct production processes on the factory floor. Transmitters and antennae provide communications links for many organizations. These complex pieces of electronic equipment are installed, maintained, and repaired by electronics repairers of commercial and

industrial equipment. Many industrial repairers, also known as field technicians, travel to factories or other locations to repair equipment. These workers often have assigned areas where they perform regular preventive maintenance. When equipment breaks down, field technicians go to a customer's site to repair the equipment. Bench technicians work in repair shops located in factories and service centers. They work on components that cannot be repaired on the factory floor (*Occupational Outlook Handbook 2001*, <http://stats.bls.gov/oco/ocos184.htm>).

Many electronics repairers of commercial and industrial equipment applicants gain training through programs lasting between one and two years at vocational schools and community colleges. Entry level repairers may work closely with more experienced technicians who provide technical guidance. Nationally, electronics repairers of commercial and industrial equipment held about 72,000 jobs in 1998 (<http://stats.bls.gov/oco/ocos184.htm>).

The use of commercial and industrial electronic equipment will become more widespread, as businesses strive to lower costs by increasing automation. Improved equipment reliability should not hurt employment growth because companies will increasingly rely on repairers, because any malfunction that idles commercial and industrial equipment is costly. Therefore, employment of electronics repairers of commercial and industrial equipment is expected to grow about as fast as the

average for all occupations through 2008 (Occupational Outlook Handbook 2001, <http://stats.bls.gov/oco/ocos184.htm>).

Fifty-seven of the 101 Industrial Electronics Installer and Repairer graduates responded to the survey for a response rate of 56.4 percent. Twelve community colleges had responses from graduates in this program. The colleges with the most number of responses were, Kankakee Community College (N = 9), Richland Community College (N = 9) and Southwestern Illinois College (N = 8). Nearly 95 percent of Industrial Electronics Installer and Repairer graduates were employed, continuing education or both. Approximately two out of three were exclusively employed, while about 2 percent were not employed, but pursuing additional education. Industrial Electronics Installer and Repairer completers had an unemployment rate of 7.1 percent. Of those employed, 90.2 percent were working in a related field.

Approximately 98 percent of working graduates were employed in full-time positions. Full-time Industrial Electronics Installer and Repairer community college graduates earned \$18.43 an hour. Hence, full-time graduates earned more than three and one-half times the minimum wage of \$5.15 per hour. The one graduate working part-time earned \$10.00 an hour. National data show that 20 percent of salaried repairers was employed by the federal government. Additionally, many repairers also worked for wholesale trade companies, electrical repair shops, manufacturers of electronic components, and the telecommunications industry. Nationwide, about ten percent of electronics repairers of commercial and industrial equipment were self-employed. The median hourly earnings of electronics repairers of commercial and industrial equipment were \$17.11 in 1998 (Occupational Outlook Handbook 2001, <http://stats.bls.gov/oco/ocos184.htm>). The Illinois Department of Employment Security 2000 Wage Data show a median salary for Electronics Repairers of Commercial and Industrial Equipment at \$15.87 an hour. Community college graduates were earning competitive wages.

Industrial Electronics Installer and Repairer graduates had slightly below average ratings of college program components in comparison to graduates from other programs. They seemed most satisfied with course content ( $\bar{M} = 4.42$ ) and least satisfied with labor market employment information ( $\bar{M} = 3.45$ ). Generally, Industrial Electronics Installer and Repairer graduates were more satisfied with college services than other graduates. These completers had high levels of satisfaction with academic advising ( $\bar{M} = 4.31$ ), career planning ( $\bar{M} = 4.33$ ), financial aid ( $\bar{M} = 4.41$ ), and library audio/visual ( $\bar{M} = 4.54$ ). These graduates were least satisfied with transfer planning ( $\bar{M} = 3.36$ ).

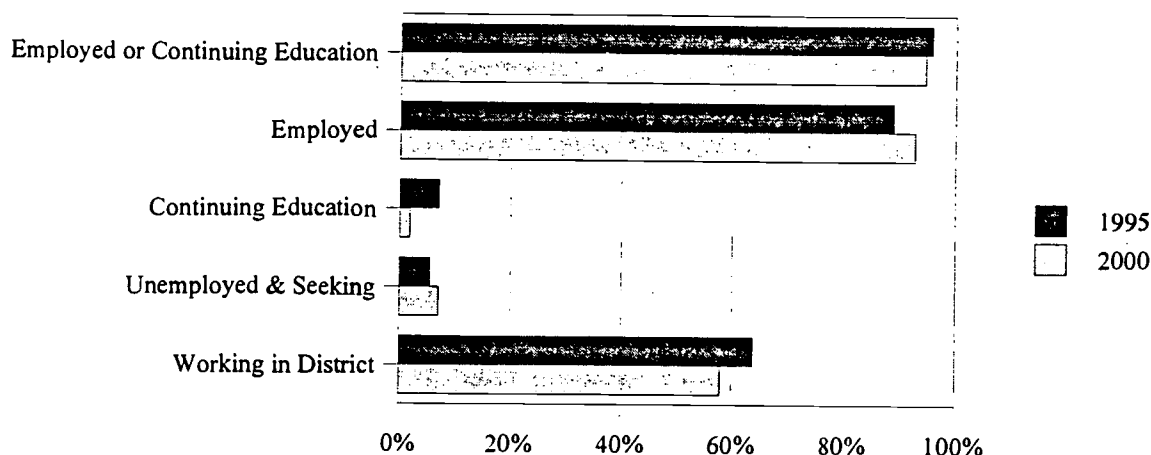


Figure 11. Industrial Electronics Installer and Repairer Graduates: FY 1995 & 2000

Comparisons between 2000 Industrial Electronics Installer and Repairer graduates with those of 1995, reveal slightly more positive outcomes for 1995 graduates than for 2000 graduates. As Figure 11 shows, 2000 graduates and 1995 graduates had virtually the same rate for those employed or continuing education or both (95 percent for 2000 and 96 percent for 1995). In terms of those employed, 1995 graduates had a rate of 89 percent with 2000 completers slightly above that at 93 percent. Graduates from 1995 had a slight edge in unemployment. The unemployment rate for 1995 graduates was 6 percent, while 2000 completers had a rate of 7 percent. Graduates from 1995 had a greater proportion of those exclusively continuing their education than 2000 completers (7 percent for 1995 and 2 percent for 2000). Graduates from 1995 also had a greater rate of workers employed in the district where they received their training than did completers for 2000 (64 percent and 58 percent, respectfully).

*Overall, employment in the health services industry is projected to increase 26 percent through 2008, compared to an average of 15 percent for all industries (Career Guide to Industries, 2001).*

#### **Health and Medical Administrative Services.**

Health services is one of the largest industries in the nation, with approximately 11.3 million jobs, including the self-employed. Nationwide, there are over 430,000 health service establishments. Health services firms employ workers in professional specialty and service

occupations in about equal numbers. Together, these two occupational groups cover nearly three out of five jobs in the industry. The next largest share of jobs is in administrative support occupations, followed by technicians and related support occupations. Executive, administrative, and managerial occupations account for 6 percent of employment. Other occupations in health services comprise only 1 percent of the total (*A Guide to Health Careers in Illinois*, 2001, <http://www.ioicc.state.il.us/HealthCareers/Intro.htm>, *Career Guide to Industries*, 2001, <http://stats.bls.gov/oco/ocos035.htm>).

Overall, employment in the health services industry is projected to increase 26 percent through 2008, compared to an average of 15 percent for all industries. Aging baby boomers and longer life spans are expected to contribute the need for more healthcare and the accompanying administrative services. Employment is expected to add about 2.8 million new jobs—14 percent of all wage and salary jobs added to the economy over the 1998-2008 period. Projected rates of employment growth for the various segments of this industry range from 8 percent in hospitals, the largest and slowest growing industry segment, to 80 percent in the much smaller home health care services. For some executive, administrative, and managerial occupations, rapid growth will be countered by restructuring to reduce administrative costs and streamline operations. The effects of office automation and other technological changes will slow employment growth in administrative support occupations, but because the employment base is large, the need for replacement workers will create substantial job openings. Slower growing service occupations will also have job openings due to replacement worker needs. (*Career Guide to Industries*, 2001, <http://stats.bls.gov/oco/ocos035.htm>).

The two community college system health and medical administrative services programs included in the current analysis are:

<u>Program Area</u>	<u>CIP Code</u>
Medical Records Technology/Technician	510707
Medical Transcription	510708

Programs in Hospital/Health Facilities Administration, Health Unit Coordinator/ Ward Clerk, and Medical Office Management (N = 8) were excluded due to the small number of respondents.

*According to the Illinois Department of Employment Security, currently the short-term forecast for medical records technicians is very favorable. Nationally and in Illinois, employment of medical record technicians is expected to grow much faster than the average for all occupations through 2008 (Horizons, 2001).*

**Medical Records Technology/Technician.** Medical record technicians maintain and release medical and statistical information regarding patients for hospitals and other healthcare facilities. Responsibilities include analysis and coding of information, as well as compiling statistics and preparing reports. When health care personnel treat a patient, they record what they observed,

and medical treatments. This record includes patient symptoms and medical history, the results of examinations, reports of x-rays and laboratory tests, diagnoses, and treatment plans. Medical records technicians organize and evaluate records for comprehensiveness and accuracy. Most technicians work in hospitals while some are employed in clinics, nursing homes, health maintenance organizations, drug companies and government agencies. (Horizons 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&143100&tr>, *Occupational Outlook Handbook* 2001, <http://stats.bls.gov/oco/ocos103.htm>).

Medical records technicians is one of Illinois' 50 fastest growing occupations. According to the Illinois Department of Employment Security, the short-term forecast for medical records technicians is very favorable. Nationally and in Illinois, employment of medical record technicians is expected to grow much faster than the average for all occupations through 2008. The demand for medical records personnel is justified by the increased use of health insurance, Medicare and Medicaid, and the growing numbers of health care facilities, and accelerated growth in the number of medical tests, treatments, and procedures. The increased need for complete, accurate, and timely data is major reason for the projected growth (Horizons 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&143100&tr>).

Currently, in this relatively small occupation, there are about 3,750 technicians employed in Illinois. Approximate regional employment is Northeastern Illinois — 2,360; Northwestern Illinois — 520; East Central Illinois — 240; West Central Illinois — 210; Southwestern Illinois — 200; and Southeastern Illinois — 220. Wages for medial record technicians vary according to locality, the size and the type of employing institution. Like with most jobs, the technician's training and experience are also important. (Horizons 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&143100&tr>).

For medical records technicians, most employers require an associate degree in medical record technology. Certification is available through the American Health Information Management



Association (AHIMA). However, not all technicians are certified. In order to qualify as a Registered Health Information Technician (RHIT), applicants must have completed an associate degree from an accredited Health Information Technology (HIT) program and pass a national examination (*Horizons* 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&143100&tr>).

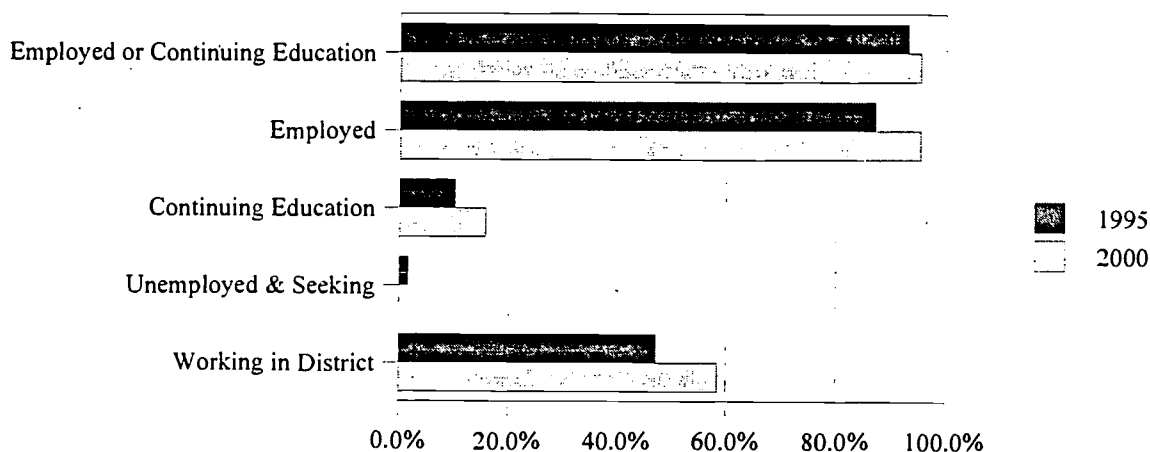
Programs preparing Medical Record Technicians enrolled 444 students in fiscal year 2000. Graduates from the following seven colleges participated in the study: Oakton Community College, Moraine Valley Community College, College of Lake County, Southwestern Illinois College, Harry S Truman College, College of DuPage, and Rend Lake College. Nearly three-quarters of the graduates responded to the survey (N = 45). Oakton Community College completers accounted for more than one-third of all respondents.

Ninety-five percent of the graduates were either employed (N = 35) or both working and pursuing additional education (N = 7). Six of the seven who were simultaneously working and in school were studying in a related field. Two graduates were not actively seeking employment and not pursuing additional education. Four out of five working Medical Record Technician program graduates were in full-time positions. Ninety-eight percent of all graduates were working in the Medical Records field. The one individual employed in another field gave no reason for her choice. Eighty-six percent of working graduates obtained their positions either while enrolled in the program or after graduating. Nearly 98 percent of the graduates worked in-district (58.5 percent) or out-of-district, but in Illinois (39.0 percent).

Earnings of community college system Medical Record Technician program graduates compared favorably to overall earnings levels in the field. Community college system graduates working full-time earned \$14.39 per hour or \$29,913 annually. College graduates working part-time had similar earnings at \$13.95 per hour. According to the *Occupational Outlook Handbook* 2001, (<http://stats.bls.gov/oco/ocos103.htm>), median annual earnings of health information technicians were \$20,590 in 1998. The middle 50 percent earned between \$16,670 and \$25,440 a year. The highest 10 percent earned more than \$31,570 a year. Median annual earnings in the industries employing the largest number of health information technicians in 1997 were as follows: Hospitals \$20,900; Nursing and personal care facilities \$20,100; Offices and clinics of medical doctors \$18,100. According to a 1997 survey by the American Health Information Management Association, the median annual salary for accredited health information technicians was \$30,500. The average annual salary for health information technicians employed by the Federal Government was \$27,500 in early 1999. Illinois Department of Employment Security Wage Data (2000) indicate the hourly wage for Medical Record Technicians in Illinois was as follows: \$6.74 per hour entry, \$9.60 per hour median, and \$13.92 per hour experienced.. According to a 1999 national survey conducted by the American Health Information Management Association, graduates of associate degree programs can earn between \$20,000 and \$30,000 per year. (*Horizons* 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&143100&tr>).

Graduates of Medical Record Technician program were satisfied with their positions ( $\bar{M}$  = 4.38 on a 5.00 scale). Medical Records graduates had similar overall levels of satisfaction with the components of their program ( $\bar{M}$  = 4.39) and support services ( $\bar{M}$  = 4.10). Program components were consistently rated high by Medical Records graduates with the highest ratings going to Course Content ( $\bar{M}$  = 4.59), Lecture/Lab Experience ( $\bar{M}$  = 4.49), and Preparation for Further Education ( $\bar{M}$  =

4.40). Labor Market Information was rated lowest but still in the satisfied range ( $\underline{M} = 4.20$ ). The highest rated services included Student Activities ( $\underline{M} = 4.64$ ), Career Planning ( $\underline{M} = 4.44$ ), and Financial Aid ( $\underline{M} = 4.38$ ).



**Figure 12.** Medical Records Technology Graduates: FY 1995 & 2000

Figure 12 contains selective comparative information for responding current Medical Records Technology graduates ( $N = 45$ ) and those from fiscal year 1995 ( $N = 62$ ). Results for the current graduates were more positive across the board. The rates of employment, continuing education and working in district were all higher for the more recent Medical Records graduates.

*Rapid growth of medical occupations and a growing use of computers to store and retrieve information is expected to increase demand for those who can transcribe medical information (Horizons, 2001).*

**Medical Transcription.** Medical transcriptionists have specialized knowledge of medical language and keyboarding skills to transcribe patient care documents which are dictated by healthcare professionals. These workers transcribe a variety of diagnostic and treatment reports (emergency room visits, diagnostic imaging studies, operational records, chart reviews, etc.). To interpret and accurately transcribe dictated reports into a format

that is readily understandable, the medical transcriptionist must comprehend the language of medicine, anatomy and physiology, diagnostic procedures, and treatment protocols. They also must have the ability to translate medical jargon and abbreviations into their expanded forms. The records are reproduced from tapes, recording machines or from handwritten notes. Complete and accurate medical records are one of the building blocks upon which further diagnosis and subsequent treatment are built. Reports eventually become part of the patient's permanent file and are also used in compiling health statistics, medical and scientific research, and legal claims (Horizons 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&143400&tr>; Occupational Outlook Handbook 2001, <http://stats.bls.gov/oco/ocos152.htm>).

For medical transcriptionist positions, completion of high school is a minimum requirement for employment. Many one-year certificates and two-year associate degrees are available at community



colleges in Illinois. Certification is voluntary but is available through the Medical Transcriptionist Certification Commission (MTCC) of the American Association for Medical Transcription (AAMT). Certification is awarded upon successful completion of a two-part MTCC exam and payment of applicable fees (*Horizons* 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&143400&tr>).

Currently, a slight shortage of medical transcriptionists exists. Nationwide, employment growth is expected to be about as fast as average through 2008. Rapid growth of medical occupations and a growing use of computers to store and retrieve information is expected to increase demand for those who can transcribe medical information. Individuals who earn an Associate's degree or national certification should have the best opportunities for employment. (*Horizons* 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&143400&tr>).

The Illinois Community College System enrolled 677 students in Medical Transcription programs during fiscal year 2000. The response rate for the survey was 64.4 percent as 56 graduates from 14 colleges returned usable surveys. College of DuPage accounted for nearly 43 percent of the respondents (N = 24) with the next largest group of respondents from Kennedy-King College in Chicago (seven graduates or 12.5 percent).

Generally Medical Transcription graduates were progressing, but survey responses raise some concerns about unemployment levels and the extent to which graduates were working outside the field. Nine out of ten Medical Transcription program graduates were either employed (N = 40) or simultaneously working and enrolled in further education (N=10). Five graduates were unemployed when the survey was conducted and these individuals have not been enrolled in additional education since graduating. Among working graduates, 61.2 percent were in full-time positions and 38.8 percent were working part-time. Those employed in part-time positions tended to be working in the field (73.3 percent).

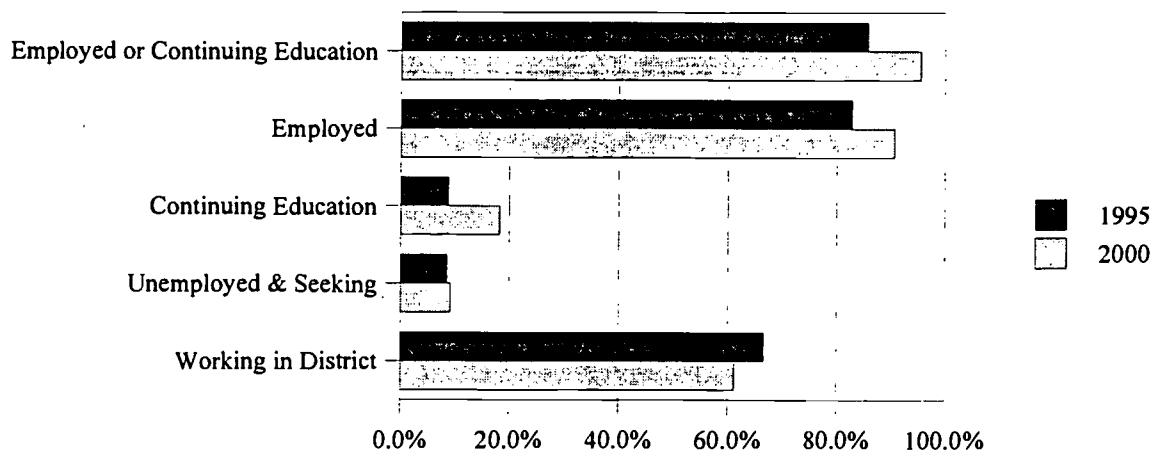
Ten working graduates were employed in jobs not related to Medical Transcription. Reasons cited for working outside the field included: could not find work in the field (N = 6), preferred to work in another field (N = 1), preferred not to move (N = 1), in a temporary position (N = 1), and other unspecified (N = 1). The number of graduates indicating they were unable to locate employment in the field prompted further examination which revealed that graduates from the two largest programs encountered some challenges locating suitable employment. Two of 24 College of DuPage graduates were unemployed and three were in jobs unrelated to the program because they could not locate a job in the field. Three of the seven Kennedy-King College graduates were unemployed. Two Kennedy-King College graduates were working in unrelated part-time positions and one of them was working outside the field because she could not find a Medical Transcriptionist job.

Ninety-six percent of the Medical Transcription graduates were working either in-district (61.2 percent) or out-of district but in Illinois (34.7 percent) and contributing to the state economy. Eighty-two percent of the graduates attained their current positions either during enrollment or after program completion (42.9 percent).

Statewide, community college Medical Transcription graduates in full-time positions earned \$12.44 per hour or \$25, 875 a year. Those working part-time earned somewhat higher wages at \$13.22 per

hour. In this field it is not uncommon to pay on a project/piecemeal basis. Community college graduates are earning competitive wages. According to *Horizons* (2001) in 1998, salaries ranged from about \$15,800 to \$22,600 a year for medical transcriptionists working in Illinois. (<http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&143400&tr>). According to *A Guide to Health Careers in Illinois* (2001) the average annual wage for health medical transcriptionists in Illinois was \$27,000 (<http://www.ioicc.state.il.us/healthcareers/Salary.htm>). Nationally, court reporters, medical transcriptionists, and stenographers had median annual earnings of \$25,430 in 1998. Median 1997 annual salaries in the industries employing the largest number of these workers were Hospitals – \$23,500 and offices/clinics of medical doctors – \$22,600. According to the 1999 Hay Group survey about three-quarters of healthcare institutions paid their medical transcriptionists for time worked, with average salaries ranging from \$20,000 to \$30,000 annually. About a fifth of those respondents used a combination of payment methods (time worked plus incentive for production), with average salaries ranging from \$28,000 to \$36,000 annually. Regardless of specialty, earnings depend on education, experience, and geographic location. *Occupational Outlook Handbook* 2001, <http://stats.bls.gov/oco/ocos152.htm>).

As anticipated, graduates working as Medical Transcriptionists were more satisfied ( $\underline{M} = 4.16$ ) with their positions than those in unrelated positions ( $\underline{M} = 3.00$ ). Overall, graduates were about equally satisfied with the college services ( $\underline{M} = 4.22$ ) and the programs they completed ( $\underline{M} = 4.14$ ). The highest rated college services included audio/visual services ( $\underline{M} = 4.67$ ) and tutoring ( $\underline{M} = 4.50$ ). The highest rated aspects of the Medical Transcription programs were the lecture/lab experiences ( $\underline{M} = 4.36$ ) and course content ( $\underline{M} = 4.23$ ). Lowest rated services and programmatic aspects mirror one another. Career ( $\underline{M} = 3.68$ ) and transfer planning ( $\underline{M} = 3.22$ ) were the lowest rated services. Labor market/employment information ( $\underline{M} = 3.86$ ) and preparation for further education ( $\underline{M} = 4.10$ ) were the lowest rated programmatic aspects.



**Figure 13.** Medical Transcription Graduates: FY 1995 & 2000

Figure 13 contains comparative information about Medical Transcription graduates from fiscal year 2000 and fiscal year 1995. Outcomes were similar for both groups. Recent graduates had somewhat higher employment and continuing education rates. The unemployment rate was slightly lower in 1995 and in-district employment was higher.

*Paralegals is one of the 50 fastest growing occupations in Illinois. Employment growth is the outcome from law firms and other employers with legal staffs increasingly hiring paralegals to lower the cost and increase the availability and efficiency of legal services (Horizons, 2001).*

**Legal Assistant.** Legal assistants – also known as paralegals – assist lawyers in the performance of legal services. They have many duties under the direction of a lawyer, including researching and interpreting law sources, interviewing clients for information, and preparing legal documents. They can assume any duty delegated to a lawyer except appearing in court, giving legal advice, accepting cases and setting fees. Many legal assistants specialize in one area of law such as real estate, employee relations, probate, corporate law, family

law, or welfare law. Some are generalists working in many areas of law. (*Horizons* 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&843300&tr>).

Nationally, paralegals are projected to rank among the fastest growing occupations in the economy through 2008. Paralegals is one of the 50 fastest growing occupations in Illinois. Employment growth is the outcome from law firms and other employers with legal staffs increasingly hiring paralegals to lower the cost and increase the availability and efficiency of legal services. However, as the number of graduates of paralegal training programs and others seeking to enter the profession outpaces job growth, stiffer competition is expected. (*Outlook Handbook* 2001, <http://stats.bls.gov/oco/ocos114.htm>).

In Illinois, this is a medium-sized occupation with about 11,430 employees. Most are located in the major cities in large law firms. Approximate regional employment is: Northeastern Illinois — 9,160; Northwestern — 890; East Central Illinois — 410; West Central Illinois — 370; Southwestern — 470; and Southeastern Illinois — 130 (*Horizons*, 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&843300&tr>).

Eighty of the Legal Assistant graduates responded to the survey for a 67.8 percent response rate. Six Illinois community colleges reported responses from Legal Assistant graduates – the most coming from Southwestern Illinois College (N = 26) and William Rainey Harper College (N = 22).

Almost 98 percent of the graduates were either employed, pursuing additional information or both. Almost four out of five were employed and not pursuing more education, while only 2.6 percent were pursuing additional education exclusively. Legal Assistant graduates had a very low unemployment rate of 2.5 percent which is substantially below the average unemployment rate across all programs of 6.3 percent.

Slightly more than 85 percent of working graduates were employed in full-time positions. Full-time working graduates in this field from community colleges made about \$30,326 or \$14.58 an hour, or almost three times the minimum wage. Earnings for full-time workers were slightly below the average for all graduates in this year's study. Hourly earnings for graduates working part-time were lower but still substantial at \$12.99 – slightly more than two-and-one-half times the minimum wage – and higher than the overall average of \$10.92 an hour for all graduates working part-time. According to *Horizons* (2001), salaries vary with employment. Salaries are dependent on education, training, experience, the type and size of the employer, and the geographic location of the job. In

1999, the National Association of Colleges and Employers reports average beginning offers for paralegals nationwide at around \$27,549 a year. According to the Illinois Department of Employment Security's 2000 Wage Data, the median salary range for Paralegals was between \$30,784 and \$33,945 per year. These data show that community college graduates earned competitive wages.

Legal Assistant graduates rated their college program components fairly high ( $\bar{M} = 4.33$ ) compared to graduates from other occupations. Job preparation and preparation for further education were rated especially high ( $\bar{M} = 4.29$  and  $\bar{M} = 4.32$ , respectfully). Labor market employment information was also rated fairly high ( $\bar{M} = 4.10$ ) in comparison to other graduates.

Generally, Legal Assistant graduates' ratings on service programs were very close to the averages across all programs. However, these graduates seemed to be very satisfied with the services of financial aid ( $\bar{M} = 4.30$ ) and academic advising ( $\bar{M} = 4.24$ ), as well as student activities ( $\bar{M} = 4.41$ ). Relatively low ratings were given to transfer planning ( $\bar{M} = 3.62$ ) and tutoring ( $\bar{M} = 3.88$ ).

Figure 14 seems to illustrate that the more recent completers were slightly better off than the 1995 graduates. The 2000 graduates had a higher rate of those employed or continuing education or both (98 percent for 2000 and 90 percent for 1995). In addition, 2000 completers had a higher rate of employment (95 percent) than 1995 completers (84 percent) and lower unemployment (3 percent versus 6 percent). Graduates from 2000 were slightly less likely to be employed in the district where they received their training.

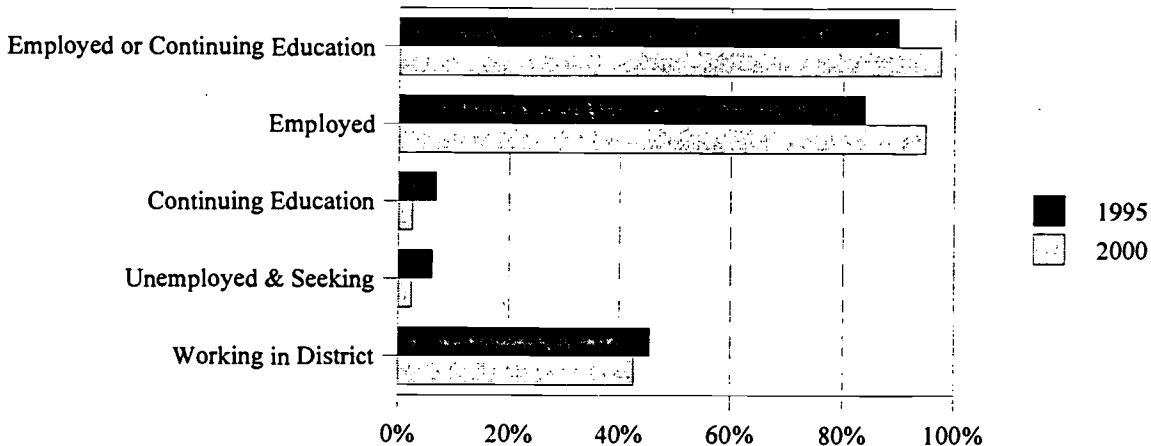


Figure 14. Paralegal/Legal Assistant Graduates: FY 1995 & 2000

*Generally, the demand for engineering technicians will vary with specialty... Opportunities will be best for individuals who complete two-year programs in engineering technology Horizons (2001).*

**Electromechanical Instrumentation and Maintenance Technology.** Graduates from these programs gain knowledge in fields of engineering technology related to manufacturing, production, and assembly plant process. Electromechanical instrumentation and maintenance technology graduates work in

major areas of technology involved in the operation and control of manufacturing and production process, including principles of machine design, instrumentation and monitoring methods, automated control techniques, thermal and fluid sciences, computerized manufacturing systems, principles of electrical and electronic circuit operation, computer-aided drafting and design, economics of production, and statistical analysis and quality control. As technology becomes more sophisticated, employers look for qualified technicians to operate this equipment (*Horizons* 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&245100&tr>).

Generally, the demand for engineering technicians will vary with specialty. On the other hand, productivity improvements related to technological advancements may require fewer technicians on the job. Opportunities will be best for individuals who have completed a two-year program in engineering technology. According to the Illinois Department of Employment Security, the short-term forecast for "engineering technicians" is favorable (*Horizons* 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&245100&tr>).

The three community college electromechanical instrumentation and maintenance technology programs included in this report include:

<u>Program Area</u>	<u>CIP Code</u>
Computer Maintenance Technology/ Technician	150402
Robotics Technology/Technician	150405
Automated Manufacturing Technology	150411

*Much faster than average growth is expected for the employment of computer maintenance technicians through 2008 nationwide and in Illinois (Horizons, 2001).*

**Computer Maintenance Technology/Technician.**

Computer maintenance technicians maintain and repair computers and computer-related equipment. Other duties include helping install the equipment and performing routine services such as cleaning and oiling mechanical parts and checking electronic equipment. When computers break down, technicians determine the cause and replace or repair faulty equipment.

Another responsibility includes answering customer questions and giving technical advice on ways to keep equipment in good operating condition. However, the largest part of the technician's work is on equipment such as terminals and card readers. Technicians specialize in different areas of computer technology including maintaining certain types of equipment and doing certain types of repair such as correcting problems caused by errors in computer's internal programming (*Horizons* 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&316500&tr>).

This small occupation employs about 2,320 individuals in Illinois not including those in the military. Approximate regional employment is: Northeastern Illinois — 1,870; Northwestern Illinois — 260; East Central Illinois — 70; West Central Illinois — 70; Southwestern Illinois — 30; and Southeastern Illinois — 20. Much faster than average growth is expected for the employment of computer maintenance technicians through 2008 nationwide and in Illinois. The demand for



computer repair persons will increase as the demand of computer equipment, for both offices and homes, increases. Additionally, the continued development of new computer hardware and software will spur demand for technicians to install and upgrade existing computer systems. According to the *Illinois Department of Employment Security*, the short-term forecast for data processing equipment repairers through the year 2001 is very favorable (*Horizons 2001*, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&316500&tr>).

The response rate for Computer Maintenance Technology graduates was 55.6 percent with 25 of 45 graduates responding. Six colleges reported outcomes for their computer maintenance technology graduates. Triton College, College of DuPage, and Olive-Harvey College were among the colleges with the larger programs in this area. Just over 91 percent of the computer maintenance technicians were either working, going to school, or both. Among those graduates who reported on their employment and participation in further education: 52.4 percent were working exclusively, 19.0 percent were only going to school, and 28.6 percent were engaged in both activities. Nine out of the ten graduates who were pursuing additional education were studying in a related field.

More than seven out of ten Computer Maintenance Technology graduates were working. The unemployment rate was 4.3 percent ( $N = 1$ ) and 21.7 percent were not actively seeking employment ( $N = 5$ ). Among working graduates, 82.4 percent were in full-time positions. Among working graduates just 70.6 percent were employed in the field. The satisfaction rate ( $M = 4.75$ ) for individuals working in the field of computer maintenance technology was one of the highest satisfaction rates for any program surveyed in this report. Graduates of Computer Maintenance Technology were additionally very satisfied ( $M = 4.67$ ) working outside of the field. Reasons cited by the three graduates who indicated that they were working in an unrelated job included: preferred to work in another field ( $N = 1$ ), temporary job while in transition ( $N = 1$ ), and health problems prevented individual from working in field ( $N = 1$ ).

Community college Computer Maintenance Technology graduates working in full-time positions earned \$15.99 an hour or an estimated \$33,259 annually. Insufficient earnings data were available for part-time workers. According to a 1999 Bureau of Labor Statistics survey, data processing equipment repairers earned average salaries around \$35,830 a year nationwide (*Horizons 2001*, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&316500&tr>). According to a 2000 study by the Illinois Department of Employment Security, computer data processing equipment repairers had a median wage of \$13.75 an hour. Wages for entry-level computer data processing equipment repairers was \$8.83 per hour compared to \$18.26 an hour for experienced computer data processing equipment repairers (*Illinois Department of Employment Security 2000*, <http://www.ides.state.il.us>).

Eighty-six percent of the Computer Maintenance Technology completers were employed in the district where they received the training. The remaining two graduates were working elsewhere in the state. Four out of five graduates obtained their latest positions either while in training or after they completed their programs. One-fifth of the graduates had their current positions when they entered the program.

Graduates from Computer Maintenance Technology programs were generally satisfied with the programs that they completed ( $M = 3.89$ ). The highest rated components were course content ( $M = 4.12$ ) and preparation for further education ( $M = 4.04$ ) while the lowest rated component was labor

market employment information ( $M = 3.71$ ). Additionally, satisfaction for Computer Maintenance Technology program services were very good. Those services receiving the highest ratings included: transfer planning ( $M = 4.50$ ); library/audio-visual ( $M = 4.45$ ); and counseling ( $M = 4.43$ ). The lowest rated services included student activity ( $M = 3.92$ ) and financial aid ( $M = 3.76$ ).

As Figure 15 illustrates, the 1995 graduates were slightly better off than the most recent graduates. The graphic tends to magnify relatively small numerical changes because of the small number of graduates. The 1995 graduates had an almost identical rate for those employed, continuing education, or both with 2000 graduates (91.3 percent for 1995 versus 91.7 percent for 2000). The 1995 graduates had a higher rate of those employed (86.5 percent for 1995 versus 73.9 percent for 2000). However, the 1995 graduates were more likely to be unemployed (three individuals in 1995 compared to one in 2000). The more recent graduates who found employment were much more likely to remain in the district where they received their training (86.7 percent for 2000 versus 55.6 percent for 1995).

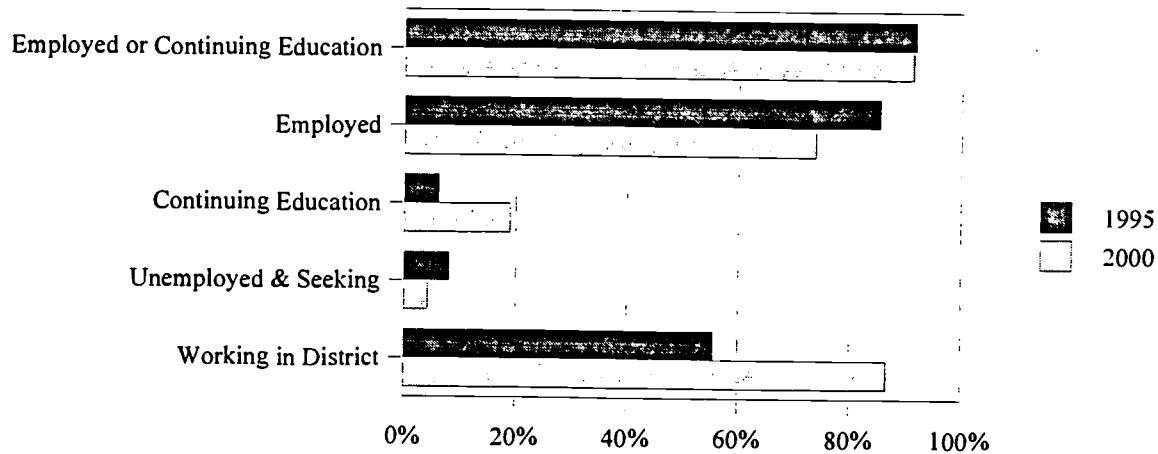


Figure 15. Computer Maintenance Technology Graduates: FY 1995 & 2000

*Opportunities will be good for individuals with specialized technical training in robotics. It is expected that as robots become more programmable and flexible, more skilled workers will be needed to design, build, maintain, and operate them (Horizons, 2001).*

**Robotics Technology/Technician.** Robotics technicians have a wide variety of responsibilities which can include design, development, production, testing, operation, and maintenance of robots and robotic devices. Many technicians install robots and program them to perform specific tasks. They may monitor robotic activities, identify problems and make necessary repairs. They may train others in the installation, use and maintenance of robots. Still, other technicians review diagrams and blueprints, and

draft drawings of equipment parts. They conduct tests on robotic equipment, and analyze and record the test results (Horizons 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&314300&tr>).

Opportunities will be good for individuals with specialized technical training in robotics. It is expected that as robots become more programmable and flexible, more skilled workers will be

needed to design, build, maintain, and operate them. Most employment will be found in firms that manufacture robots, as well as in major industries that use robots in their manufacturing processes. (*Horizons* 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&314300&tr>).

The response rate was 70.0 percent as 14 Robotics Technician graduates responded to the survey. All respondents were either employed, pursuing additional education, or both. Just over 71 percent of these graduates were employed but not pursuing additional education. One individual was pursuing additional education and not employed (7.1 percent), while three individuals were both employed and pursuing additional education (21.4 percent).

Around 92 percent of working Robotics Technician graduates were employed in a related field — well above the average for all occupations of 74.3 percent. The one individual not working in the field indicated not being able to find job in the field as the primary reason for having an unrelated job.

Nearly 62 percent of robotics technician graduates had positions entering the program or acquired the position during program enrollment. Compared to all other programs, a slightly lower than average percentage of students began their employment after program completion (38.5 percent). A high percentage of graduates found work in the college's district (92.3 percent). The remaining graduates found work out-of-district but in the state (7.7 percent).

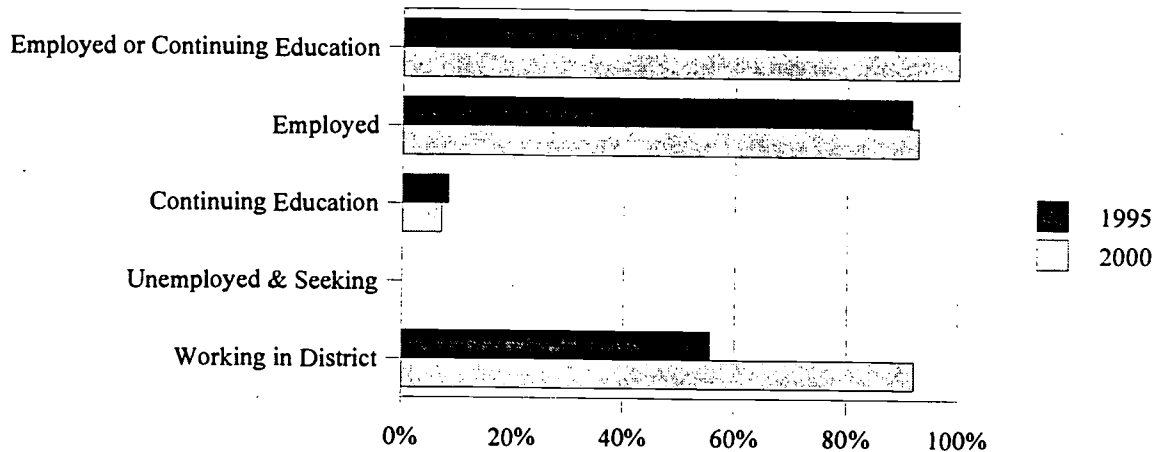
The hourly wage for Robotics Technician graduates working full-time was \$17.31 per hour or \$36,005 annually. The one respondent working part-time earned \$8.00 an hour. According to *Horizons* 2001, positions in Robotics Technology can be found primarily in areas where industrial firms are located. Robotics Technicians who are graduates of a two-year technical program earn between \$22,000 and \$26,000 a year nationwide. However, technicians with special skills, added responsibilities, or extensive experience can earn \$36,000 or more (*Horizons* 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&314300&tr>).

Overall, Robotics Technician graduates were less satisfied ( $\bar{M} = 3.88$ ) with their college's program components than the average for all other programs ( $\bar{M} = 4.18$ ). Course content ( $\bar{M} = 4.31$ ) and lecture/lab experience ( $\bar{M} = 4.08$ ) were rated the highest. Graduates rated labor market employment information the lowest ( $\bar{M} = 3.38$ ).

Robotics Technician graduates rated college services ( $\bar{M} = 4.24$ ) substantially higher than they rated the components of their major. Graduates were very satisfied with tutoring ( $\bar{M} = 5.00$ ) and student activity ( $\bar{M} = 5.00$ ). Career planning ( $\bar{M} = 2.80$ ) was rated the lowest by robotics technician respondents.

Comparisons between 2000 Robotics Technology graduates with 1995 completers show positive outcomes for both years. As illustrated in Figure 16, fiscal year 2000 Robotics Technology graduates exhibited increased rates of being employed and higher percentages of working graduates who found employment within the district where they had received their training (92.3 percent for 2000 versus 55.6 percent for 1995). Graduates from fiscal year 2000 had a slight decrease in the rate of continuing education. The more recent graduates and the 1995 completers were all employed,

continuing education or both. Responding 1995 graduates had a slightly higher proportion of individuals pursuing additional education (8.3 percent for 1995 versus 7.1 percent for 2000).



**Figure 16. Robotics Technology Graduates: FY 1995 & 2000**

*Employment opportunities can vary with industry of employment. Overall employment is projected to grow by about 9 percent between 1998 and 2008 (Occupational Outlook Handbook, 2001).*

**Automated Manufacturing Technology.**

Graduates of automated manufacturing technological programs work extensively within areas of technology dealing with robots, computer integrated systems, robot controllers, programmable logic controllers, microprocessors, motor control circuits, electronic circuits, mechanical systems, fluid

power systems and computer programming (Occupational Outlook Handbook 2001, <http://stats.bls.gov/oco/cg/cgs010.htm>).

Opportunities for employment are available in areas of automated industry. Areas of employment can include paper, packaging, food, metals, trucks, and many other. There are also a wide variety manufacturers producing automated equipment which may include manufacturers of conveyors and automated material handling equipment, paper and packaging machines, computer numerically controlled machines, industrial computer controllers, and many other types of automated equipment (Occupational Outlook Handbook 2001, <http://stats.bls.gov/oco/ocos186.htm>).

Automated technology is a medium-sized community college program with enrollments of 425 students in fiscal year 2000. Just under 55 percent of the automated manufacturing technology graduates responded to the survey (N = 17 of 31). Eight community colleges provided information on their automated manufacturing technology graduates. Oakton Community College (N = 6), John A. Logan College (N = 3), and Illinois Valley Community College (N = 3) were responsible for the most responses. All respondents were either employed, pursuing additional education, or both. Nearly 65 percent were exclusively employed, while 17.6 percent were both employed and pursuing additional education.

Satisfaction for those graduates working in a related field ( $\bar{M} = 3.91$  on a 5.00 scale), was substantially close to those working in an unrelated field ( $\bar{M} = 4.00$ ). One out of every seven employed automated manufacturing technology graduates was working in a job unrelated to their training. Preferred to work in another field ( $N = 1$ ) and other ( $N = 1$ ) were the reasons cited for working in unrelated positions.

Almost 93 percent of working automated manufacturing technology graduates either were already employed in their current position when they entered the program or began their jobs during enrollment. Close to 7 percent of graduates working found employment after completing the program. A relatively high percentage (78.6 percent) found work within their college district. About 21 percent were working outside of the district, but in Illinois. There were no individuals working outside of the state.

Approximately 92.9 percent of working graduates were employed in full-time positions. Full-time Automated Manufacturing Technology graduates earned \$20.24 per hour or \$42,099 annually. Their earnings were almost four times higher than minimum wage (\$5.15 an hour) and relatively higher than the average for all graduates (\$16.39 per hour) in this year's study. Insufficient earnings data were available for part-time workers. Directly comparable salaries were difficult to locate. A general range for workers in the broader occupation was between \$15.30 to \$18.44 per hour. *Occupational Outlook Handbook 2001*, <http://stats.bls.gov/oco/cg/cgs010.htm> ).

Generally, Automated Manufacturing Technology graduates had among the highest overall ratings for satisfaction with program components ( $\bar{M} = 4.47$ ). Their highest ratings were for lecture/lab experience ( $\bar{M} = 4.71$ ), equipment facilities materials ( $\bar{M} = 4.65$ ), and course content ( $\bar{M} = 4.59$ ). The lowest rated component was labor market employment information ( $\bar{M} = 4.00$ ) and job preparation ( $\bar{M} = 4.19$ ). The overall rating for services for the Automated Manufacturing Technology program was the second highest rated among all occupational programs ( $\bar{M} = 4.37$ ). Services receiving particularly high ratings included tutoring ( $\bar{M} = 5.00$ ), transfer planning ( $\bar{M} = 4.63$ ), and library/audio-visual ( $\bar{M} = 4.62$ ). Counseling ( $\bar{M} = 4.20$ ) and financial aid ( $\bar{M} = 4.20$ ) were the lowest rated services, but still fell in the satisfied range.

The number of community college Automated Manufacturing Technology respondents in fiscal year 2000 ( $N = 17$ ) was slightly lower than fiscal year 1995 ( $N = 23$ ). Comparisons between 2000 graduates with 1995 completers show that both graduates had generally positive outcomes. As Figure 17 shows, 2000 graduates had slightly higher rates for those individuals continuing their education, as well as a higher number for graduates employed in the district where they received their training. The 1995 graduates had a slightly higher rate of graduates employed. Still, for fiscal year 1995 and fiscal year 2000 graduates, all graduates had a 100 percent rate of employment, continuing education, or both.



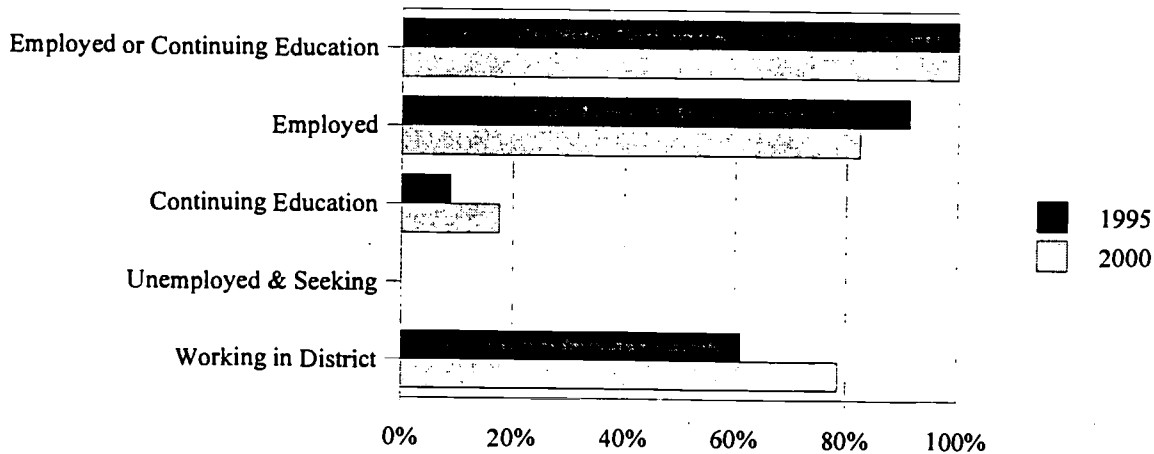


Figure 17. Automated Manufacturing Technology Graduates: FY 1995 & 2000

*Both nationally and in Illinois, employment growth is expected to be average for electricians through 2008. Increased use of computer technology and telecommunications by businesses and homes will create a need for electricians skilled in specialty areas. Many openings will occur as experienced electricians leave the labor force (Horizons, 2001).*

**Electrician.** Electricians install wiring and maintain electrical equipment such as generators and lighting systems. They work with blueprints when they install electrical systems in factories, office buildings, homes, and other structures. Blueprints indicate the location of circuits, outlets, load centers, panel boards, and other equipment. Electricians must be sure their work conforms to local building codes and that it will pass inspection. In factories and offices,

to install wiring, they bend, fit and fasten conduit pipe or tubing inside partitions, walls, or other concealed areas. They also fasten to the wall small metal or plastic boxes that will house electrical switches and outlets. To complete circuits between outlets and switches, electricians pull insulated wires or cables through the conduit. They connect the wiring to circuit breakers, transformers, and other proper connections. Maintenance electricians keep lighting systems in good working order. Duties of maintenance electricians vary, but most of their time is spent doing preventive maintenance. They may also install electrical equipment (Horizons 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&562600&tr>; Occupational Outlook Handbook 2001, <http://stats.bls.gov/oco/ocos206.htm>).

Both nationally and in Illinois, employment growth is expected to be average for electricians through 2008. However, according to the Illinois Department of Employment Security, the short-term forecast for “electricians” through 2001 is very favorable. The outlook for electricians varies by the economy, area, and the level of manufacturing and construction activities. Employment opportunities follow the movement of people and businesses among States and local areas, and reflect differences in local economic conditions. In addition, increased use of computer technology and telecommunications by businesses and homes will create a need for electricians skilled in these specialty areas. Many openings will occur as experienced electricians leave the labor force. However, competition will remain strong for employment because many people complete training

program and apprenticeships in this field each year in Illinois (Horizons 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&562600&tr>, Outlook Handbook 2001, <http://stats.bls.gov/oco/ocos206.htm>).

In Illinois, this is a medium-sized occupation with about 27,580 people employed not including the military. Approximate regional employment is: Northeastern Illinois — 18,300; Northwestern Illinois — 4,030; East Central Illinois — 1,600; West Central Illinois — 960; Southwestern Illinois — 2,000; and Southeastern Illinois — 690 (Horizons 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&562600&tr>).

Forty-nine Electrician graduates responded to the survey for a response rate of 62 percent. Eight community colleges had electrician graduates in 2000 and seven of them received responses to the survey. The three colleges with the most responses were Prairie State College (N = 18), Rock Valley College (N = 14) and Southwestern Illinois College (N = 11).

Almost 94 percent of Electrician graduates were employed, going to school or both. Nearly 96 percent of electrician completers were exclusively employed. This employment rate is much higher than the average employment rate of 67.6% for all graduates. No Electrician program graduates were pursuing additional education exclusively and the rate of those unemployed was low at 2.0 percent. All working graduates were employed full-time. Nearly 96 percent of those employed were working in a related field. Two graduates who were not working in a related field – one was in transition and the other could not find a job in the related field. Those working in a related field had a high level of job satisfaction ( $\bar{M} = 4.73$ ).

Electrician graduates rated program components slightly higher on average than other graduates. The two components rated the highest by Electrician completers were course content ( $\bar{M} = 4.51$ ) and lecture/lab experience ( $\bar{M} = 4.43$ ). These graduates were less satisfied with labor market employment information ( $\bar{M} = 3.87$ ).

Generally, Electrician graduates were fairly satisfied with school services. They were especially satisfied with financial aid ( $\bar{M} = 4.88$ ) and career planning ( $\bar{M} = 4.29$ ). Electrician completers seemed to be less satisfied with academic advising ( $\bar{M} = 3.67$ ) and library/audio-visual ( $\bar{M} = 4.17$ ).

Illinois Community College System graduates in full-time positions earned \$21.92 an hour. This was well above the average hourly wage of \$16.39 for all graduates and more than four times the minimum wage. According to *Horizons*, wages vary geographically and according to employer. Nationally, in 1999, electricians earned an average wage of \$16.13 an hour, according to a Bureau of Labor Statistics survey. In Illinois, rates for union electricians in 1999 varied throughout the state ranging between \$19.60 and \$30.83 per hour. Apprentices start at 30 to 50 percent of the rate paid to experienced electricians. (Horizons 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&562600&tr>). The Illinois Department of Employment Security's 2000 Wage Data reports that the median hourly salary for Electricians and Power-Line Transmission Installers and Repairers was \$11.52.

Figure 18 contains some comparative information for selected items between Electrician graduates in 2000 with 1995 completers. Outcomes for graduates in both time frames were favorable.

Graduates in 2000 had a low unemployment rate of 2 percent, while no graduate from the 1995 timeframe was unemployed. Both the 1995 and 2000 graduates had a high rate of those employed, continuing education or both (98 percent for 1995 and 94 percent for 2000). The 1995 graduates had a higher rate of those employed than did the 2000 completers (98 percent for 1995 and 94 percent for 2000). No graduate from either timeframe was continuing their education exclusively. Graduates from 2000 were more likely to remain in the district where they received their training.

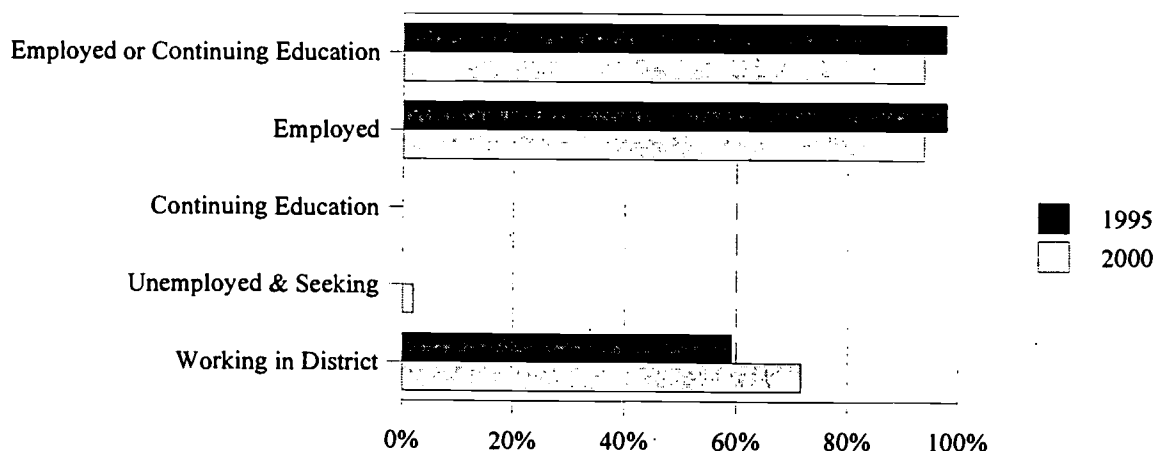


Figure 18. Electrician Graduates: FY 1995 & 2000

*In Illinois, employment is projected to show slower than average growth through the year 2006. Most job openings that arise will be from the need to replace those who transfer to other kinds of work or leave the labor force (Horizons, 2001).*

**Radio and Television Broadcasting.** Radio and television broadcasters talk to audiences over the airwaves, providing information and entertainment. Announcers in radio and television perform a variety of tasks on and off the air. They may read/broadcast news, weather, commercials, sports or station announcements. Radio announcers are often called disc jockeys. They handle a variety of

duties such as introducing and playing music, reading, writing, and producing commercials, and logging meter readings. Television announcers, when on the air, announce only, and perform no technical duties. Broadcasters working for television or large radio stations usually specialize in one area such as sports, news, or weather. Their responsibilities may include doing research and writing (Horizons 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&982400&tr>, Occupational Outlook Handbook 2001, <http://stats.bls.gov/oco/ocos087.htm>).

Nationally, employment of announcers is expected to decline slightly through 2008 due to the lack of growth of new radio and television stations (Occupational Outlook Handbook 2001, <http://stats.bls.gov/oco/ocos087.htm>). In Illinois, employment is projected to show slower than average growth through the year 2006. Most job openings that arise will be from the need to replace those who transfer to other kinds of work or leave the labor force. Increasing consolidation of radio and television stations, new technology, and the growth of alternative media sources will also contribute to the expected decline in employment of announcers. According to the Illinois

Department of Employment Security, the short-term forecast for radio and television broadcasters is unfavorable (Horizons 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&982400&tr>).

Radio and Television Broadcasting is a small occupation. Statewide, around 2,555 people are employed in this occupation. There are radio stations in all areas of the state and television stations in all small and large cities. Approximate regional employment is Northeastern Illinois — 1,670; Northwestern Illinois — 410; East Central Illinois — 260; West Central Illinois — 140; Southwestern Illinois — 60; and Southeastern Illinois — 15 (Horizons 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&982400&tr>).

Over 80 percent of the Radio and Television Broadcasting graduates responded to the survey (N = 18 of 22). Four community colleges provided information on their Radio and Television Broadcasting completers: Kennedy-King College (N = 8), Lewis and Clark Community College (N = 5), Lake Land College (N = 4), and Parkland College (N = 1).

Almost 85 percent of the graduates were either employed, pursuing additional information or both. Almost half (46 percent) were employed and not pursuing more education, while 9.1 percent were pursuing additional education exclusively. Radio and Television graduates had an unemployment rate of 7.7 percent.

Nine out of ten working graduates were employed in full-time positions. Full-time working graduates in this field from community colleges made \$7.79 an hour, approximately one and one-half times the minimum wage. Their earnings were substantially below the average for all graduates in this year's study. There was only one Radio and Television Broadcasting graduate that was employed part-time. This graduate earned \$10.00 per hour. Salaries in broadcasting vary with size and location of the market and station. Generally, salaries are relatively low except for announcers in large stations in major markets or who work for a network. They are higher in television than in radio and higher in commercial than in public broadcasting. According to the 1998 Occupational Wage Survey, in Illinois, Radio and Television Broadcasters earned average salaries ranging from \$12,230-\$25,085/year (Horizons 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&982400&tr>; *Occupational Outlook Handbook* 2001, <http://stats.bls.gov/oco/ocos087.htm>). The Illinois Department of Employment Security's 2000 Wage Data reports that the median salary for Radio and Television Announcers was \$9.29 an /hour.

Generally, Radio and Television Broadcasting graduates' ratings on the program components were very close to the averages across all programs. However, these graduates seemed to be very satisfied with the component of equipment facilities materials, giving it an average rating of 4.56 on a 5.00 scale.

Overall, Radio and Television Broadcasting graduates were not very satisfied with their college services. In fact, their overall average rating of 3.88 was the lowest among all the graduates. Particularly low were the ratings on career planning ( $\bar{M}$  = 3.25), academic advising ( $\bar{M}$  = 3.33), and tutoring ( $\bar{M}$  = 3.50). Radio and television broadcasting graduates were satisfied with the financial aid ( $\bar{M}$  = 4.45) services they received.

Comparisons between 2000 Radio and Television graduates with 1995 completers show that positive outcomes for both. The small numbers involved advise against placing too much emphasis on the differences. As Figure 19 shows, 1995 graduates had a higher rate of those employed or continuing education or both (94 percent for 1995 and 85 percent for 2000). However, 2000 graduates had a higher rate of those employed (77 percent versus 75 percent) and those exclusively continuing education (20 percent versus 9.1 percent). In addition, the more recent graduates compared favorably with the 1995 completers in terms of unemployment (8 percent and 13 percent, respectively). Graduates from 2000 were slightly less likely to be employed in the district where they received their training.

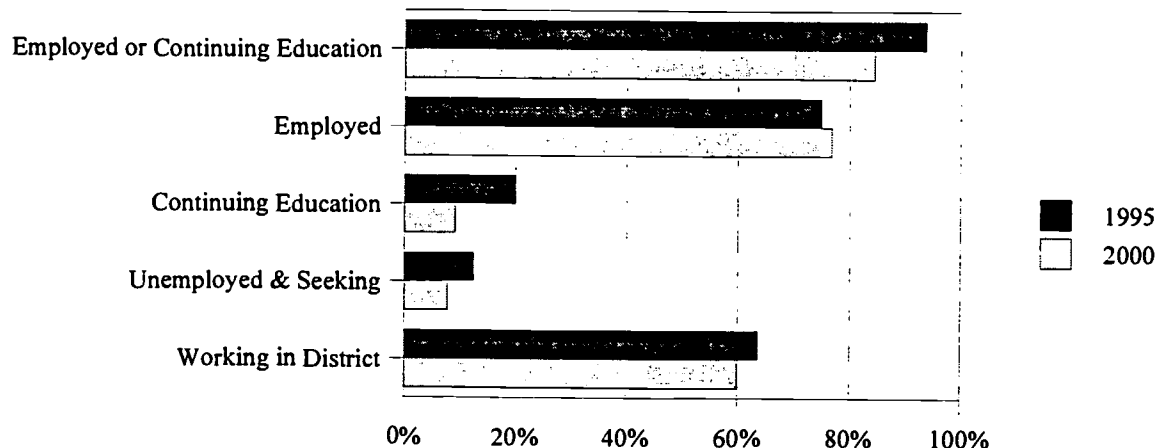


Figure 19. Radio and Television Broadcasting Graduates: FY 1995 & 2000

*Nationally and in Illinois, employment for communications technologies is expected to decline through 2008 due to improvements in the reliability of communication products (Horizons, 2001).*

**Communications Technologies.** These programs prepare individuals for employment opportunities in areas of mass communications. Communication technology technicians install and repair electric and electronic equipment such as radios, televisions, stereo equipment, and video equipment. Technicians check for loose connections, defective parts, and faulty circuits. Employers prefer applicants who have basic knowledge

and skill in electronics. Individuals in this field should be familiar with schematics and have some hands-on experience repairing electronic equipment. Many applicants gain these skills at vocational training programs and community colleges. Experienced repairers with advanced training may become specialists or troubleshooters, who help other repairers diagnose difficult problems (*Occupational Outlook Handbook 2001*, <http://stats.bls.gov/oco/ocos187.htm>, *Horizons 2001*, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&316800&fr>).

Increased demand for televisions and radios, and in the use of visual and audio media in education, business and industry is expected to continue. However, nationally and in Illinois, employment for communications technologies is expected to decline through 2008 due to improvements in the reliability of communication products. In addition, the low cost of some equipment makes replacing



easier than repairing the product. Although the need for communications technicians is decreasing, as technology in the field undergoes constant change, technicians who can adapt to the changing technology will be in more demand (*Horizons* 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&316800&fr>).

There were ten responses from Communication Technologies graduates for a response rate of 62.5 percent. The College of DuPage, Wabash Valley College, and John Wood Community College all reported on their graduates in this area. All ten graduates were employed, pursuing further education, or both. Six were exclusively employed and four were employed and pursuing further education.

Six working graduates in Communications Technologies were employed in a related area. Job satisfaction ratings for the six who were employed in a related field indicated their level of employment satisfaction was only 2.83, which was the second lowest rating among all occupations. There were three individuals who did not find employment in a related field. Two individuals chose an unrelated field because they found a better paying job while the other graduate had a temporary job while in transition.

Two Communications Technologies graduates acquired their jobs prior to entering the program. Five graduates began employment during program enrollment, and the remaining three began working in their current positions after program completion. One and one-half of the working graduates found employment within their college's district. Two graduates worked out of the district, but in Illinois, while three graduates were working outside of the state.

There were six Communications Technologies graduates employed full-time. Average hourly salary for full-time communications technologies graduates was \$11.83, well under the average hourly salary for all programs (\$16.39/hour). Yearly salary for a full-time communications technologies graduate was \$24,606. Working part-time graduates average hourly salary was \$6.92 for an annual salary of \$14,394. According to a 2000 study by the Illinois Department of Employment Security, the median wage for broadcast technicians was \$16.07/hour. Wages for entry-level broadcast technicians were \$6.96/hour, while the wages for experienced technicians were \$23.93/hour (*Illinois Department of Employment Security* 2000, <http://www.ides.state.il.us>).

Communications Technologies graduates rated their college program components fairly average ( $M = 4.03$ ) in relation to graduates from other occupations. Those components rated particularly low compared to the average for all programs were equipment/facilities materials ( $M = 3.80$ ), job preparation ( $M = 3.70$ ), and preparation for further education ( $M = 3.90$ ). Lecture/lab experience ( $M = 4.56$ ), along with labor market employment information ( $M = 3.89$ ), were rated higher than the average for all graduates from other occupations in this report.

Communications Technologies graduates were not very satisfied with program services in comparison to other programs reviewed for this report. In fact, communications technologies graduates were the least satisfied among all programs surveyed for this report ( $M = 3.72$ ). Services that received especially low ratings relative to the average overall ratings for all programs were those of financial aid ( $M = 2.71$ ), transfer planning ( $M = 2.75$ ), and academic advising ( $M = 3.44$ ).

Graduates were most satisfied with tutoring ( $M = 4.50$ ), student activity ( $M = 4.50$ ), and career planning (4.00).

Figure 20 contains information about Communications Technologies graduates from fiscal year 2000 and fiscal year 1995. Results were favorable in both years. The graphic tends to magnify relatively small numerical changes because of the small number of graduates. The rate of those employed, continuing education or both was equal (100 percent for 1995 and 2000). The more recent graduates had a higher rate of those exclusively employed (100 percent for 2000 versus 86.7 percent for 1995). In addition, 1995 graduates who found employment were more likely to remain in the district where they received their training (61.1 percent for 1995 versus 50 percent for 2000). The unemployment rate for recent graduates and 1995 completers was equal (0.0 percent for both).

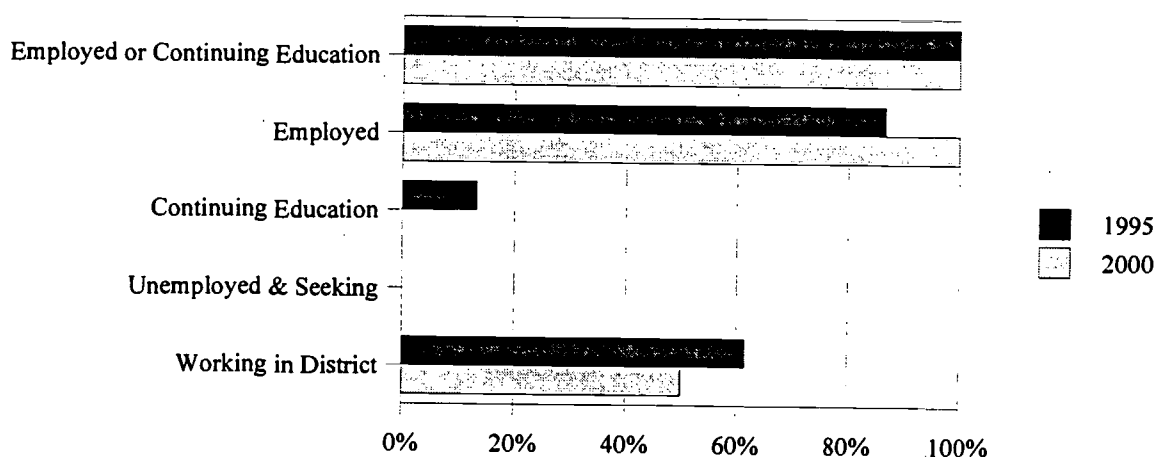


Figure 20. Communications Technologies Graduates: FY 1995 & 2000

*In Illinois, much slower than average growth in the employment of clothes designers and patternmakers is expected through 2008. The demand for entry-level patternmakers is weak because many people complete training each year (Horizons, 2001).*

**Fashion and Fabric Consultant.** Individuals in this field can be involved in many different activities including textile design, fashion merchandising, apparel and flat pattern design, clothing construction, fashion illustration, and professional design room practices such as draping and tailoring (*Occupational Outlook Handbook 2001*, <http://stats.bls.gov/oco/ocos090.htm>).

Most employers prefer applicants with experience and formal training. Employers that hire the inexperienced usually look for graduates of schools of design. Graduates usually start as assistant designers or in technical jobs such as patternmakers. Most patternmakers pick up the skills of the trade by working for several years as helpers to experienced patternmakers (*Horizons 2001*, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&444200&tr>).

Nationally, designers held about 423,000 jobs in 1998. According to the *Occupational Outlook Handbook*, four out of ten designers were self-employed (<http://stats.bls.gov/oco/ocos090.htm>).

There are approximately 320 people employed as designers in Illinois. Approximate regional employment is: Northeastern Illinois — 250; Northwestern Illinois — 30; East Central Illinois — 0; West Central Illinois — 0; Southwestern Illinois — 30; and Southeastern Illinois — 10. Salaries vary greatly in this occupation, especially for designers (*Horizons* 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&444200&tr>).

Nationally, a decline in the employment of apparel workers is projected through 2008. In Illinois, much slower than average growth in the employment of clothes designers and patternmakers is expected through 2008. The demand for entry-level patternmakers is weak because many people complete training in clothes design and patternmaking each year (*Horizons* 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&444200&tr>).

In the community college system, this is a small program. The response rate was 50 percent as seven of the 14 Fashion and Fabric Consultant graduates responded to the survey. College of DuPage and William Rainey Harper College provided information about their fiscal year 2000 Fashion and Fabric Consultant graduates. The number of respondents involved makes small numeric changes yield large percentage fluctuations. Five of the graduates were employed, pursuing further education, or both. Two graduates were exclusively employed, one was exclusively enrolled in additional education, and two were employed and pursuing further education. Two individuals were unemployed.

Of the four working Fashion and Fabric Consultant graduates, one was employed in a related area, while the other three were working in another field. Job satisfaction rating for the one individual who was employed in a related field indicated the level of satisfaction with employment was satisfactory ( $\bar{M} = 4.0$ ). There were three individuals who did not find employment in a related field. The reasons for not working in a related field included: could not find a job in the fashion and fabric consultant field ( $N = 1$ ), temporary job while in transition ( $N = 1$ ), and not indicated ( $N = 1$ ).

Two Fashion and Fabric Consultant graduates acquired their jobs during program enrollment, while the other two individuals began working in their current positions after program completion. All four working graduates found employment within their college's district.

Working full-time Fashion and Fabric Consultant graduates had an average hourly salary of \$11.24. Yearly salary for a fashion and fabric consultant graduate was approximately \$23,379. According to *Horizons*, 2001, wages depend upon skill, creativity, and reputation. Entry rates for patternmakers average about \$17,000 a year. Top wages for experienced patternmakers are about \$34,800 per year. Starting salaries for designers average about \$20,400 a year. For experienced designers, salaries may range between \$26,400 and \$47,000 annually (*Horizons* 2001, <http://www.ioicc.state.il.us/scripts/ilicis/info.exe?occ&444200&tr>). According to a 2000 study by the Illinois Department of Employment Security, fabric/apparel patternmakers had a median wage of \$11.11 an hour. Wages for entry-level fabric/apparel patternmakers was \$7.75 per hour compared to \$13.51 an hour for experienced fabric/apparel patternmakers (*Illinois Department of Employment Security* 2000, <http://www.ides.state.il.us>).

Fashion and fabric consultant graduates rated their college components very high ( $\bar{M} = 4.49$ ) compared to graduates from other programs. Each component was rated higher than the statewide

average. The higher rated components included job preparation ( $\bar{M} = 4.43$ ), lecture/lab experience ( $\bar{M} = 4.71$ ), and course content ( $\bar{M} = 4.71$ ). The lowest rated component was labor market employment information ( $\bar{M} = 3.80$ ), but was still rated satisfactory.

Program services for Fashion and Fabric Consultant graduates were rated highest among programs surveyed for this report ( $\bar{M} = 4.71$ ). Services which received particularly high ratings were financial aid ( $\bar{M} = 5.00$ ), career planning ( $\bar{M} = 5.00$ ), counseling ( $\bar{M} = 5.00$ ), and library/audio-visual ( $\bar{M} = 5.00$ ). Tutoring received the lowest rating ( $\bar{M} = 4.00$ ).

Figure 21 illustrates differing outcomes in fiscal year 1995 and fiscal year 2000. There were seven respondents from 2000 and eight respondents from 1995. Results were similar for both groups of graduates. The graphic tends to magnify relatively small numerical changes because of the small number of graduates. The more recent graduates had a higher rate of those employed, continuing education or both (71.4 percent for 2000 versus 62.5 percent for 1995). The more recent graduates who found employment were much more likely to remain in the district where they received their training (100 percent for 2000 versus 20 percent in 1995). The rate of those exclusively employed was higher for 1995 graduates than for the more recent graduates (62.5 percent for 1995 versus 57.1 percent for 2000). However, individuals seeking employment was lower for 1995 graduates compared to more recent graduates.

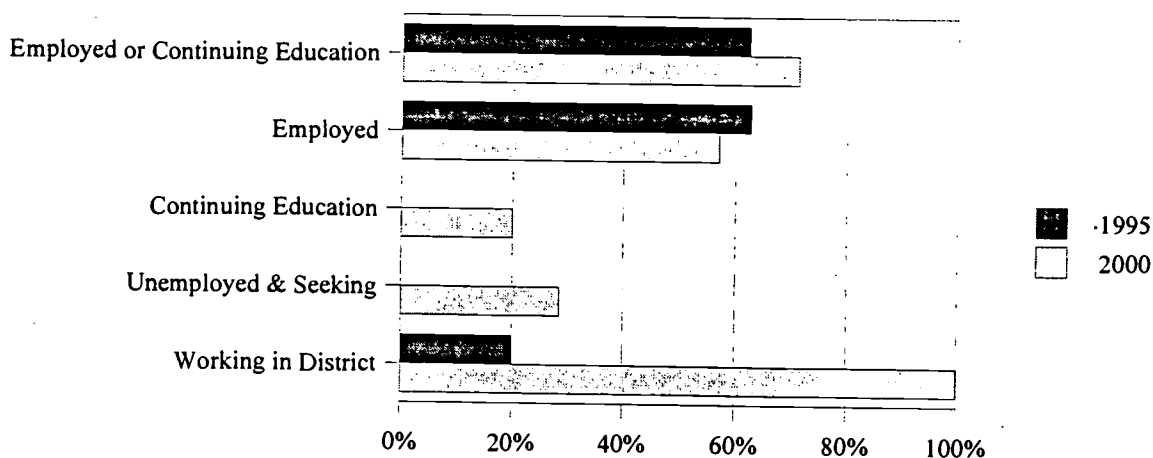


Figure 21. Fashion and Fabric Consultant Graduates: FY 1995 & 2000

### Conclusions and Recommendations

At the time that the latest *Occupational Follow-Up Survey* was administered this past spring, there were signals that the economy was slowing nationally. The country was adding jobs at the slowest pace in eight years (Rankin, 2001). There had been a series of mass layoff announcements in Illinois including one by Motorola, Inc., announcement that about 2,500 workers would lose their jobs when cellular phone production ceased at its Harvard plant (ICCB, March 2001). The state's unemployment rate had risen slightly from 4.7 percent in December to 4.8 percent (seasonably adjusted) in January. This coincides with the increase in Illinois mass layoffs from 70 in November to 157 in December of 2000 (IDES, <http://lmi.ides.state.il.us/mls/mlsweek.htm>). Nationally, manufacturing and technology were among the hardest hit fields. According to a national survey of 300 companies produced by the National Association of Manufacturers, 56 percent of manufacturers had low expectations for the economy in 2001 (ICCB, March 2001).

Occupational completers from fiscal year 2000 compare favorably with graduates from the same programs surveyed five years earlier. Graduates from these programs provide valuable information and perspectives regarding their college and work-related experience, offering community colleges a data source to assist them in identifying areas in which to target program improvement initiatives or a need to move in other directions.

Acceptable levels of response are required to capture a broad representative cross-section of respondents and to ensure that reliable information is obtained for follow-up analyses. The statewide 2000 graduate follow-up response rate (60.4 percent) is about the same as the rate achieved with 1995 graduates (60.3 percent). Survey researchers recognize these rates as quite good. At the same time, higher response rates are desired. Current results indicate that colleges have responded in a positive manner to Illinois Community College Board requests to put further effort and resources into the collection of the annual occupational follow-up data. Historically, state-level response rates have varied from 40.2 percent to the 60.4 percent achieved this year. There were only two colleges with occupational follow-up study response rates below recommended levels and they are asked to put forth additional effort to increase response rates for the coming year (Table A-1).

It is anticipated that colleges will continue their efforts to attain higher response rates due to the need to achieve high rates for the Illinois Community College System's Performance-Based Incentive System (PBIS). Data gathered through the *Occupational Graduate Follow-up Survey* play an important role in the performance-based initiative. A portion of state funding is allocated to community college districts based upon points earned for performance in specified areas. Quality of instruction and support services as measured by student satisfaction is one of seven statewide goal measures for which points are earned. From the occupational follow-up study data, the percentage of students who are somewhat or very satisfied with courses in the student's major program of study, courses outside the student's major program of study, and student support programs and services are evaluated and scored. Since graduate response rates must be strong for meaningful evaluation, *minimum response rates have been set: a 50 percent response rate must be achieved by those colleges surveying 30 or more graduates, a 60 percent rate is required for those institutions contacting less than 30 graduates.* Points are deducted from a district's PBIS score if minimum rates are not met. The Illinois community colleges have endorsed this initiative as a practical and effective way of rewarding educational improvement. During the coming year a group of system



representatives will be brought together to review the initial five-year PBIS cycle. The group will examine progress to date and assess if system enhancements are needed.

Three program areas combined to account for nearly three-quarters of the respondents: Business Information and Data Processing Services (45.3 percent), Law Enforcement/Police Science (19.1 percent), and Electrical and Electronic Engineering-Related Technology (8.0 percent). Graduates from the remaining program areas combined accounted for 27.6 percent of the respondents. Sixteen programs were eliminated from the statewide analysis due to a low number of responses or a small number of graduates. Statewide results follow:

- ▶ 92.1 percent were employed or pursuing additional education or both (Table B-1).
- ▶ 86.1 of the occupational completers were employed (Table B-2).
- ▶ 86.7 percent held full-time status in their current jobs (Table B-2).
- ▶ 74.3 percent were employed in positions related to the field in which they studied at the community college (Table B-5).
- ▶ 74.7 percent obtained their current positions while enrolled or after graduating (Table B-7).
- ▶ 92.6 percent were employed in Illinois. Of those, more than two-thirds remained in the district in which they received their training (Table B-8).
- ▶ The average salary was \$15.63 per hour, slightly more than three times the minimum wage at the time (\$5.15 per hour) (Table B-9.)

Graduates from similar program areas were surveyed five years ago. Generally, more recent graduates (fiscal year 2000) exhibited slightly more positive results than the 1995 completers.

- ▶ The unemployment rate (those graduates who were not employed but actively seeking employment) was at 6.7 percent. This rate compares favorably with that reported for the similar group of graduates in 1995 (7.6 percent).
- ▶ Nearly 64 percent of the current graduates were working in the community college district in which they received their training, thereby contributing to the local economy. Results were up 4.6 percent from 1995.
- ▶ In the five-year period, the percentage of employed graduates obtaining full-time jobs decreased by a minimal rate (.2 percent).
- ▶ The percentage of employed graduates who were working in training-related jobs increased 7.2 percent from 1995 (67.1 percent) to 2000 (74.3 percent).
- ▶ Job satisfaction reported by the graduates employed in a related field increased slightly from 4.15/5.00 in 1995 to 4.19/5.00 in 2000.

- ▶ Graduates rated their satisfaction with the major program components higher (4.18/4.00 in 2000 compared to 4.08/5.00 in 1995) than their peers did five years earlier.
- ▶ College services earned virtually the same scores from the latest group of graduates surveyed, as those in 1995 (4.10/5.00 in 2000 and 4.09/5.00 in 1995).
- ▶ The average hourly wage of \$15.63/hour increased \$3.22 from five years ago for all workers. This substantial increase may be due to a larger percentage of recent graduates beginning employment prior to program entrance or during program enrollment (59.0 percent for 2000 and 55.5 percent for 1995). In addition, a higher percentage of recent graduates completed programs that typically lead to higher paying jobs. For both time frames, graduates from the programs of Electrician, Electromechanical Instrumentation and Maintenance Technology, and Business Computer Programming received higher wages than most other graduates from other programs. More than 36 percent of recent completers who found jobs graduated from one of the three programs mentioned, compared to 31.9 percent in 1995.
- ▶ Over one out of four (25.7 percent) of graduates employed were working in a field unrelated to their training. In addition approximately 28.1 percent (N=98) of these graduates reported that they could not find jobs that were related to their programs of training (down from 31.4 percent in 1995) (Table B-6).

In every field of study, at least some individuals who prepare for a particular occupation end up working in another. Reasons vary. Just over one-fourth of employed graduates working in unrelated positions reported that they could not find a job in their field of preparation. Sixteen percent (N=56) indicated that they took an unrelated job for reasons other than those options listed in the survey form. Only 8.5 percent (N=30) stated simply that they preferred to work in another field. To pinpoint specific program area concerns for selected programs, reasons cited were further examined by employment.

Programs which exhibited higher than average rates of graduates employed in a field different than the one they were trained included: Law Enforcement (32.7 percent, N = 89); Electrical/Electronic Communications Engineering Technology (32.5 percent, N = 27); Computer Installer/Repairer (40.0 percent, N = 14); Business Computer Programming (26.9 percent, N = 115); Business System Networking (26.2 percent, N = 33) and Business Computer Operator (40.0 percent, N = 4). Among Law Enforcement/Police Science completers not working in a related field, 18 percent (N = 16) indicated that they could not find a job in their field of preparation. An additional one-third of the Law Enforcement graduates – a relatively large percentage – indicated that they were in a temporary job while in transition. Graduates from the field of Electrical, Electronic and Communications Engineering Technology had a high rate of employment in an unrelated field (32.5 percent, N = 27). Twenty-two percent of the Electrical, Electronic and Communications Engineering Technology graduates working in unrelated fields indicated that they could not find a job in their field. One-third of those working in another field said that they were able to find a better paying job in another field, despite the fact that completers in this field working full-time had an average salary of \$18.79/hour. Only 7.4 percent of Electrical, Electronic and Communications Engineering Technology graduates were working in a temporary job while in transition.

The unemployment rate for community college graduates was 6.7 percent. This rate exceeds the spring 2001 unemployment rate in Illinois of 5.4 percent (seasonally adjusted) which provides contextual information. These two figures are not directly comparable since the array of community college programs surveyed for the study does not mirror the entire labor market. *Those programs which also have over 30 graduates in the statewide study and elevated unemployment rates should be examined through college program review processes to determine if program improvement initiatives are necessary: Business Computer Programming/Programmer (10.5 percent, N = 56 unemployed and seeking) and Business Systems Networking and Telecommunications (7.4 percent, N = 11 unemployed and seeking). These two programs account for a total of 482 graduates out of 1,647 respondents. Additional programs with more than 30 graduates and unemployment rates above the 6.7 percent average Medical Transcription (N = 5); Industrial Electronics Installer/Repairer (N = 4); and Computer Installer/Repairer (N = 3).*

Overall results indicate that 13.3 percent of workers were in part-time positions. Five programs with more than 30 graduates statewide exceeded this percentage: Paralegal/Legal Assistant, Computer Installer and Repairer, Medical Records Technology/Technician, Medical Transcription, and Business Computer Programming/Programmer. Generally, part-time employment is common in these fields.

Overall, average graduate earnings for all workers were substantial at \$15.63/ hour which is 3.03 times minimum wage (currently \$5.15 per hour). Graduates from programs with individuals in full-time positions earning entry-level salaries that were less than twice minimum wage (\$10.30/hour) included: Radio and Television Broadcasting \$7.79/hour (1.51 times minimum wage) and Business Computer Facilities Operator \$8.11/hour (1.57 times minimum wage). Colleges with programs leading to occupations with relatively low initial earnings should make students aware of the compensation available in these fields both short- and long-term. Radio and Television Broadcasting graduates ( $\bar{M} = 4.29$ ) working in the field reported high satisfaction levels. On the other hand, Business Computer Facilities Operator ( $\bar{M} = 2.40$ ) graduates employed in the field reported low levels of satisfaction with their jobs.

Almost 37 percent of employed graduates took jobs outside of the community college district in which they received their training. Although this rate is fairly high, it has decreased from 40.1 percent since 1995. Overall, program satisfaction was rated highly ( $\bar{M} = 3.89/5.00$ ) in 1995 and even higher in 2000 ( $\bar{M} = 4.18/5.00$ ), the ratings supplied for labor market employment information consistently fell below the scores for all other program areas. Hence, the labor market information ratings for programs with 30 or more graduates in which there was a high incidence (Over 40 percent) of employment outside of the community college district were reviewed to discover if there was a correlation. Data indicate that the satisfaction scores for two of the four programs, Medical Records Technology ( $\bar{M} = 4.33$ ) and Paralegal/Legal Assistant ( $\bar{M} = 4.33$ ) were *higher than the average for all programs in the study*. Electrical, Electronic and Communications Engineering Technology graduates were about the same ( $\bar{M} = 4.17$ ) as the state average in their ratings of the labor market employment information they received. Industrial Electronics Installer and Repairer program graduates ( $\bar{M} = 4.11$ ) rated the labor market employment information component *only slightly lower than the overall score*. Electrical, Electronic and Communications Engineering Technology graduates ( $\bar{M} = 4.17$ ) were *about the same* as the state average in their ratings of the labor market employment information they received.

The outcomes from a further review of the larger programs (30+ graduates) that have a high incidence of out-of-district employment, including student residency, job relatedness, average salaries, and satisfaction with the colleges' labor market employment information, do not give rise to concern about the quality of the programs. Only a small proportion of the employed graduates who were working outside of the district were originally residing outside of the district boundaries. Most of the workers who had taken jobs out-of-district had done so to work in a training-related job. Salaries for unrelated, as well as related, positions were higher outside of the district. The workers examined in this portion of the study were not dissatisfied with the quality of labor market employment information provided to them during their training; therefore, one could deduct that they were adequately informed about job opportunities and salary expectations. These results come together to substantiate the fact that many workers in the labor force will migrate towards those jobs that provide the best compensation. The mobility of our society supports such career decisions.

Community colleges exist to help individuals gain knowledge and skills that allow them to move forward and achieve their goals. The employer community considers education and training an important investment in the development of human capital.

To be successful in today's ever shifting, always competitive market, people count for more – they can make or break the best business strategy; be the driver or brake in adopting new technologies. People are not an implementation issue, nor just an operational or strategic asset. People are the raw resource around which business success revolves. Chris Matthews, CEO, The Hay Group, Management Consulting

A well-educated and highly trained workforce can make an important difference for organizations and contribute to businesses gaining a competitive advantage in the marketplace. Community colleges are a uniquely American phenomena developed to expand affordable higher education access. In recent years, community colleges have enjoyed greater recognition and visibility from external audiences for their role in providing skill building programs. For example, Jim Adams the Chairman of Texas Instruments notes that, "The community college system is an absolutely imperative part of the fabric of education in this country. It's the thing that helps us be competitive leaders in the world, and corporations like Texas Instruments have to retain competitive leadership throughout the U.S., throughout the world." (<http://www.aacc.nche.edu/allaboutcc/peopletalking.htm>). As Illinois and the nation face the new challenges in these changing economic times, community colleges look forward to partnering with workforce preparation partners to meet the education and training needs of the new millennium.

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Appendix A

**OCCUPATIONAL FOLLOW-UP STUDY OVERVIEW TABLES  
FOR SELECTED OCCUPATIONAL PROGRAMS**

Table A-1

OCCUPATIONAL FOLLOW-UP SUMMARY BY COLLEGE  
FOR SELECTED PROGRAMS

Dist. No.	District/College	Number Programs Surveyed*	Number Surveyed*	Number Responding	Percent Responding	Percent Employed or Cont Ed	Percent Employed	Percent Continuing Education	Satisfaction with Program**
503	Black Hawk	7	24	15	62.5	93.3	86.7	40.0	3.7
508	Chicago	(43)	(322)	(179)	(55.6)	(86.9)	(79.7)	(37.4)	(4.1)
	Daley	8	112	59	52.7	88.5	81.5	50.9	4.2
	Kennedy-King	8	62	31	50.0	76.5	52.9	29.4	4.0
	Malcolm X	2	8	6	75.0	100.0	100.0	20.0	4.4
	Olive-Harvey	5	39	20	51.3	87.5	87.5	12.5	4.5
	Truman	9	38	19	50.0	93.3	87.5	33.3	3.4
	Washington	5	29	17	63.0	92.9	85.7	42.9	4.4
	Wright	5	32	26	81.3	72.7	72.7	27.3	4.1
507	Danville	6	33	22	66.7	86.4	86.4	18.2	4.0
502	DuPage	30	292	148	50.7	87.2	77.0	37.2	4.2
509	Elgin	9	55	31	56.4	83.9	77.4	32.3	4.2
512	Harper	15	165	114	69.1	92.7	89.2	20.4	4.3
540	Heartland	5	29	19	65.5	100.0	100.0	21.1	4.3
519	Highland	2	5	3	60.0	100.0	100.0	0.0	3.4
514	Illinois Central	12	137	81	59.1	100.0	93.8	28.7	3.9
529	Illinois Eastern	(11)	(77)	(60)	(77.9)	(94.9)	(90.0)	(32.2)	(4.2)
	Frontier	2	3	3	100.0	100.0	100.0	66.7	3.9
	Lincoln Trail	4	52	39	75.0	92.1	92.3	18.4	4.3
	Olney Central	3	11	7	63.6	100.0	100.0	71.4	4.4
	Wabash Valley	2	11	11	100.0	100.0	72.7	45.5	4.1
513	Illinois Valley	7	25	15	60.0	93.3	93.3	0.0	4.1
525	Joliet	13	89	25	28.1	95.8	91.7	40.0	4.0
520	Kankakee	7	52	31	59.6	93.5	93.5	16.1	4.2
501	Kaskaskia	5	39	27	69.2	100.0	100.0	32.0	4.2
523	Kishwaukee	5	11	8	72.7	100.0	100.0	0.0	4.3
532	Lake County	21	88	59	67.0	91.5	88.1	37.3	4.2
517	Lake Land	10	61	33	54.1	90.6	90.6	12.1	4.2
536	Lewis & Clark	14	61	54	88.5	92.6	81.5	77.8	4.3
526	Lincoln Land	14	105	63	60.0	90.5	88.9	25.4	4.2
530	Logan	8	61	37	60.7	94.4	51.4	41.7	4.6
528	McHenry	8	30	18	60.0	94.4	88.9	27.8	4.3
524	Moraine Valley	10	105	62	59.0	95.0	85.5	40.0	4.4
527	Morton	6	34	18	52.9	88.9	88.9	5.6	4.1
535	Oakton	23	107	62	57.9	91.9	90.3	25.8	4.1
505	Parkland	19	81	60	74.1	86.7	76.7	20.0	3.9
515	Prairie State	10	51	35	68.6	77.1	74.3	14.3	4.1
521	Rend Lake	5	19	12	63.2	91.7	91.7	58.3	4.2
537	Richland	6	22	18	81.8	94.4	94.4	27.8	4.3
511	Rock Valley	11	56	36	64.3	100.0	94.4	11.1	4.5
518	Sandburg	3	18	11	61.1	100.0	90.9	18.2	3.9
506	Sauk Valley	9	25	20	80.0	95.0	85.0	25.0	3.9
531	Shawnee	7	16	2	12.5	100.0	100.0	50.0	3.7
510	South Suburban	11	69	47	68.1	91.3	87.2	30.4	4.1
533	Southeastern	6	20	16	80.0	100.0	93.8	43.8	4.5
522	Southwestern	16	201	121	60.2	97.5	95.0	19.0	4.3
534	Spoon River	3	9	6	66.7	83.3	66.7	33.3	3.9
504	Triton	18	77	41	53.2	85.4	82.9	24.4	4.1
516	Waubonsee	12	42	29	69.0	96.6	93.1	37.9	4.2
539	Wood	5	14	10	71.4	90.0	90.0	10.0	3.7
TOTALS		431	2,725	1,647	60.4%	92.1	86.2	29.5	4.2

SOURCE OF DATA: Fiscal Year 2001 Occupational Follow-up Study Data

\*Selected programs reviewed in report only, excludes correctional students.

\*\* Based on a scale of 1-5; 1 - Very Dissatisfied, 5 - Very Satisfied.

Illinois Community College Board

Table A-2

OCCUPATIONAL FOLLOW-UP RESPONSE RATES BY PROGRAM

CIP	Title	Number of Respondents	Number of Non-respondents	Number of Completers Surveyed*	Response Rate
090401	JOURNALISM AND MASS COMMUNICATIONS	4	0	4	100.0
090701	RADIO AND TELEVISION BROADCASTING	18	4	22	81.8
1001	COMMUNICATIONS TECHNOLOGIES	10	6	16	62.5
100101	Educational/Instructional Media Technology/Technician	2	2	4	50.0
100104	Radio and Television Broadcasting Technology/Technician	8	4	12	66.7
1503	ELECTRICAL AND ELECTRONIC ENGINEERING-RELATED TECHN	131	87	218	60.1
150301	Computer Engineering Technology/Technician	8	3	11	72.7
150303	Electrical, Electronic and Communications Engineering Technology/Te	105	75	180	58.3
150310	Telecommunication Electronics technology	18	9	27	66.7
1504	ELECTROMECHANICAL INSTRUMENTATION AND MAINTENANC	68	43	111	61.3
150401	Biomedical Engineering-Related Technology/Technician	4	1	5	80.0
150402	Computer Maintenance Technology/Technician	25	20	45	55.6
150403	Electromechanical Technology/Technician	3	0	3	100.0
150404	Instrumentation Technology/Technician	3	1	4	75.0
150405	Robotics Technology/Technician	14	6	20	70.0
150410	Fluid Power Technology	2	1	3	66.7
150411	Automated Manufacturing Technology	17	14	31	54.8
2003	CLOTHING, APPAREL AND TEXTILES WORKERS AND MANAGER	7	7	14	50.0
200306	Fashion and Fabric Consultant	7	7	14	50.0
2201	LAW AND LEGAL STUDIES	80	38	118	67.8
220103	Paralegal/Legal Assistant	80	38	118	67.8
4301	CRIMINAL JUSTICE AND CORRECTIONS	319	234	553	57.7
430102	Corrections/Correctional Administration	3	3	6	50.0
430107	Law Enforcement/Police Science	315	228	543	58.0
430109	Security and Loss Prevention Services	1	2	3	33.3
430199	Criminal Justice and Corrections, Other	0	1	1	0.0
4603	ELECTRICAL AND POWER TRANSMISSION INSTALLERS	49	30	79	62.0
460302	Electrician	49	30	79	62.0
4701	ELECTRICAL AND ELECTRONICS EQUIPMENT INSTALLERS AND	128	95	223	57.4
470101	Electrical and Electronics Equipment Installer and Repairer, General	6	13	19	31.6
470103	Communications Systems Installer and Repairer	18	6	24	75.0
470104	Computer Installer and Repairer	40	27	67	59.7
470105	Industrial Electronics Installer and Repairer	57	44	101	56.4
470106	Major Appliance Installer and Repairer	7	5	12	58.3
5107	HEALTH AND MEDICAL ADMINISTRATIVE SERVICES	113	51	164	68.9
510702	Hospital/Health Facilities Administration	3	1	4	75.0
510703	Health Unit Coordinator/Ward Clerk	1	0	1	100.0
510705	Medical Office Management	8	2	10	80.0
510707	Medical Records Technology/Technician	45	17	62	72.6
510708	Medical Transcription	56	31	87	64.4
5212	BUSINESS INFORMATION AND DATA PROCESSING SERVICES	746	498	1,244	60.0
521201	Management Information Systems and Business Data Processing, Gene	9	4	13	69.2
521202	Business Computer Programming/Programmer	562	392	954	58.9
521203	Business Systems Analysis and Design	11	4	15	73.3
521204	Business Systems Networking and Telecommunications	150	93	243	61.7
521205	Business Computer Facilities Operator	14	5	19	73.7
Total Statewide Report		1,647	1,078	2,725	60.4
Total Surveyed		1,673	1,093	2,766	60.5

\*Correctional & deceased students are not included in these totals.

SOURCE OF DATA: Fiscal Year 2001 Occupational Follow-Up Study.

Appendix B

**STATEWIDE OCCUPATIONAL FOLLOW-UP STUDY TABLES  
FOR SELECTED OCCUPATIONAL PROGRAMS BY  
CLASSIFICATION OF INSTRUCTIONAL PROGRAM CODE**



Table B-1

EMPLOYMENT AND EDUCATION STATUS OF PROGRAM COMPLETERS  
IN SELECTED OCCUPATIONAL PROGRAMS

CIP	PROGRAM	EMPLOYED AND NOT PURSUING ADDITIONAL EDUCATION		PURSUING ADDITIONAL EDUCATION AND NOT EMPLOYED		EMPLOYED AND PURSUING ADDITIONAL EDUCATION		TOTAL GRADUATES EMPLOYED OR PURSUING ADDITIONAL EDUCATION OR BOTH		TOTAL NUMBER RESPONDING
		NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	
090701	RADIO AND TELEVISION BROADCASTING	5	45.5	1	9.1			5	45.5	13
1001	COMMUNICATIONS TECHNOLOGIES**	6	60.0	0	0.0	4	40.0	10	100.0	10
1503	ELECTRICAL AND ELECTRONIC ENGINEERING-RELATED TECHNOLOGY	76	63.3	11	9.2	33	27.5	120	93.0	129
150301	Computer Engineering Technology/Technician	1	12.5	0	0.0	7	87.5	8	47.1	17
150303	Electrical, Electronic and Communications Engineering Technology/Technician	57	60.6	11	11.7	26	27.7	94	100.0	94
150310	Telecommunication/Electronics technology	18	100.0	0	0.0	0	0.0	18	100.0	18
1504	ELECTROMECHANICAL INSTRUMENTATION AND MAINTENANCE TECHNOLOGY	32	61.5	8	15.4	12	23.1	52	96.3	54
150402	Computer Maintenance Technology/Technician	11	52.4	4	19.0	6	28.6	21	91.3	23
150405	Robotics Technology/Technician	10	71.4	1	7.1	3	21.4	14	100.0	14
150411	Automated Manufacturing Technology	11	64.7	3	17.6	3	17.6	17	100.0	17
200306	FASHION AND FABRIC CONSULTANT	2	40.0	1	20.0	2	40.0	5	71.4	7
220103	PARALEGAL/LEGAL ASSISTANT	61	79.2	2	2.6	14	18.2	77	97.5	79
430107	LAW ENFORCEMENT/POLICE SCIENCE	194	65.8	17	5.8	84	28.5	295	96.7	305
460302	ELECTRICIAN	44	95.7	0	0.0	2	4.3	46	93.9	49
4701	ELECTRICAL AND ELECTRONICS EQUIPMENT INSTALLERS AND REPAIRER	79	66.9	2	1.7	37	31.4	118	93.7	126
470101	Electrical and Electronics Equipment Installer and Repairer, General	5	83.3	0	0.0	1	16.7	6	100.0	6
470103	Communications Systems Installer and Repairer	8	47.1	1	5.9	8	47.1	17	94.4	18
470104	Computer Installer and Repairer	23	65.7	0	0.0	12	34.3	35	89.7	39
470105	Industrial Electronics Installer and Repairer	37	68.5	1	1.9	16	29.6	54	94.7	57
470106	Major Appliance Installer and Repairer	6	100.0	0	0.0	0	0.0	6	100.0	6
5107	HEALTH AND MEDICAL ADMINISTRATIVE SERVICES	76	76.8	1	1.0	22	22.2	99	92.5	107
510705	Medical Office Management	1	14.3	1	14.3	5	71.4	7	87.5	8
510707	Medical Records Technology/Technician	35	83.3	0	0.0	7	16.7	42	95.5	44
510708	Medical Transcription	40	80.0	0	0.0	10	20.0	50	90.9	55
5212	BUSINESS INFORMATION AND DATA PROCESSING SERVICES	417	66.4	49	7.8	162	25.8	628	88.7	708
521201	Management Information Systems and Business Data Processing, General	7	87.5	1	12.5	0	0.0	8	88.9	9
521202	Business Computer Programming/Programmer	302	64.9	40	8.6	123	26.5	465	88.1	528
521203	Business Systems Analysis and Design	6	75.0	0	0.0	2	25.0	8	80.0	10
521204	Business Systems Networking and Telecommunications	95	69.9	7	5.1	34	25.0	136	92.5	147
521205	Business Computer Facilities Operator	7	63.6	1	9.1	3	27.3	11	78.6	14
	Associate Degree	593	68.2	52	6.0	224	25.8	869	93.8	926
	Advanced Certificate (30 hours or more)	150	72.8	10	4.9	46	22.3	206	92.0	224
	Basic Certificate (Less than 30 hours)	249	64.5	30	7.8	107	27.7	386	88.7	435
	REPORT TOTAL	992	67.9	92	6.3	377	25.8	1,461	92.1	1587

\*Correctional & deceased students are not included in these totals

\*\* Includes 100101 - Educational/Instructional Media Technology/Technician and 100104 - Radio and Television Broadcasting Technology/Technician

SOURCE OF DATA: ICCB Occupational Follow-Up Study - Fiscal Year 2001

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Table B-2

EMPLOYMENT PATTERNS OF PROGRAM COMPLETERS  
IN SELECTED OCCUPATIONAL PROGRAMS

CIP	PROGRAM	EMPLOYED FULL-TIME		EMPLOYED PART-TIME		UNEMPLOYED SEEKING EMPLOYMENT		UNEMPLOYED NOT SEEKING EMPLOYMENT		TOTAL RESPONDING		TOTAL EMPLOYED	
		NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
090701	RADIO AND TELEVISION BROADCASTING	9	90.0	1	10.0	1	7.7	2	15.4	13	10	76.9	100.0
1001	COMMUNICATIONS TECHNOLOGIES**	6	60.0	4	40.0	0	0.0	0	0.0	10	10	100.0	100.0
1503	ELECTRICAL AND ELECTRONIC ENGINEERING-RELATED TECHNOLOGY	102	93.6	7	6.4	6	4.7	14	10.9	129	109	84.5	100.0
150301	Computer Engineering Technology/Technician	5	62.5	3	37.5	0	0.0	0	0.0	8	8	100.0	100.0
150303	Electrical, Electronic and Communications Engineering Technology/Technician	79	95.2	4	4.8	6	5.8	14	13.6	103	83	80.6	100.0
150310	Telecommunication Electronics technology	18	100.0	0	0.0	0	0.0	0	0.0	18	18	100.0	100.0
1504	ELECTROMECHANICAL INSTRUMENTATION AND MAINTENANCE TECHNOLOGY	39	88.6	5	11.4	1	1.9	9	16.7	54	44	81.5	100.0
150402	Computer Maintenance Technology/Technician	14	82.4	3	17.6	1	4.3	5	21.7	23	17	73.9	100.0
150405	Robotics Technology/Technician	12	92.3	1	7.7	0	0.0	1	7.1	14	13	92.9	100.0
150411	Automated Manufacturing Technology	13	92.9	1	7.1	0	0.0	3	17.6	17	14	82.4	100.0
200306	FASHION AND FABRIC CONSULTANT	3	75.0	1	25.0	2	28.6	1	14.3	7	4	57.1	100.0
220103	PARALEGAL/LEGAL ASSISTANT	64	85.3	11	14.7	2	2.5	2	2.5	79	75	94.9	100.0
430107	LAW ENFORCEMENT/POLICE SCIENCE	243	88.4	32	11.6	12	4.0	15	5.0	302	275	91.1	100.0
460302	ELECTRICIAN	46	100.0	0	0.0	1	2.0	2	4.1	49	46	93.9	100.0
4701	ELECTRICAL AND ELECTRONICS EQUIPMENT INSTALLERS AND REPAIRER	103	89.6	12	10.4	7	5.6	3	2.4	125	115	92.0	100.0
470101	Electrical and Electronics Equipment Installer and Repairer, General	5	83.3	1	16.7	0	0.0	0	0.0	6	6	100.0	100.0
470103	Communications Systems Installer and Repairer	16	100.0	0	0.0	0	0.0	2	11.1	18	16	88.9	100.0
470104	Computer Installer and Repairer	27	77.1	8	22.9	3	7.7	1	2.6	39	35	89.7	100.0
470105	Industrial Electronics Installer and Repairer	51	98.1	1	1.9	4	7.1	0	0.0	56	52	92.9	100.0
470106	Major Appliance Installer and Repairer	4	66.7	2	33.3	0	0.0	0	0.0	6	6	100.0	100.0
5107	HEALTH AND MEDICAL ADMINISTRATIVE SERVICES	70	72.2	27	27.8	5	4.7	4	3.8	106	97	91.5	100.0
510705	Medical Office Management	5	83.3	1	16.7	0	0.0	2	25.0	8	6	75.0	100.0
510707	Medical Records Technology/Technician	35	83.3	7	16.7	0	0.0	2	4.5	44	42	95.5	100.0
510708	Medical Transcription	30	61.2	19	38.8	5	9.3	0	0.0	54	49	90.7	100.0
5212	BUSINESS INFORMATION AND DATA PROCESSING SERVICES	503	86.0	82	14.0	70	9.8	62	8.6	717	585	81.6	100.0
521201	Management Information Systems and Business Data Processing, General	5	71.4	2	28.6	0	0.0	2	22.2	9	7	77.8	100.0
521202	Business Computer Programming/Programmer	367*	85.5	62	14.5	56	10.5	49	9.2	534	429	80.3	100.0
521203	Business Systems Analysis and Design	7	77.8	2	22.2	0	0.0	2	18.2	11	9	81.8	100.0
521204	Business Systems Networking and Telecommunications	115	88.5	15	11.5	11	7.4	8	5.4	149	130	87.2	100.0
521205	Business Computer Facilities Operator	9	90.0	1	10.0	3	21.4	1	7.1	14	10	71.4	100.0
	Associate Degree	711	87.2	104	12.8	51	5.5	62	6.7	928	815	87.8	100.0
	Advanced Certificate (30 hours or more)	161	82.1	35	17.9	13	5.8	16	7.1	225	196	87.1	100.0
	Basic Certificate (Less than 30 hours)	316	88.0	43	12.0	43	9.8	36	8.2	438	359	82.0	100.0
	REPORT TOTAL	1188	86.7	182	13.3	107	6.7	114	7.2	1591	1370	86.1	100.0

\*Correctional & deceased students are not included in these totals

\*\* Includes 100101 - Educational/Instructional Media Technology/Technician and 100104 - Radio and Television Broadcasting Technology/Technician

SOURCE OF DATA: ICCB Occupational Follow-Up Study - Fiscal Year 2001

Table B-3

GRADUATES SIMULTANEOUSLY EMPLOYED AND PURSUING ADDITIONAL EDUCATION  
IN SELECTED OCCUPATIONAL PROGRAMS

CIP	PROGRAM	EMPLOYED AND PURSUING ADDITIONAL EDUCATION IN A RELATED FIELD		EMPLOYED AND PURSUING ADDITIONAL EDUCATION IN AN UNRELATED FIELD		TOTAL GRADUATES EMPLOYED AND PURSUING ADDITIONAL EDUCATION		TOTAL GRADUATES RESPONDING NUMBER
		NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	
090701	RADIO AND TELEVISION BROADCASTING	0	0.0	5	100.0	5	38.5	13
1001	COMMUNICATIONS TECHNOLOGIES**	4	100.0	0	0.0	4	40.0	10
1503	ELECTRICAL AND ELECTRONIC ENGINEERING-RELATED TECHNOLOGY	24	72.7	9	27.3	33	25.6	129
150301	Computer Engineering Technology/Technician	6	85.7	1	14.3	7	87.5	8
150303	Electrical, Electronic and Communications Engineering Technology/Technician	18	69.2	8	30.8	26	25.2	103
150310	Telecommunication Electronics technology	0	0.0	0	0.0	0	0.0	18
1504	ELECTROMECHANICAL INSTRUMENTATION AND MAINTENANCE TECHNOLOGY	8	66.7	4	33.3	12	22.2	54
150402	Computer Maintenance Technology/Technician	5	83.3	1	16.7	6	26.1	23
150405	Robotics Technology/Technician	1	33.3	2	66.7	3	21.4	14
150411	Automated Manufacturing Technology	2	66.7	1	33.3	3	17.6	17
200306	FASHION AND FABRIC CONSULTANT	0	0.0	2	100.0	2	28.6	7
220103	PARALEGAL/LEGAL ASSISTANT	10	71.4	4	28.6	14	17.7	79
430107	LAW ENFORCEMENT/POLICE SCIENCE	64	76.2	20	23.8	84	27.5	305
460302	ELECTRICIAN	1	50.0	1	50.0	2	4.1	49
4701	ELECTRICAL AND ELECTRONICS EQUIPMENT INSTALLERS AND REPAIRER	26	70.3	11	29.7	37	29.4	126
470101	Electrical and Electronics Equipment Installer and Repairer, General	1	100.0	0	0.0	1	16.7	6
470103	Communications Systems Installer and Repairer	5	62.5	3	37.5	8	44.4	18
470104	Computer Installer and Repairer	8	66.7	4	33.3	12	30.8	39
470105	Industrial Electronics Installer and Repairer	12	75.0	4	25.0	16	28.1	57
470106	Major Appliance Installer and Repairer	0	0.0	0	0.0	0	0.0	6
5107	HEALTH AND MEDICAL ADMINISTRATIVE SERVICES	15	68.2	7	31.8	22	20.6	107
510705	Medical Office Management	4	80.0	1	20.0	5	62.5	8
510707	Medical Records Technology/Technician	6	85.7	1	14.3	7	15.9	44
510708	Medical Transcription	5	50.0	5	50.0	10	18.2	55
5212	BUSINESS INFORMATION AND DATA PROCESSING SERVICES	135	83.3	27	16.7	162	22.9	708
521201	Management Information Systems and Business Data Processing, General	0	0.0	0	0.0	0	0.0	9
521202	Business Computer Programming/Programmer	101	82.1	22	17.9	123	23.3	528
521203	Business Systems Analysis and Design	2	100.0	0	0.0	2	20.0	10
521204	Business Systems Networking and Telecommunications	29	85.3	5	14.7	34	23.1	147
521205	Business Computer Facilities Operator	3	100.0	0	0.0	3	21.4	14
	Associate Degree	168	75.0	56	25.0	224	24.1	928
	Advanced Certificate (30 hours or more)	33	71.7	13	28.3	46	20.5	224
	Basic Certificate (Less than 30 hours)	86	80.4	21	19.6	107	24.6	435
	REPORT TOTAL	287	76.1	90	23.9	377	23.8	1,587

\*Correctional & deceased students are not included in these totals

\*\* Includes 100101 - Educational/Instructional Media Technology/Technician and 100104 - Radio and Television Broadcasting Technology/Technician

Follow-up Study of Fiscal Year 2000  
Occupational Program Graduates

Illinois Community College Board

Table B-4

EDUCATIONAL STATUS OF GRADUATES  
FROM SELECTED OCCUPATIONAL PROGRAMS

CIP	PROGRAM	NO FURTHER EDUCATION		PREVIOUSLY PURSUED FURTHER EDUCATION BUT NOT NOW		CURRENTLY ENROLLED IN RELATED PROGRAM		CURRENTLY ENROLLED IN UNRELATED PROGRAM		TOTAL RESPONDING		COMBINED COUNT CURRENTLY ENROLLED IN RELATED AND UNRELATED PROGRAMS	
		NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
090701	RADIO AND TELEVISION BROADCASTING	7	53.8	0	0.0	1	7.7	5	38.5	13	13	6	46.2
1001	COMMUNICATIONS TECHNOLOGIES**	6	60.0	0	0.0	4	40.0	0	0.0	10	10	4	40.0
1503	ELECTRICAL AND ELECTRONIC ENGINEERING-RELATED TECHNOLOGY	81	62.8	4	3.1	35	27.1	9	7.0	129	129	44	34.1
150301	Computer Engineering Technology/Technician	1	12.5	0	0.0	6	75.0	8	12.5	8	8	7	87.5
150303	Electrical, Electronic and Communications Engineering Technology/Technician	62	60.2	4	3.9	29	28.2	8	7.8	103	103	37	35.9
150310	Telecommunication Electronics technology	18	100.0	0	0.0	0	0.0	0	0.0	18	18	0	0.0
1504	ELECTROMECHANICAL INSTRUMENTATION AND MAINTENANCE TECHNOLOGY	29	53.7	5	9.3	15	27.8	5	9.3	54	54	20	37.0
150402	Computer Maintenance Technology/Technician	13	36.5	0	0.0	9	39.1	1	4.3	23	23	10	43.5
150405	Robotics Technology/Technician	10	71.4	0	0.0	1	7.1	3	21.4	14	14	4	28.6
150411	Automated Manufacturing Technology	6	35.3	5	29.4	5	29.4	1	5.9	17	17	6	35.3
200306	FASHION AND FABRIC CONSULTANT	4	57.1	0	0.0	1	14.3	2	28.6	7	7	3	42.9
220103	PARALEGAL/LEGAL ASSISTANT	60	75.0	4	5.0	11	13.8	5	6.3	80	80	16	20.0
430107	LAW ENFORCEMENT/POLICE SCIENCE	175	57.4	29	9.5	78	25.6	23	7.5	305	305	101	33.1
460302	ELECTRICIAN	36	73.5	11	22.4	1	2.0	1	2.0	49	49	2	4.1
4701	ELECTRICAL AND ELECTRONICS EQUIPMENT INSTALLERS AND REPAIRER	83	65.4	4	3.1	28	22.0	12	9.4	127	127	40	31.5
470101	Electrical and Electronics Equipment Installer and Repairer, General	5	83.3	0	0.0	1	16.7	0	0.0	6	6	1	16.7
470103	Communications Systems Installer and Repairer	9	50.0	0	0.0	6	33.3	3	16.7	18	18	9	50.0
470104	Computer Installer and Repairer	24	60.0	3	7.5	9	22.5	4	10.0	40	40	13	32.5
470105	Industrial Electronics Installer and Repairer	39	68.4	1	1.8	12	21.1	5	8.8	57	57	17	29.8
470106	Major Appliance Installer and Repairer	6	100.0	0	0.0	0	0.0	0	0.0	6	6	0	0.0
5107	HEALTH AND MEDICAL ADMINISTRATIVE SERVICES	82	76.6	2	1.9	16	15.0	7	6.5	107	107	23	21.5
510705	Medical Office Management	2	25.0	0	0.0	5	62.5	1	12.5	8	8	6	75.0
510707	Medical Records Technology/Technician	36	81.8	1	2.3	6	13.6	1	2.3	44	44	7	15.9
510708	Medical Transcription	44	80.0	1	1.8	5	9.1	5	9.1	55	55	10	18.2
5212	BUSINESS INFORMATION AND DATA PROCESSING SERVICES	466	65.4	33	4.6	177	24.9	36	5.1	712	712	213	29.9
521201	Management Information Systems and Business Data Processing, General	8	88.9	0	0.0	1	11.1	0	0.0	9	9	1	11.1
521202	Business Computer Programming/Programmer	341	64.1	26	4.9	137	25.8	28	5.3	532	532	165	31.0
521203	Business Systems Analysis and Design	8	80.0	0	0.0	2	20.0	0	0.0	10	10	2	20.0
521204	Business Systems Networking and Telecommunications	99	67.3	7	4.8	33	22.4	8	5.4	147	147	41	27.9
521205	Business Computer Facilities Operator	10	71.4	0	0.0	4	28.6	0	0.0	14	14	4	28.6
614	Associate Degree	614	65.9	41	4.4	210	22.5	67	7.2	932	932	277	29.7
147	Advanced Certificate (30 hours or more)	147	65.6	21	9.4	41	18.3	15	6.7	224	224	56	25.0
268	Basic Certificate (Less than 30 hours)	268	61.3	30	6.9	116	26.5	23	5.3	437	437	139	31.8
REPORT TOTAL		1029	64.6	92	5.8	367	23.0	105	6.6	1593	1593	472	29.6

\*Correctional & deceased students are not included in these totals

\*\* Includes 100101 - Educational/Instructional Media Technology/Technician and 100104 - Radio and Television Broadcasting Technology/Technician

SOURCE OF DATA: ICCB Occupational Follow-Up Study - Fiscal Year 2001

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Illinois Community College Board

Table B-5

RELATEDNESS OF EMPLOYMENT AMONG PROGRAM COMPLETERS  
IN SELECTED OCCUPATIONAL PROGRAMS

CIP	PROGRAM	EMPLOYED FULL-TIME		EMPLOYED PART-TIME		NOT RELATED		COMBINED		TOTAL RESPONDING
		RELATED NUMBER	NOT RELATED NUMBER	RELATED NUMBER	NOT RELATED NUMBER	RELATED NUMBER	NOT RELATED NUMBER	PERCENT	PERCENT	
090701	RADIO AND TELEVISION BROADCASTING	7	2	1	0	8	2	80.0	20.0	10
1001	COMMUNICATIONS TECHNOLOGIES**	5	1	1	2	6	3	66.7	33.3	9
1503	ELECTRICAL AND ELECTRONIC ENGINEERING-RELATED TECHNOLOG	73	29	3	4	76	33	69.7	30.3	109
150301	Computer Engineering Technology/Technician	2	3	2	1	4	4	50.0	50.0	8
150303	Electrical, Electronic and Communications Engineering Technology/Technician	55	24	1	3	56	27	67.5	32.5	83
150310	Telecommunication/Electronics technology	16	2	0	0	16	2	88.9	11.1	18
1504	ELECTROMECHANICAL INSTRUMENTATION AND MAINTENANCE TECHNOLOGY	33	6	3	2	36	8	81.8	18.2	44
150402	Computer Maintenance Technology/Technician	11	3	1	2	12	5	70.6	29.4	17
150405	Robotics Technology/Technician	11	1	1	0	12	1	92.3	7.7	13
150411	Automated Manufacturing Technology	11	2	1	0	12	2	85.7	14.3	14
200306	FASHION AND FABRIC CONSULTANT	0	3	1	0	1	3	25.0	75.0	4
220103	PARALEGAL/LEGAL ASSISTANT	54	10	4	7	58	17	77.3	22.7	75
430107	LAW ENFORCEMENT/POLICE SCIENCE	173	69	10	20	183	89	67.3	32.7	272
460302	ELECTRICIAN	44	2	0	0	44	2	95.7	4.3	46
4701	ELECTRICAL AND ELECTRONICS EQUIPMENT INSTALLERS AND REPA	87	15	3	9	90	24	78.9	21.1	114
470101	Electrical and Electronics Equipment Installer and Repairer, General	4	1	0	1	4	2	66.7	33.3	6
470103	Communications Systems Installer and Repairer	15	1	0	0	15	1	93.8	6.3	16
470104	Computer Installer and Repairer	19	8	2	6	21	14	60.0	40.0	35
470105	Industrial Electronics Installer and Repairer	46	4	0	1	46	5	90.2	9.8	51
470106	Major Appliance Installer and Repairer	3	1	1	1	4	2	66.7	33.3	6
5107	HEALTH AND MEDICAL ADMINISTRATIVE SERVICES	62	7	22	4	84	11	88.4	11.6	95
510705	Medical Office Management	5	0	1	0	6	0	100.0	0.0	6
510707	Medical Records Technology/Technician	34	1	7	0	41	1	97.6	2.4	42
510708	Medical Transcription	23	6	14	4	37	10	78.7	21.3	47
5212	BUSINESS INFORMATION AND DATA PROCESSING SERVICES	375	124	48	33	423	157	72.9	27.1	580
521201	Management Information Systems and Business Data Processing, General	5	0	1	1	6	1	85.7	14.3	7
521202	Business Computer Programming/Programmer	277	89	36	26	313	115	73.1	26.9	428
521203	Business Systems Analysis and Design	4	3	1	1	5	4	55.6	44.4	9
521204	Business Systems Networking and Telecommunications	83	29	10	4	93	33	73.8	26.2	126
521205	Business Computer Facilities Operator	6	3	0	1	6	4	60.0	40.0	10
	Associate Degree	547	158	49	51	596	209	74.0	26.0	805
	Advanced Certificate (30 hours or more)	138	22	23	11	161	33	83.0	17.0	194
	Basic Certificate (Less than 30 hours)	228	88	24	19	252	107	70.2	29.8	359
	REPORT TOTAL	913	268	96	81	1009	349	74.3	25.7	1358

\*Correctional & deceased students are not included in these totals

\*\* Includes 100101 - Educational/Instructional Media Technology/Technician and 100104 - Radio and Television Broadcasting Technology/Technician

SOURCE OF DATA: ICCB Occupational Follow-Up Study - Fiscal Year 2001

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Illinois Community College Board

Table B-6

REASONS WHY PRESENT JOB IS NOT IN RELATED FIELD  
FOR GRADUATES OF SELECTED OCCUPATIONAL PROGRAMS

CIP	PROGRAM	Reason Why Job is not in a Related Field*										Total Employed in Unrelated Field				
		1	2	3	4	5	6	7	8	9	10					
090701	RADIO AND TELEVISION BROADCASTING	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2
1001	COMMUNICATIONS TECHNOLOGIES**	0	2	0	0	0	0	1	0	0	0	0	0	0	0	3
1503	ELECTRICAL AND ELECTRONIC ENGINEERING-RELATED TECHNOLOGY	2	9	7	0	3	4	3	0	0	0	4	1	0	0	33
150301	Computer Engineering Technology/Technician	1	0	1	0	0	1	1	0	0	0	0	0	0	0	4
150303	Electrical, Electronic and Communications Engineering Technology/Technician	1	9	6	0	2	2	2	0	0	0	4	1	0	0	27
150310	Telecommunication Electronics technology	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2
1504	ELECTROMECHANICAL INSTRUMENTATION AND MAINTENANCE TECHNOLOGY	2	0	2	0	0	2	0	0	0	1	1	0	0	0	8
150402	Computer Maintenance Technology/Technician	1	0	1	0	0	2	0	0	0	1	0	0	0	0	5
150405	Robotics Technology/Technician	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
150411	Automated Manufacturing Technology	1	0	0	0	0	0	0	0	0	0	1	0	0	0	2
200306	FASHION AND FABRIC CONSULTANT	0	0	1	0	0	1	0	0	0	0	0	0	0	0	3
220103	PARALEGAL/LEGAL ASSISTANT	2	1	3	0	0	2	3	0	0	0	2	4	0	0	17
430107	LAW ENFORCEMENT/POLICE SCIENCE	5	5	16	3	0	30	4	1	0	0	18	7	0	0	89
460302	ELECTRICIAN	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2
4701	ELECTRICAL AND ELECTRONICS EQUIPMENT INSTALLERS AND REPAIRER	1	3	7	0	0	4	2	2	1	1	1	3	0	0	24
470101	Electrical and Electronics Equipment Installer and Repairer, General	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
470103	Communications Systems Installer and Repairer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
470104	Computer Installer and Repairer	1	1	5	0	0	3	0	1	1	1	1	1	0	0	14
470105	Industrial Electronics Installer and Repairer	0	1	1	0	0	1	1	1	0	0	0	0	0	0	5
470106	Major Appliance Installer and Repairer	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2
5107	HEALTH AND MEDICAL ADMINISTRATIVE SERVICES	1	0	6	0	1	1	0	0	0	0	1	1	0	0	11
510705	Medical Office Management	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
510707	Medical Records Technology/Technician	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
510708	Medical Transcription	1	0	6	0	1	1	0	0	0	0	1	0	0	0	10
5212	BUSINESS INFORMATION AND DATA PROCESSING SERVICES	17	7	55	1	1	18	9	3	0	0	29	17	0	0	157
521201	Management Information Systems and Business Data Processing, General	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
521202	Business Computer Programming/Programmer	14	4	35	1	1	16	7	3	0	0	19	15	0	0	115
521203	Business Systems Analysis and Design	1	0	2	0	0	0	0	0	0	0	1	0	0	0	4
521204	Business Systems Networking and Telecommunications	2	2	17	0	0	2	1	0	0	8	1	1	0	0	33
521205	Business Computer Facilities Operator	0	1	1	0	0	0	1	0	0	0	1	0	0	0	4
	Associate Degree	14	16	52	3	4	48	14	3	1	36	18	0	0	0	209
	Advanced Certificate (30 hours or more)	1	4	11	0	1	4	3	0	0	6	3	0	0	0	33
	Basic Certificate (Less than 30 hours)	15	7	35	1	1	12	5	3	1	14	13	0	0	0	107
	REPORT TOTAL	30	27	98	4	6	64	22	6	2	56	34	0	0	0	349

\* 1 = Preferred to work in another field  
 2 = Found better paying job in another field  
 3 = Could not find job in field of preparation  
 4 = Worked previously in field, but changed  
 5 = Preferred not to move to new locality  
 6 = Temporary job while in transition (in college or summer employment)  
 7 = Took job in order to get preferred working hours  
 8 = Didn't complete program or pass licensing test to be eligible to work in field  
 9 = Health problems prevented me from working in field  
 10 = Other



Table B-7

BEGINNING OF PRESENT POSITION AMONG GRADUATES  
FROM SELECTED OCCUPATIONAL PROGRAMS

CIP	PROGRAM	HAD POSITION PRIOR TO PROGRAM ENTRANCE		BEGAN POSITION DURING PROGRAM ENROLLMENT		BEGAN POSITION AFTER PROGRAM COMPLETION		TOTAL NUMBER RESPONDING
		NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	
090701	RADIO AND TELEVISION BROADCASTING	1	14.3	4	57.1	2	28.6	7
1001	COMMUNICATIONS TECHNOLOGIES**	2	20.0	5	50.0	3	30.0	10
1503	ELECTRICAL AND ELECTRONIC ENGINEERING-RELATED TECHNOLOGY	17	16.7	32	31.4	53	52.0	102
150301	Computer Engineering Technology/Technician	0	0.0	4	57.1	3	42.9	7
150303	Electrical, Electronic, and Communications Engineering Technology/Technician	17	22.1	25	32.5	35	45.5	77
150310	Telecommunication Electronics technology	0	0.0	3	16.7	15	83.3	18
1504	ELECTROMECHANICAL INSTRUMENTATION AND MAINTENANCE TECHNOLOGY	13	31.0	16	38.1	13	31.0	42
150402	Computer Maintenance Technology/Technician	3	20.0	5	33.3	7	46.7	15
150405	Robotics Technology/Technician	4	30.8	4	30.8	5	38.5	13
150411	Automated Manufacturing Technology	6	42.9	7	50.0	1	7.1	14
200306	FASHION AND FABRIC CONSULTANT	0	0.0	2	50.0	2	50.0	4
220103	PARALEGAL/LEGAL ASSISTANT	9	12.0	26	34.7	40	53.3	75
430107	LAW ENFORCEMENT/POLICE SCIENCE	89	33.8	82	31.2	92	35.0	263
460302	ELECTRICIAN	14	30.4	17	37.0	15	32.6	46
4701	ELECTRICAL AND ELECTRONICS EQUIPMENT INSTALLERS AND REPAIRER	44	38.9	30	26.5	39	34.5	113
470101	Electrical and Electronics Equipment Installer and Repairer, General	3	50.0	1	16.7	2	33.3	6
470103	Communications Systems Installer and Repairer	3	18.8	1	6.3	12	75.0	16
470104	Computer Installer and Repairer	12	35.3	11	32.4	11	32.4	34
470105	Industrial Electronics Installer and Repairer	23	45.1	15	29.4	13	25.5	51
470106	Major Appliance Installer and Repairer	3	50.0	2	33.3	1	16.7	6
5107	HEALTH AND MEDICAL ADMINISTRATIVE SERVICES	17	17.5	30	30.9	50	51.5	97
510705	Medical Office Management	2	33.3	1	16.7	3	50.0	6
510707	Medical Records Technology/Technician	6	14.3	10	23.8	26	61.9	42
510708	Medical Transcription	9	18.4	19	38.8	21	42.9	49
5212	BUSINESS INFORMATION AND DATA PROCESSING SERVICES	127	22.9	197	35.6	230	41.5	554
521201	Management Information Systems and Business Data Processing, General	1	16.7	1	16.7	4	66.7	6
521202	Business Computer Programming/Programmer	99	24.0	156	37.9	157	38.1	412
521203	Business Systems Analysis and Design	3	33.3	1	11.1	5	55.6	9
521204	Business Systems Networking and Telecommunications	23	19.3	34	28.6	62	52.1	119
521205	Business Computer Facilities Operator	1	12.5	5	62.5	2	25.0	8
	Associate Degree	162	20.9	271	35.0	341	44.1	774
	Advanced Certificate (30 hours or more)	41	21.6	61	32.1	88	46.3	190
	Basic Certificate (Less than 30 hours)	130	37.2	109	31.2	110	31.5	349
	REPORT TOTAL	333	25.4	441	33.6	539	41.1	1313

\*Correctional & deceased students are not included in these totals

\*\* Includes 100101 - Educational/Instructional Media Technology/Technician and 100104 - Radio and Television Broadcasting Technology/Technician

SOURCE OF DATA: ICCB Occupational Follow-Up Study - Fiscal Year 2001



Illinois Community College Board

Table B-8

LOCATION OF EMPLOYMENT HELD BY GRADUATES  
FROM SELECTED OCCUPATIONAL PROGRAMS

CIP	PROGRAM	IN-DISTRICT		OUT-OF-DISTRICT BUT IN ILLINOIS		OUT-OF-STATE		TOTAL NUMBER RESPONDING
		NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	
09M701	RADIO AND TELEVISION BROADCASTING	6	60.0	1	10.0	3	30.0	10
1W01	COMMUNICATIONS TECHNOLOGIES**	5	50.0	2	20.0	3	30.0	10
1503	ELECTRICAL AND ELECTRONIC ENGINEERING-RELATED TECHNOLOGY	53	50.0	38	35.8	15	14.2	106
150301	Computer Engineering Technology/Technician	2	28.6	3	42.9	2	28.6	7
150303	Electrical, Electronic and Communications Engineering Technology/Technician	48	59.3	28	34.6	5	6.2	81
150310	Telecommunications Electronics technology	3	16.7	7	38.9	8	44.4	18
1504	ELECTROMECHANICAL INSTRUMENTATION AND MAINTENANCE TECHNOLOGY	36	85.7	6	14.3	0	0.0	42
150402	Computer Maintenance Technology/Technician	13	86.7	2	13.3	0	0.0	15
150405	Robotics Technology/Technician	12	92.3	1	7.7	0	0.0	13
150411	Automated Manufacturing Technology	11	78.6	3	21.4	0	0.0	14
200306	FASHION AND FABRIC CONSULTANT	4	100.0	0	0.0	0	0.0	4
220103	PARALEGAL/LEGAL ASSISTANT	32	42.7	32	42.7	11	14.7	75
430107	LAW ENFORCEMENT/POLICE SCIENCE	175	65.5	79	29.6	13	4.9	267
460302	ELECTRICIAN	33	71.7	12	26.1	1	2.2	46
4701	ELECTRICAL AND ELECTRONICS EQUIPMENT INSTALLERS AND REPAIRER	66	59.5	27	24.3	18	16.2	111
470101	Electrical and Electronics Equipment Installer and Repairer, General	3	60.0	2	40.0	0	0.0	5
470103	Communications Systems Installer and Repairer	4	25.0	6	37.5	6	37.5	16
470104	Computer Installer and Repairer	26	76.5	5	14.7	3	8.8	34
470105	Industrial Electronics Installer and Repairer	29	58.0	13	26.0	8	16.0	50
470106	Major Appliance Installer and Repairer	4	66.7	1	16.7	1	16.7	6
5107	HEALTH AND MEDICAL ADMINISTRATIVE SERVICES	59	61.5	33	34.4	4	4.2	96
510705	Medical Office Management	5	83.3	0	0.0	1	16.7	6
510707	Medical Records Technology/Technician	24	58.5	16	39.0	1	2.4	41
510708	Medical Transcription	30	61.2	17	34.7	2	4.1	49
5212	BUSINESS INFORMATION AND DATA PROCESSING SERVICES	374	67.1	152	27.3	31	5.6	557
521201	Management Information Systems and Business Data Processing, General	6	100.0	0	0.0	0	0.0	6
521202	Business Computer Programming/Programmer	278	67.5	113	27.4	21	5.1	412
521203	Business Systems Analysis and Design	6	66.7	2	22.2	1	11.1	9
521204	Business Systems Networking and Telecommunications	78	65.0	35	29.2	7	5.8	120
521205	Business Computer Facilities Operator	6	60.0	2	20.0	2	20.0	10
	Associate Degree	492	62.2	228	28.8	71	9.0	791
	Advanced Certificate (30 hours or more)	116	60.7	54	28.3	21	11.0	191
	Basic Certificate (Less than 30 hours)	235	68.7	100	29.2	7	2.0	342
	REPORT TOTAL	843	63.7	382	28.9	99	7.5	1324

\*Correctional & deceased students are not included in these totals

\*\* includes 100101 - Educational/Instructional Media Technology/Technician and 100104 - Radio and Television Broadcasting Technology/Technician

SOURCE OF DATA: ICCB Occupational Follow-Up Study - Fiscal Year 2001

Follow-up Study of Fiscal Year 2000  
Occupational Program Graduates

Illinois Community College Board

Table B-9

AVERAGE HOURLY SALARY EARNED BY GRADUATES FROM  
SELECTED OCCUPATIONAL PROGRAMS

CIP	PROGRAM	FULL-TIME		PART-TIME		TOTAL	
		NUMBER OF RESPONDENTS	AVERAGE HOURLY SALARY	NUMBER OF RESPONDENTS	AVERAGE HOURLY SALARY	NUMBER OF RESPONDENTS	AVERAGE HOURLY SALARY
090701	RADIO AND TELEVISION BROADCASTING	9	7.79	1	10.00	10	8.02
1001	COMMUNICATIONS TECHNOLOGIES**	5	11.83	3	6.92	8	9.99
1503	ELECTRICAL AND ELECTRONIC ENGINEERING-RELATED TECHNOLOGY	85	17.64	5	11.10	90	17.28
150301	Computer Engineering Technology/Technician	4	11.83	3	13.33	7	12.47
150303	Electrical, Electronic and Communications Engineering Technology/Technician	64	18.79	2	7.75	66	18.45
150310	Telecommunication Electronics technology	17	14.69	0	---	17	14.69
1504	ELECTROMECHANICAL, INSTRUMENTATION AND MAINTENANCE TECHNOLOGY	32	17.50	2	16.02	34	17.42
150402	Computer Maintenance Technology/Technician	13	15.99	0	---	13	15.99
150405	Robotics Technology/Technician	11	17.31	1	8.00	12	16.53
150411	Automated Manufacturing Technology	8	20.24	1	24.04	9	20.67
200306	FASHION AND FABRIC CONSULTANT	2	11.24	1	8.60	3	10.36
220103	PARALEGAL/LEGAL ASSISTANT	53	14.58	8	12.99	61	14.38
430107	LAW ENFORCEMENT/POLICE SCIENCE	200	15.67	26	8.21	226	14.81
460302	ELECTRICIAN	43	21.92	0	---	43	21.92
4701	ELECTRICAL AND ELECTRONICS EQUIPMENT INSTALLERS AND REPAIRER	86	16.47	11	8.56	97	15.58
470101	Electrical and Electronics Equipment Installer and Repairer, General	1	14.00	1	5.85	2	9.93
470103	Communications Systems Installer and Repairer	15	14.27	0	---	15	14.27
470104	Computer Installer and Repairer	21	14.51	7	8.34	28	12.96
470105	Industrial Electronics Installer and Repairer	45	18.43	1	10.00	46	18.24
470106	Major Appliance Installer and Repairer	4	13.75	2	10.00	6	12.5
5107	HEALTH AND MEDICAL ADMINISTRATIVE SERVICES	56	13.67	20	13.44	76	13.61
510705	Medical Office Management	2	19.62	0	---	2	19.62
510707	Medical Records Technology/Technician	28	14.39	6	13.95	34	14.31
510708	Medical Transcription	26	12.44	14	13.22	40	12.72
5212	BUSINESS INFORMATION AND DATA PROCESSING SERVICES	393	16.69	66	10.49	459	15.80
521201	Management Information Systems and Business Data Processing, General	4	27.03	1	8.00	5	23.22
521202	Business Computer Programming/Programmer	275	17.02	49	10.40	324	16.01
521203	Business Systems Analysis and Design	6	14.04	2	7.90	8	12.51
521204	Business Systems Networking and Telecommunications	101	16.15	13	11.15	114	15.58
521205	Business Computer Facilities Operator	7	8.11	1	13.85	8	8.83
	Associate Degree	582	16.18	83	9.74	665	15.38
	Advanced Certificate (30 hours or more)	139	17.49	30	10.84	169	16.25
	Basic Certificate (Less than 30 hours)	243	16.31	30	12.21	273	15.86
	REPORT TOTAL	964	16.39	143	10.49	1107	15.63

\*Correctional & deceased students are not included in these totals

\*\* Includes 100101 - Educational/Instructional Media Technology/Technician and 100104 - Radio and Television Broadcasting Technology/Technician

SOURCE OF DATA: ICCB Occupational Follow-Up Study - Fiscal Year 2001

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Table B-10

JOB SATISFACTION FOR EMPLOYED GRADUATES  
WORKING IN POSITIONS RELATED AND UNRELATED TO THEIR COMMUNITY COLLEGE PROGRAMS

CIP	PROGRAM	EMPLOYED GRADUATES WORKING IN A RELATED POSITION		EMPLOYED GRADUATES WORKING IN AN UNRELATED POSITION		EMPLOYED GRADUATES WORKING IN RELATED AND UNRELATED POSITIONS	
		NUMBER	SATISFACTION	NUMBER	SATISFACTION	NUMBER	SATISFACTION
090701	RADIO AND TELEVISION BROADCASTING	7	4.29	2	3.50	9	4.11
1001	COMMUNICATIONS TECHNOLOGIES**	6	2.83	3	3.33	9	3.00
1503	ELECTRICAL AND ELECTRONIC ENGINEERING-RELATED TECHNOLOGY	76	4.30	32	3.06	108	3.94
150301	Computer Engineering Technology/Technician	4	4.50	3	2.67	7	3.71
150303	Electrical, Electronic and Communications Engineering Technology/Technician	56	4.25	27	3.15	83	3.89
150310	Telecommunication Electronics technology	16	4.44	2	2.50	18	4.22
1504	ELECTROMECHANICAL INSTRUMENTATION AND MAINTENANCE TECHNOLOGY	35	4.20	6	4.00	41	4.17
150402	Computer Maintenance Technology/Technician	12	4.75	3	4.67	15	4.73
150405	Robotics Technology/Technician	12	3.92	1	2.00	13	3.77
150411	Automated Manufacturing Technology	11	3.91	2	4.00	13	3.92
200306	FASHION AND FABRIC CONSULTANT	1	4.00	3	4.00	4	4.00
220103	PARALEGAL/LEGAL ASSISTANT	58	4.07	17	4.00	75	4.05
430107	LAW ENFORCEMENT/POLICE SCIENCE	180	4.44	84	3.73	264	4.21
460302	ELECTRICIAN	44	4.73	2	4.00	46	4.70
4701	ELECTRICAL AND ELECTRONICS EQUIPMENT INSTALLERS AND REPAIRER	90	4.09	22	3.14	112	3.90
470101	Electrical and Electronics Equipment Installer and Repairer, General	4	4.25	2	2.50	6	3.67
470103	Communications Systems Installer and Repairer	15	4.27	1	4.00	16	4.25
470104	Computer Installer and Repairer	21	4.24	13	3.23	34	3.85
470105	Industrial Electronics Installer and Repairer	46	4.00	4	3.75	50	3.98
470106	Major Appliance Installer and Repairer	4	3.50	2	1.50	6	2.83
5107	HEALTH AND MEDICAL ADMINISTRATIVE SERVICES	83	4.31	11	3.18	94	4.18
510705	Medical Office Management	6	4.83	0	0.00	6	4.83
510707	Medical Records Technology/Technician	40	4.38	1	5.00	41	4.39
510708	Medical Transcription	37	4.16	10	3.00	47	3.91
5212	BUSINESS INFORMATION AND DATA PROCESSING SERVICES	417	4.03	143	3.08	560	3.79
521201	Management Information Systems and Business Data Processing, General	6	4.00	0	0.00	6	4.00
521202	Business Computer Programming/Programmer	309	4.01	105	3.20	414	3.80
521203	Business Systems Analysis and Design	5	4.00	4	2.25	9	3.22
521204	Business Systems Networking and Telecommunications	92	4.21	30	3.03	122	3.92
521205	Business Computer Facilities Operator	5	2.40	4	1.25	9	1.89
	Associate Degree	589	4.13	195	3.44	784	3.96
	Advanced Certificate (30 hours or more)	159	4.30	31	2.94	190	4.08
	Basic Certificate (Less than 30 hours)	249	4.24	99	3.27	348	3.96
	REPORT TOTAL	997	4.19	325	3.34	1322	3.98

\*Correctional & deceased students are not included in these totals

\*\* Includes 100101 - Educational/Instructional Media Technology/Technician and 100104 - Radio and Television Broadcasting Technology/Technician

SOURCE OF DATA: IECB Occupational Follow-Up Study - Fiscal Year 2001

Illinois Community College Board

Table B-11

GRADUATE SATISFACTION WITH MAJOR PROGRAM COMPONENTS  
FOR SELECTED OCCUPATIONAL PROGRAMS

CIP	PROGRAM	COURSE CONTENT	LECTURE/LAB EXPERIENCE	EQUIPMENT FACILITIES MATERIALS	JOB PREPARATION	PREPARATION FOR FURTHER EDUCATION	LABOR MARKET EMPLOYMENT INFORMATION	OVERALL AVERAGE
090701	RADIO AND TELEVISION BROADCASTING	4.50	4.33	4.56	3.89	4.25	3.78	4.22
1001	COMMUNICATIONS TECHNOLOGIES**	4.20	4.56	3.80	3.70	3.90	3.89	4.03
1503	ELECTRICAL AND ELECTRONIC ENGINEERING-RELATED TECHNOLOGY	4.43	4.36	4.18	4.02	4.29	3.79	4.20
150301	Computer Engineering Technology/Technician	4.38	4.00	3.86	3.71	4.29	3.57	4.08
150303	Electrical, Electronic and Communications Engineering Technology/Technician	4.45	4.34	4.18	3.97	4.30	3.68	4.17
150310	Telecommunication Electronics technology	4.33	4.67	4.33	4.39	4.22	4.44	4.40
1504	ELECTROMECHANICAL, INSTRUMENTATION AND MAINTENANCE TECHNOLOGY	4.31	4.20	4.13	3.85	4.19	3.71	4.07
150402	Computer Maintenance Technology/Technician	4.12	3.92	3.84	3.75	4.04	3.71	3.89
150405	Robotics Technology/Technician	4.31	4.08	4.00	3.58	4.00	3.38	3.88
150411	Automated Manufacturing Technology	4.59	4.71	4.65	4.19	4.53	4.00	4.47
200306	FASHION AND FABRIC CONSULTANT	4.71	4.71	4.57	4.43	4.40	3.80	4.49
220103	PARALEGAL/LEGAL ASSISTANT	4.53	4.51	4.23	4.29	4.32	4.10	4.33
430107	LAW ENFORCEMENT/POLICE SCIENCE	4.61	4.50	4.43	4.32	4.37	4.13	4.41
460302	ELECTRICIAN	4.51	4.43	4.20	4.15	4.39	3.87	4.26
4701	ELECTRICAL AND ELECTRONICS EQUIPMENT INSTALLERS AND REPAIRER	4.30	4.30	4.05	3.93	4.12	3.72	4.07
470101	Electrical and Electronics Equipment Installer and Repairer, General	3.50	3.80	2.17	2.50	3.33	2.75	3.06
470103	Communications Systems Installer and Repairer	4.22	4.50	4.22	4.11	4.06	4.28	4.56
470104	Computer Installer and Repairer	4.25	4.18	3.97	3.80	4.11	3.70	4.02
470105	Industrial Electronics Installer and Repairer	4.42	4.35	4.19	4.00	4.16	3.45	4.11
470106	Major Appliance Installer and Repairer	4.57	4.43	4.43	4.29	4.29	4.29	4.38
5107	HEALTH AND MEDICAL, ADMINISTRATIVE SERVICES	4.40	4.41	4.26	4.23	4.26	4.04	4.27
510705	Medical Office Management	4.50	4.38	4.50	4.43	4.80	4.43	4.50
510707	Medical Records Technology/Technician	4.59	4.49	4.38	4.31	4.40	4.20	4.39
510708	Medical Transcription	4.23	4.36	4.13	4.14	4.10	3.86	4.14
5212	BUSINESS INFORMATION AND DATA PROCESSING SERVICES	4.30	4.27	4.28	3.78	4.07	3.59	4.07
521201	Management Information Systems and Business Data Processing, General	4.67	4.78	4.44	4.50	4.56	4.22	4.54
521202	Business Computer Programming/Programmer	4.35	4.34	4.34	3.88	4.12	3.63	4.12
521203	Business Systems Analysis and Design	4.55	3.73	4.36	3.70	4.50	4.00	4.18
521204	Business Systems Networking and Telecommunications	4.09	4.01	4.05	3.42	3.86	3.38	3.82
521205	Business Computer Facilities Operator	3.92	4.38	4.07	3.23	3.69	3.75	3.76
	Associate Degree	4.43	4.39	4.31	4.00	4.21	3.85	4.21
	Advanced Certificate (30 hours or more)	4.24	4.28	4.10	3.85	4.05	3.70	4.05
	Basic Certificate (Less than 30 hours)	4.41	4.32	4.29	4.02	4.21	3.71	4.17
	REPORT TOTAL	4.40	4.35	4.27	3.99	4.19	3.79	4.18

87\*Correctional & deceased students are not included in these totals

\*\* Includes 100101 - Educational/Instructional Media Technology/Technician and 100104 - Radio and Television Broadcasting Technology/Technician

SOURCE OF DATA: ICCB Occupational Follow-Up Study - Fiscal Year 2001

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Illinois Community College Board

Table B-12

GRADUATE SATISFACTION WITH SERVICES  
FOR SELECTED OCCUPATIONAL PROGRAMS

CIP	PROGRAM	FINANCIAL AID	ACADEMIC ADVISING	CAREER PLANNING	TRANSFER PLANNING	COUNSELING	TUTORING	LIBRARY AUDIO VIS	STUDENT ACTIVITY	OVERALL AVERAGE
090701	RADIO AND TELEVISION BROADCASTING	4.45	3.33	3.25	3.63	3.89	3.50	4.50	4.29	3.88
1001	COMMUNICATIONS TECHNOLOGIES**	2.71	3.44	4.00	2.75	4.50	4.50	4.43	4.50	3.72
1503	ELECTRICAL AND ELECTRONIC ENGINEERING-RELATED TECHNOLOGY	4.31	4.02	3.93	3.57	4.05	4.23	4.40	3.92	4.12
150301	Computer Engineering Technology/Technician	3.86	4.29	3.86	4.29	4.14	4.57	4.29	3.83	4.14
150303	Electrical, Electronic and Communications Engineering Technology/Technician	4.46	3.93	3.76	3.50	3.96	4.14	4.41	3.78	4.10
150310	Telecommunication Electronics technology	4.17	4.42	4.73	3.17	4.57	5.00	4.40	4.40	4.24
1504	ELECTROMECHANICAL INSTRUMENTATION AND MAINTENANCE TECHNOLOGY	3.89	4.22	3.87	4.44	4.31	4.35	4.57	4.23	4.29
150402	Computer Maintenance Technology/Technician	3.76	4.25	4.00	4.50	4.43	4.27	4.45	3.92	4.26
150405	Robotics Technology/Technician	4.00	3.80	2.80	3.67	4.00	5.00	4.73	5.00	4.24
150411	Automated Manufacturing Technology	4.20	4.36	4.29	4.63	4.20	5.00	4.62	4.50	4.37
200306	FASHION AND FABRIC CONSULTANT	5.00	4.25	5.00	-----	5.00	4.00	5.00	----	4.71
220103	PARALEGAL/LEGAL ASSISTANT	4.30	4.24	4.07	3.62	4.24	3.88	4.36	4.41	4.11
430107	LAW ENFORCEMENT/POLICE SCIENCE	4.15	4.25	3.99	3.92	4.09	3.97	4.56	4.17	4.21
460302	ELECTRICIAN	4.88	3.67	4.29	4.00	4.15	4.33	4.17	4.25	4.11
4701	ELECTRICAL AND ELECTRONICS EQUIPMENT INSTALLERS AND REPAIRER	4.12	4.01	4.04	3.67	3.79	4.30	4.37	4.24	4.12
470101	Electrical and Electronics Equipment Installer and Repairer, General	4.50	3.67	1.00	4.00	4.00	5.00	4.00	4.00	4.35
470103	Communications Systems Installer and Repairer	3.90	4.07	4.27	3.17	3.25	4.60	4.15	3.60	3.99
470104	Computer Installer and Repairer	3.94	3.63	3.68	4.09	3.55	4.14	4.23	4.31	3.95
470105	Industrial Electronics Installer and Repairer	4.41	4.31	4.33	3.36	4.00	4.11	4.54	4.31	4.28
470106	Major Appliance Installer and Repairer	4.00	3.75	5.00	4.50	4.67	4.67	4.67	4.67	3.95
5107	HEALTH AND MEDICAL ADMINISTRATIVE SERVICES	4.10	4.20	4.00	3.64	4.04	4.20	4.42	4.24	4.15
510705	Medical Office Management	3.33	3.86	4.00	3.67	4.00	3.67	4.33	2.67	4.10
510707	Medical Records Technology/Technician	4.38	4.12	4.44	4.00	4.00	4.14	4.21	4.64	4.10
510708	Medical Transcription	4.00	4.33	3.68	3.22	4.09	4.50	4.67	4.27	4.22
5212	BUSINESS INFORMATION AND DATA PROCESSING SERVICES	4.10	3.91	3.72	3.87	3.91	3.93	4.38	4.06	4.03
521201	Management Information Systems and Business Data Processing, General	4.33	4.33	4.60	5.00	4.67	4.50	4.43	4.60	4.25
521202	Business Computer Programming/Programmer	4.15	3.90	3.79	3.91	3.92	3.96	4.40	4.04	4.05
521203	Business Systems Analysis and Design	5.00	4.44	4.80	4.50	4.50	5.00	4.75	4.75	4.65
521204	Business Systems Networking and Telecommunications	3.88	3.86	3.29	3.44	3.79	3.71	4.27	4.02	3.89
521205	Business Computer Facilities Operator	3.40	4.00	4.20	4.75	3.67	3.33	4.50	4.50	4.02
	Associate Degree	4.19	4.05	3.90	3.85	4.01	3.99	4.46	4.16	4.12
	Advanced Certificate (30 hours or more)	4.05	4.06	3.92	3.54	3.97	3.89	4.34	4.10	4.06
	Basic Certificate (Less than 30 hours)	4.00	3.93	3.69	3.95	3.96	4.14	4.36	4.00	4.07
	REPORT TOTAL	4.13	4.02	3.86	3.84	3.99	4.02	4.43	4.12	4.10

\*Correctional & deceased students are not included in these totals

\*\* Includes 100101 - Educational/Instructional Media Technology/Technician and 100104 - Radio and Television Broadcasting Technology/Technician

SOURCE OF DATA: ICCB Occupational Follow-Up Study - Fiscal Year 2001

Appendix C

**COLLEGE-LEVEL OCCUPATIONAL FOLLOW-UP STUDY TABLES  
FOR SELECTED OCCUPATIONAL PROGRAMS BY  
CLASSIFICATION OF INSTRUCTIONAL PROGRAM CODE**

Illinois Community College Board

Table C

OCCUPATIONAL FOLLOW-UP SUMMARY BY COLLEGE AND CIP

College	Number Surveyed	Number Responding	Response Rate	Combined Employment Cont Ed Rate	Employ- ment Rate	Continuing Education Rate	Unemployed/ Seeking Employment
<b>090701 - RADIO AND TELEVISION BROADCASTING</b>							
50501 Parkland	1	1	100	100.0	100.0	0.0	0.0
50801 Kennedy-King	11	8	72.7	66.7	33.3	33.3	50.0
51701 Lake Land	5	4	80.0	75.0	75.0	0.0	0.0
53601 Lewis & Clark	5	5	100.0	100.0	100.0	100.0	0.0
Totals	22	18	81.8	84.6	76.9	46.2	9.1
<b>1001 - COMMUNICATIONS TECHNOLOGIES</b>							
52903 Wabash Valley	4	4	100.0	100.0	100.0	50.0	0.0
53901 Wood	8	4	50.0	100.0	100.0	0.0	0.0
Totals	12	8	66.7	100.0	100.0	25.0	0.0
<b>150301 - COMPUTER ENGINEERING TECHNOLOGY/TECHNICIAN</b>							
52101 Rend Lake	10	7	70.0	100.0	100.0	85.7	0.0
52401 Moraine Valley	1	1	100.0	100.0	100.0	100.0	0.0
Totals	11	8	72.7	100.0	100.0	87.5	0.0

SOURCE OF DATA: Fiscal Year 2001 Occupational Follow-up Data

Illinois Community College Board

Table C

OCCUPATIONAL FOLLOW-UP SUMMARY BY COLLEGE AND CIP

College	Number Surveyed	Number Responding	Response Rate	Combined Employment Cont Ed Rate	Employ- ment Rate	Continuing Education Rate	Unemployed/ Seeking Employment
<b>150303 - ELECTRICAL, ELECTRONIC AND COMMUNICATIONS ENGINEERING TECHNOLOGY/TECHNICIAN</b>							
50101 Kaskaskia	2	0	0.0	---	---	---	---
50201 DuPage	5	2	40.0	100.0	100.0	50.0	0.0
50401 Triton	3	2	66.7	100.0	100.0	50.0	0.0
50501 Parkland	3	2	66.7	50.0	50.0	0.0	---
50601 Sauk Valley	9	6	66.7	83.3	66.7	16.7	0.0
50804 Truman	5	4	80.0	100.0	100.0	0.0	0.0
50901 Elgin	5	3	60.0	100.0	66.7	100.0	33.3
51001 South Suburban	4	3	75.0	33.3	33.3	0.0	66.7
51101 Rock Valley	6	4	66.7	100.0	100.0	0.0	0.0
51201 Harper	19	15	78.9	100.0	93.3	53.3	0.0
51301 Illinois Valley	3	2	66.7	50.0	50.0	0.0	50.0
51401 Illinois Central	2	1	50.0	100.0	0.0	100.0	---
51501 Prairie State	4	3	75.0	66.7	66.7	33.3	0.0
51601 Waubensee	6	2	33.3	100.0	100.0	50.0	0.0
51701 Lake Land	4	3	75.0	100.0	100.0	0.0	0.0
51801 Sandburg	2	1	50.0	100.0	100.0	0.0	0.0
51901 Highland	1	0	0.0	---	---	---	---
52001 Kankakee	11	5	45.5	100.0	100.0	20.0	0.0
52301 Kishwaukee	1	0	0.0	---	---	---	---
52401 Moraine Valley	2	0	0.0	---	---	---	---
52501 Joliet	14	4	28.6	100.0	75.0	75.0	0.0
52601 Lincoln Land	11	7	63.6	71.4	71.4	14.3	16.7
52801 McHenry	17	9	52.9	88.9	77.8	33.3	0.0
52903 Wabash Valley	7	7	100.0	100.0	57.1	42.9	0.0
52904 Frontier	2	2	100.0	100.0	100.0	50.0	0.0
53001 Logan	6	3	50.0	100.0	66.7	33.3	0.0
53101 Shawnee	4	1	25.0	100.0	100.0	100.0	0.0
53201 Lake County	9	6	66.7	100.0	100.0	33.3	0.0
53401 Spoon River	2	1	50.0	100.0	0.0	100.0	---
53501 Oakton	5	1	20.0	100.0	100.0	0.0	0.0
53901 Wood	3	3	100.0	100.0	100.0	33.3	0.0
54001 Heartland	3	3	100.0	100.0	100.0	66.7	0.0
Totals	180	105	58.3	91.3	80.8	35.9	6.7

SOURCE OF DATA: Fiscal Year 2001 Occupational Follow-up Data

Illinois Community College Board

Table C

OCCUPATIONAL FOLLOW-UP SUMMARY BY COLLEGE AND CIP

College	Number Surveyed	Number Responding	Response Rate	Combined Employment Cont Ed Rate	Employ- ment Rate	Continuing Education Rate	Unemployed/ Seeking Employment
<b>150310 - TELECOMMUNICATION ELECTRONICS TECHNOLOGY</b>							
51701 Lake Land	2	0	0.0	---	---	---	---
52701 Morton	2	1	50.0	100.0	100.0	0.0	0.0
52901 Lincoln Trail	23	17	73.9	100.0	100.0	0.0	0.0
Totals	27	18	66.7	100.0	100.0	0.0	0.0
<b>150402 - COMPUTER MAINTENANCE TECHNOLOGY/TECHNICIAN</b>							
50201 DuPage	5	3	60.0	100.0	66.7	33.3	0.0
50401 Triton	19	8	42.1	87.5	75.0	62.5	14.3
50501 Parkland	8	7	87.5	85.7	57.1	57.1	0.0
50805 Olive-Harvey	11	5	45.5	100.0	100.0	0.0	0.0
51201 Harper	1	1	100.0	100.0	100.0	0.0	0.0
53501 Oakton	1	1	100.0	100.0	100.0	0.0	0.0
Totals	45	25	55.6	91.3	73.9	43.5	5.6
<b>150405 - ROBOTICS TECHNOLOGY/TECHNICIAN</b>							
50201 DuPage	4	2	50.0	100.0	100.0	50.0	0.0
50301 Black Hawk	1	1	100.0	100.0	100.0	100.0	0.0
50401 Triton	1	1	100.0	100.0	100.0	0.0	0.0
51401 Illinois Central	11	8	72.7	100.0	87.5	12.5	0.0
51601 Waubensee	3	2	66.7	100.0	100.0	50.0	0.0
Totals	20	14	70.0	100.0	92.9	28.6	0.0
<b>150411 - AUTOMATED MANUFACTURING TECHNOLOGY</b>							
50201 DuPage	1	1	100.0	100.0	100.0	0.0	0.0
50401 Triton	5	1	20.0	100.0	100.0	0.0	0.0
51201 Harper	1	0	0.0	---	---	---	---
51301 Illinois Valley	4	3	75.0	100.0	100.0	0.0	0.0
51601 Waubensee	1	1	100.0	100.0	100.0	100.0	0.0
52301 Kishwaukee	1	1	100.0	100.0	100.0	0.0	0.0
53001 Logan	3	3	100.0	100.0	0.0	100.0	---
53201 Lake County	4	1	25.0	100.0	100.0	0.0	0.0
53501 Oakton	11	6	54.5	100.0	100.0	33.3	0.0
Totals	31	17	54.8	100.0	82.4	35.3	0.0
<b>200306 - FASHION AND FABRIC CONSULTANT</b>							
50201 DuPage	7	4	57.1	100.0	75.0	75.0	0.0
51201 Harper	7	3	42.9	33.3	33.3	0.0	66.7
Totals	14	7	50.0	71.4	57.1	42.9	33.3

SOURCE OF DATA: Fiscal Year 2001 Occupational Follow-up Data

Illinois Community College Board

Table C

OCCUPATIONAL FOLLOW-UP SUMMARY BY COLLEGE AND CIP

College	Number Surveyed	Number Responding	Response Rate	Combined Employment Cont Ed Rate	Employ- ment Rate	Continuing Education Rate	Unemployed/ Seeking Employment
<b>220103 - PARALEGAL/LEGAL ASSISTANT</b>							
50301 Black Hawk	5	4	80.0	100.0	100.0	50.0	0.0
50901 Elgin	17	9	52.9	88.9	88.9	11.1	11.1
51001 South Suburban	11	8	72.7	100.0	100.0	25.0	0.0
51201 Harper	33	22	66.7	100.0	100.0	9.1	0.0
51401 Illinois Central	15	11	73.3	100.0	100.0	18.2	0.0
52201 Southwestern	37	26	70.3	96.2	88.5	26.9	4.2
Totals	118	80	67.8	97.5	94.9	20.0	2.6
<b>430107 - LAW ENFORCEMENT/POLICE SCIENCE</b>							
50101 Kaskaskia	23	16	69.6	100.0	100.0	33.3	0.0
50201 DuPage	37	21	56.8	100.0	100.0	42.9	0.0
50401 Triton	18	10	55.6	100.0	100.0	30.0	0.0
50501 Parkland	18	13	72.2	100.0	92.3	7.7	0.0
50601 Sauk Valley	3	1	33.3	100.0	100.0	0.0	0.0
50701 Danville	7	5	71.4	100.0	100.0	40.0	0.0
50802 Washington	6	5	83.3	100.0	100.0	50.0	0.0
50804 Truman	2	2	100.0	50.0	50.0	0.0	0.0
50806 Daley	29	10	34.5	88.9	77.8	66.7	22.2
50807 Wright	15	12	80.0	100.0	100.0	40.0	0.0
50901 Elgin	5	1	20.0	100.0	100.0	0.0	0.0
51001 South Suburban	15	10	66.7	90.0	90.0	40.0	0.0
51101 Rock Valley	7	4	57.1	100.0	100.0	0.0	0.0
51201 Harper	13	7	53.8	100.0	85.7	28.6	0.0
51301 Illinois Valley	9	4	44.4	100.0	100.0	0.0	0.0
51401 Illinois Central	26	17	65.4	100.0	94.1	52.9	0.0
51501 Prairie State	1	0	0.0	---	---	---	---
51601 Waubonsee	10	8	80.0	100.0	100.0	25.0	0.0
51701 Lake Land	8	4	50.0	100.0	100.0	25.0	0.0
51801 Sandburg	2	1	50.0	100.0	100.0	0.0	0.0
52001 Kankakee	13	7	53.8	100.0	100.0	28.6	0.0
52101 Rend Lake	8	4	50.0	75.0	75.0	25.0	25.0
52201 Southwestern	106	56	52.8	100.0	100.0	16.1	0.0
52301 Kishwaukee	1	1	100.0	100.0	100.0	0.0	0.0
52401 Moraine Valley	40	23	57.5	95.7	87.0	43.5	13.0
52501 Joliet	9	1	11.1	100.0	100.0	0.0	0.0
52601 Lincoln Land	14	7	50.0	71.4	71.4	14.3	28.6
52701 Morton	9	5	55.6	100.0	100.0	0.0	0.0
52801 McHenry	4	3	75.0	100.0	100.0	33.3	0.0
52902 Olney Central	4	3	75.0	100.0	100.0	66.7	0.0
52904 Frontier	1	1	100.0	100.0	100.0	100.0	0.0
53001 Logan	31	19	61.3	89.5	47.4	42.1	18.2
53101 Shawnee	2	0	0.0	---	---	---	---
53201 Lake County	12	6	50.0	100.0	83.3	16.7	16.7
53301 Southeastern	7	6	85.7	100.0	100.0	33.3	0.0
53501 Oakton	8	3	37.5	100.0	100.0	66.7	0.0
53601 Lewis & Clark	16	15	93.8	100.0	86.7	80.0	7.1
53701 Richland	3	3	100.0	100.0	100.0	33.3	0.0
53901 Wood	1	1	100.0	0.0	0.0	0.0	---
Totals	543	315	58.0	96.7	91.2	33.1	4.1

SOURCE OF DATA: Fiscal Year 2001 Occupational Follow-up Data



Illinois Community College Board

Table C

OCCUPATIONAL FOLLOW-UP SUMMARY BY COLLEGE AND CIP

College	Number Surveyed	Number Responding	Response Rate	Combined Employment Cont Ed Rate	Employ- ment Rate	Continuing Education Rate	Unemployed/ Seeking Employment
<b>460302 - ELECTRICIAN</b>							
50401 Triton	2	1	50.0	100.0	100.0	0.0	0.0
51101 Rock Valley	20	14	70.0	100.0	100.0	0.0	0.0
51301 Illinois Valley	4	3	75.0	100.0	100.0	0.0	0.0
51501 Prairie State	27	18	66.7	83.3	83.3	0.0	6.3
52201 Southwestern	22	11	50.0	100.0	100.0	18.2	0.0
52301 Kishwaukee	2	1	50.0	100.0	100.0	0.0	0.0
52501 Joliet	1	0	0.0	---	---	---	---
53901 Wood	1	1	100.0	100.0	100.0	0.0	0.0
Totals	79	49	62.0	93.9	93.9	4.1	2.1
<b>470101 - ELECTRICAL AND ELECTRONICS EQUIPMENT INSTALLER AND REPAIRER, GENERAL</b>							
50801 Kennedy-King	10	1	10.0	100.0	100.0	0.0	0.0
51201 Harper	9	5	55.6	100.0	100.0	20.0	0.0
Totals	19	6	31.6	100.0	100.0	16.7	0.0
<b>470103 - COMMUNICATIONS SYSTEMS INSTALLER AND REPAIRER</b>							
50601 Sauk Valley	3	3	100.0	100.0	66.7	66.7	0.0
51701 Lake Land	1	0	0.0	---	---	---	---
52201 Southwestern	3	2	66.7	100.0	100.0	100.0	0.0
52901 Lincoln Trail	17	13	76.5	92.3	92.3	38.5	0.0
Totals	24	18	75.0	94.4	88.9	50.0	0.0
<b>470104 - COMPUTER INSTALLER AND REPAIRER</b>							
50401 Triton	15	9	60.0	88.9	88.9	11.1	11.1
50601 Sauk Valley	1	1	100.0	100.0	100.0	100.0	0.0
50805 Olive-Harvey	3	2	66.7	50.0	50.0	0.0	50.0
50806 Daley	2	0	0.0	---	---	---	---
50901 Elgin	3	1	33.3	100.0	100.0	100.0	0.0
51101 Rock Valley	2	2	100.0	100.0	100.0	0.0	0.0
51201 Harper	7	3	42.9	100.0	100.0	33.3	0.0
51501 Prairie State	4	1	25.0	0.0	0.0	0.0	---
52201 Southwestern	3	2	66.7	100.0	100.0	0.0	0.0
52902 Olney Central	5	3	60.0	100.0	100.0	66.7	0.0
53001 Logan	1	0	0.0	---	---	---	---
53201 Lake County	13	10	76.9	90.0	90.0	50.0	10.0
53301 Southeastern	6	5	83.3	100.0	100.0	20.0	0.0
53601 Lewis & Clark	2	1	50.0	100.0	100.0	100.0	0.0
Totals	67	40	59.7	89.7	89.7	32.5	7.9
<b>470105 - INDUSTRIAL ELECTRONICS INSTALLER AND REPAIRER</b>							
50201 DuPage	8	3	37.5	100.0	100.0	33.3	0.0
50501 Parkland	3	3	100.0	100.0	100.0	0.0	0.0
50601 Sauk Valley	7	7	100.0	100.0	100.0	14.3	0.0
50701 Danville	5	2	40.0	50.0	50.0	0.0	50.0
52001 Kankakee	12	9	75.0	88.9	88.9	22.2	11.1
52201 Southwestern	10	8	80.0	100.0	100.0	25.0	0.0
52501 Joliet	31	6	19.4	100.0	100.0	50.0	0.0
52601 Lincoln Land	7	2	28.6	100.0	100.0	0.0	0.0
53201 Lake County	2	2	100.0	100.0	100.0	0.0	0.0
53301 Southeastern	1	0	0.0	---	---	---	---
53601 Lewis & Clark	5	5	100.0	80.0	60.0	80.0	40.0
53701 Richland	9	9	100.0	100.0	100.0	44.4	0.0
53901 Wood	1	1	100.0	100.0	100.0	0.0	0.0
Totals	101	57	56.4	94.7	93.0	29.8	7.0

SOURCE OF DATA: Fiscal Year 2001 Occupational Follow-up Data

Illinois Community College Board

Table C

OCCUPATIONAL FOLLOW-UP SUMMARY BY COLLEGE AND CIP

College	Number Surveyed	Number Responding	Response Rate	Combined Employment Cont Ed Rate	Employ- ment Rate	Continuing Education Rate	Unemployed/ Seeking Employment
<b>470106 - MAJOR APPLIANCE INSTALLER AND REPAIRER</b>							
50804 Truman	6	3	50.0	100.0	100.0	0.0	0.0
52201 Southwestern	6	4	66.7	100.0	100.0	0.0	0.0
Totals	12	7	58.3	100.0	100.0	0.0	0.0
<b>510705 - MEDICAL OFFICE MANAGEMENT</b>							
53201 Lake County	10	8	80.0	87.5	75.0	75.0	0.0
Totals	10	8	80.0	87.5	75.0	75.0	0.0
<b>510707 - MEDICAL RECORDS TECHNOLOGY/TECHNICIAN</b>							
50201 DuPage	8	5	62.5	100.0	100.0	20.0	0.0
50804 Truman	8	5	62.5	100.0	100.0	50.0	0.0
52101 Rend Lake	1	1	100.0	100.0	100.0	0.0	0.0
52201 Southwestern	5	5	100.0	80.0	80.0	0.0	0.0
52401 Moraine Valley	9	7	77.8	100.0	100.0	14.3	0.0
53001 Logan	1	0	0.0	---	---	---	---
53101 Shawnee	1	0	0.0	---	---	---	---
53201 Lake County	7	5	71.4	100.0	100.0	20.0	0.0
53501 Oakton	22	17	77.3	94.1	94.1	11.8	0.0
Totals	62	45	72.6	95.5	95.5	15.9	0.0
<b>510708 - MEDICAL TRANSCRIPTION</b>							
50201 DuPage	32	24	75.0	91.7	91.7	16.7	8.3
50301 Black Hawk	3	0	0.0	---	---	---	---
50501 Parkland	3	2	66.7	100.0	100.0	50.0	0.0
50801 Kennedy-King	11	7	63.6	50.0	50.0	0.0	50.0
51001 South Suburban	2	1	50.0	100.0	100.0	0.0	0.0
51201 Harper	4	4	100.0	100.0	100.0	0.0	0.0
51401 Illinois Central	2	1	50.0	100.0	100.0	0.0	0.0
51601 Waubensee	3	1	33.3	100.0	100.0	100.0	0.0
52301 Kishwaukee	6	5	83.3	100.0	100.0	0.0	0.0
52501 Joliet	5	2	40.0	100.0	100.0	0.0	0.0
52601 Lincoln Land	2	2	100.0	100.0	100.0	100.0	0.0
52801 McHenry	2	1	50.0	100.0	100.0	0.0	0.0
52902 Olney Central	2	1	50.0	100.0	100.0	100.0	0.0
53001 Logan	3	2	66.7	100.0	100.0	0.0	0.0
53101 Shawnee	3	0	0.0	---	---	---	---
53201 Lake County	4	3	75.0	100.0	100.0	33.3	0.0
Totals	87	56	64.4	90.9	90.9	18.2	9.1
<b>521201 - MANAGEMENT INFORMATION SYSTEMS AND BUSINESS DATA PROCESSING, GENERAL</b>							
50501 Parkland	4	3	75.0	66.7	33.3	33.3	0.0
54001 Heartland	9	6	66.7	100.0	100.0	0.0	0.0
Totals	13	9	69.2	88.9	77.8	11.1	0.0

SOURCE OF DATA: Fiscal Year 2001 Occupational Follow-up Data

Illinois Community College Board

Table C

OCCUPATIONAL FOLLOW-UP SUMMARY BY COLLEGE AND CIP

College	Number Surveyed	Number Responding	Response Rate	Combined Employment Cont Ed Rate	Employ- ment Rate	Continuing Education Rate	Unemployed/ Seeking Employment
<b>521202 - BUSINESS COMPUTER PROGRAMMING/PROGRAMMER</b>							
50101 Kaskaskia	14	11	78.6	100.0	100.0	30.0	0.0
50201 DuPage	188	83	44.1	79.5	63.9	41.0	26.4
50301 Black Hawk	8	6	75.0	83.3	83.3	16.7	16.7
50401 Triton	9	5	55.6	80.0	80.0	0.0	0.0
50501 Parkland	31	23	74.2	78.3	73.9	13.0	19.0
50601 Sauk Valley	1	1	100.0	100.0	100.0	0.0	0.0
50701 Danville	16	10	62.5	80.0	80.0	20.0	20.0
50801 Kennedy-King	30	15	50.0	100.0	57.1	57.1	0.0
50802 Washington	23	12	52.2	90.0	80.0	40.0	20.0
50803 Malcolm X	8	6	75.0	100.0	100.0	20.0	0.0
50804 Truman	17	5	29.4	100.0	80.0	60.0	20.0
50805 Olive-Harvey	25	13	52.0	90.9	90.9	18.2	0.0
50806 Daley	81	49	60.5	88.4	82.2	47.7	7.5
50807 Wright	17	14	82.4	50.0	50.0	16.7	40.0
50901 Elgin	20	13	65.0	76.9	69.2	38.5	30.8
51001 South Suburban	32	22	68.8	100.0	90.9	33.3	4.8
51101 Rock Valley	19	12	63.2	100.0	83.3	33.3	0.0
51201 Harper	69	53	76.8	88.5	84.6	17.0	8.3
51301 Illinois Valley	4	2	50.0	100.0	100.0	0.0	0.0
51401 Illinois Central	25	14	56.0	100.0	100.0	14.3	0.0
51501 Prairie State	14	12	85.7	75.0	66.7	25.0	27.3
51601 Waubensee	9	7	77.8	85.7	85.7	14.3	0.0
51701 Lake Land	16	8	50.0	85.7	85.7	12.5	0.0
51801 Sandburg	14	9	64.3	100.0	88.9	22.2	0.0
51901 Highland	4	3	75.0	100.0	100.0	0.0	0.0
52001 Kankakee	16	10	62.5	90.0	90.0	0.0	0.0
52201 Southwestern	9	7	77.8	85.7	71.4	14.3	28.6
52401 Moraine Valley	39	22	56.4	90.5	81.8	28.6	10.0
52501 Joliet	17	6	35.3	100.0	100.0	33.3	0.0
52601 Lincoln Land	38	20	52.6	100.0	100.0	35.0	0.0
52701 Morton	23	12	52.2	83.3	83.3	8.3	9.1
52801 McHenry	7	5	71.4	100.0	100.0	20.0	0.0
53001 Logan	16	10	62.5	100.0	60.0	33.3	0.0
53101 Shawnee	6	1	16.7	100.0	100.0	0.0	0.0
53201 Lake County	14	9	64.3	77.8	77.8	55.6	0.0
53301 Southeastern	6	5	83.3	100.0	80.0	80.0	20.0
53401 Spoon River	7	5	71.4	80.0	80.0	20.0	20.0
53501 Oakton	29	17	58.6	82.4	76.5	23.5	13.3
53601 Lewis & Clark	21	19	90.5	100.0	89.5	84.2	5.6
53701 Richland	7	4	57.1	75.0	75.0	0.0	0.0
54001 Heartland	5	2	40.0	100.0	100.0	50.0	0.0
Totals	954	562	58.9	88.1	80.3	31.0	11.5
<b>521203 - BUSINESS SYSTEMS ANALYSIS AND DESIGN</b>							
52901 Lincoln Trail	12	9	75.0	75.0	77.8	25.0	0.0
53701 Richland	3	2	66.7	100.0	100.0	0.0	0.0
Totals	15	11	73.3	80.0	81.8	20.0	0.0

SOURCE OF DATA: Fiscal Year 2001 Occupational Follow-up Data

Illinois Community College Board

Table C

OCCUPATIONAL FOLLOW-UP SUMMARY BY COLLEGE AND CIP

College	Number Surveyed	Number Responding	Response Rate	Combined Employment Cont Ed Rate	Employ- ment Rate	Continuing Education Rate	Unemployed/ Seeking Employment
<b>521204 - BUSINESS SYSTEMS NETWORKING AND TELECOMMUNICATIONS</b>							
50301 Black Hawk	3	2	66.7	100.0	100.0	0.0	0.0
50401 Triton	2	1	50.0	100.0	100.0	0.0	0.0
50501 Parkland	10	6	60.0	100.0	83.3	33.3	0.0
50901 Elgin	5	4	80.0	75.0	75.0	0.0	25.0
51001 South Suburban	5	3	60.0	66.7	66.7	33.3	33.3
51101 Rock Valley	2	0	0.0	---	---	---	---
51201 Harper	1	1	100.0	---	100.0	---	0.0
51301 Illinois Valley	1	1	100.0	100.0	100.0	0.0	0.0
51401 Illinois Central	56	29	51.8	100.0	93.1	28.6	3.6
51601 Waubensee	10	8	80.0	100.0	87.5	50.0	12.5
51701 Lake Land	21	12	57.1	91.7	91.7	8.3	8.3
52401 Moraine Valley	14	9	64.3	100.0	77.8	75.0	0.0
52501 Joliet	12	6	50.0	83.3	83.3	33.3	0.0
52601 Lincoln Land	33	25	75.8	92.0	88.0	20.0	12.0
53201 Lake County	13	9	69.2	88.9	88.9	11.1	11.1
53501 Oakton	31	17	54.8	94.1	94.1	35.3	5.9
53601 Lewis & Clark	12	9	75.0	66.7	55.6	44.4	16.7
54001 Heartland	12	8	66.7	100.0	100.0	12.5	0.0
Totals	243	150	61.7	92.5	87.3	27.9	7.7
<b>521205 - BUSINESS COMPUTER FACILITIES OPERATOR</b>							
50301 Black Hawk	4	2	50.0	100.0	50.0	100.0	50.0
50401 Triton	3	3	100.0	0.0	0.0	0.0	100.0
50601 Sauk Valley	1	1	100.0	100.0	100.0	0.0	0.0
50701 Danville	5	5	100.0	100.0	100.0	0.0	0.0
51201 Harper	1	0	0.0	---	---	---	---
51501 Prairie State	1	1	100.0	100.0	100.0	100.0	0.0
51701 Lake Land	4	2	50.0	100.0	100.0	50.0	0.0
Totals	19	14	73.7	78.6	71.4	28.6	23.1

SOURCE OF DATA: Fiscal Year 2001 Occupational Follow-up Data



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Corporate Source:	Publication Date: October 2001

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