

**RESULTS
OF THE
WORKFORCE DEVELOPMENT SURVEY
FOR
COLUMBIA & GREENE COUNTIES**

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EXECUTIVE SUMMARY

- Labor will be one of the most significant factors influencing economic growth during the early 21st century. Areas that provide the quality workforce businesses require will prosper, whereas areas that do not likely will flounder.
- The Columbia - Greene region added more than 3,900 jobs from 1995 to 2000. Of the 30 industries that added more than 50 jobs during this period, 16 paid annual wages above the median (\$26,520) in 2000.
- Respondents hired 2,027 persons during the past year and had 709 vacancies at the time of the survey.
- The tight labor market was evident in that 7 of every 10 openings were considered by employers to be difficult to fill. It has become particularly difficult to fill job openings for sales, and professional, technical and managerial workers.
- Respondents identified “social skill deficiencies” of both job applicants and current workers more frequently than any other kind of skill deficiencies.
- Employers were asked what type of training programs would most benefit their companies; the programs most often noted were in the “general skills” and certain “computer skills” categories.
- The vast majority (210) of the companies who train their current employees do so in house. Other training methods are used much less frequently.
- “Local newspaper” was the most preferred recruitment method used by local businesses. This method was followed by “in-house”, “networking” and the “Department of Labor.”
- The majority of respondents were interested in maintaining contact with the workforce development system to communicate future training needs of their employees and/or to learn about services available through the Columbia Greene Workforce Investment Board. Employers who are interested in maintaining contact with the Board can add their name to the list by sending an e-mail to one-stop@sunycgcc.edu. Employers can also visit our web page at www.columbiagreeneetworks.org to learn about available services.

I. OVERVIEW OF THE LABOR MARKET

Workers! They certainly will be one of the most significant factors influencing economic growth during the early 21st century. Areas that provide the high-quality workforce businesses require will prosper, whereas areas that cannot will likely flounder. As the baby-boom generation begins to age out of the labor force, labor shortages will worsen in the United States and other developed nations of the world. Since it has become increasingly easy to move capital and technology around the globe, companies will go where they can find the skilled workforce they need and will abandon other areas.

The extent to which the Columbia - Greene (CG) region can continue to add jobs will depend largely on its ability to produce the workers these high-wage industries need. The region certainly has the ability to accomplish this task as its public high schools and its community colleges are on par with the best in the nation. However, it is necessary to understand the current and future needs of business in order to accomplish this task. This report will contribute to this understanding.

In recent years, economic growth has been healthy in the CG region. From 1995 to 2000, this region added more than 3,900 jobs, according to New York State Department of Labor data. Although these gains were concentrated in the services industry division, all industry divisions except mining were represented among the high-growth industries. Ten of the 30 industries that added 50 or more jobs from 1995 to 2000 were in the services division. These included hotels and motels, miscellaneous amusement and recreation services, nursing and personal care facilities, elementary and secondary schools, and management and public relations services, among others. Industries that added 50 or more workers, other than those in the services division, included heavy construction (except roads), drugs (manufacturing), household appliances (manufacturing), telephone communications, and savings institutions. A complete list of these high-growth industries can be found in Appendix A.

Much of this employment growth occurred in high-wage industries. Of the 30 industries that added 50 or more jobs during this period, 16 paid average wages higher than the median for all industries combined (\$26,520 per year) and five paid more than \$35,000 per year in 2000.

While the growth industries are driving the demand for new workers, replacement workers are even more in demand since, for all industries combined, vacancies arising from replacement needs far exceed those arising from growth needs. Retirements, promotions, and out-migration all make it necessary to replace employees. Furthermore, replacement needs will grow as the baby-boom generation nears retirement age.

TABLE 1. DISTRIBUTION OF JOBS BY OCCUPATIONAL CATEGORY COLUMBIA - GREENE REGION AND NEW YORK STATE 1998		
Occupational category	Percent of total jobs	
	C-G region	New York State
All occupations (number)	32,280	8,880,700
Managerial and administrative	7%	7%
Professional and technical	17	24
Sales and related	10	12
Clerical and administrative support	16	19
Service	23	18
Agriculture, forestry, and fishing	1	1
Production/construction/operators/maintenance/ materials handling	26	19

Data from the Department of Labor's 1998 Occupational Employment Statistics survey provide a detailed look at the distribution of occupations in the C-G region. (See Table 1.) Approximately 26 percent of the jobs in the C-G region are production/construction/operators/maintenance/materials handling occupations. (This compares to 19 percent for New York State.) The high concentration of Production/construction/operators/maintenance/materials handling service occupations in the C-G region (well above statewide averages) indicates there will be strong demand for workers in these occupations.

Much has been said about the need to replace retiring health care and education professionals. A similar need exists with regard to blue-collar workers. The lack of new entrants into these occupations has pushed the median age of workers in the construction and manufacturing industries to above-average levels. Soon many of these workers will reach retirement age. Due to rapid advances in technology, the skills required in many of the blue-collar occupations (for example, machinists) have changed dramatically in recent years. Workers in such fields require much higher levels of training than in the past.

While ongoing data collection at the New York State Department of Labor provided an excellent overview of the labor market, certain information gaps remained. The Columbia - Greene Workforce Development Survey was conducted to fill in some of these gaps by capturing information about job vacancies, skill deficiencies, training needs and other topics.

II. COLUMBIA - GREENE WORKFORCE DEVELOPMENT SURVEY

The Columbia - Greene Workforce Development Survey was conducted during the fall of 2001. A sample of nearly 1,200 firms was drawn from the New York State Department of Labor's Unemployment Insurance employer database, canvassing all employers that had 5 or more employees. The initial mailing was sent to all employers in the sample. A variety of print advertising was used to encourage employers to complete the survey. After the first month, additional print advertising was conducted and a second survey was sent to businesses that had not yet responded. Ultimately, 246 firms answered the survey for a 21 percent response rate. Total employment at these respondent firms numbered over 9,500 or 27 percent of all jobs in the two-county region.

Analysis of the Columbia - Greene Workforce Development Survey follows.

A. HIRING TRENDS

Respondents to the Columbia - Greene Workforce Development Survey hired 2,027 persons during the past year, had 709 current vacancies at the time of the survey, and planned to hire 984 workers in the coming year. The relatively low number of new hires anticipated in the coming year was not unexpected, as it is much easier to count past hiring transactions than to anticipate new hiring needs. Turnover, changing business conditions, rapid changes in technology, and the tight labor market can cause uncertainty in projecting the demand for human capital.

The information obtained about hiring was segregated into five broad occupational categories as follows:

Professional, technical and managerial. This group includes occupations that typically require formal post-secondary education. Some job titles in this category are accountants, computer programmers, engineers, technicians, managers, nurses and systems analysts.

Sales. This category typically requires a high school diploma and/or specific job-related experience. Job titles include cashier, retail salesperson, sales representative and telemarketer.

Administrative support. These occupations are mostly clerical and require a high school diploma and/or specialized skill training (such as computer applications). Job titles include clerks, secretaries, computer operators and bookkeepers.

Service. Occupations in this group, which includes a high concentration of entry-level jobs, frequently require a high school diploma. Job titles are janitors/cleaners, medical/dental assistants, security guards, home health aides and food preparation workers.

Blue collar. Many of these occupations require job-specific training and a high school diploma. Job titles include machinists, assemblers, machine operators, maintenance repairers, electricians, carpenters, plumbers, truck drivers and laborers.

Survey results indicate that the largest share of hiring occurred in blue-collar occupations (38 percent of all openings), followed closely by service occupations (29 percent). Hiring in the professional, technical and managerial occupations category (13 percent) took place at a much lower rate than this category’s share of total employment (24 percent).

Expectations for hiring in the coming year were similar in the service (35 percent of all openings) and blue-collar (24 percent) occupations. These two occupational categories will account for the majority of the hiring expected during the coming year. (See Table 2.)

Occupational category	During past year		Current vacancies		Expected hires during coming year	
	Number hired	Percent of total	Number of openings	Percent of number	Number of hires	Percent of total
Total, all occupations	2,027	100%	709	100%	984	100%
Professional, technical, managerial	263	13	101	13	124	13
Sales	275	14	83	12	154	16
Administrative support	126	6	160	23	122	12
Service	596	29	160	23	235	24
Blue collar	767	38	205	29	349	35

The tight labor market was evident across the spectrum of occupational groups. Approximately 9 of every 10 openings at the time of the survey were either “somewhat” or “very” difficult to fill. Sales positions (100 percent) were the most difficult to fill, and service positions (78 percent) were the least difficult.

It was extremely more difficult to fill openings at the time of the survey than to fill vacancies during the prior year. (See Table 3.)

TABLE 3. PERCENT OF JOB OPENINGS CONSIDERED DIFFICULT TO FILL BY OCCUPATIONAL CATEGORY COLUMBIA - GREENE REGION		
Occupational category	During past year	Current vacancies
Total, all occupations	71%	86%
Professional, technical, managerial	75	94
Sales	82	100
Administrative support	57	79
Service	68	78
Blue collar	73	82

B. SKILL DEFICIENCIES AND TRAINING NEEDS

Jobs are becoming more demanding and more complex. Today, businesses need workers who can learn new skills and work in teams. Today's workers must be creative and responsible problem solvers and possess the skills and attitudes on which employers can rely.

A major goal of this survey was to gain a better understanding of the skill deficiencies of both job applicants and incumbent workers. The survey also attempted to identify the types of training programs that would most benefit local employers. This information can serve as an impetus for developing needed training programs.

Skill Deficiencies

The survey targeted three skill areas and distinguished between the needs of job applicants and incumbent workers. The skill areas were defined as follows:

Basic skills. These include the ability to read and understand; communicate verbally and in writing; perform basic math computations; listen and respond to verbal messages; and learn new skills.

Social skills. These include proper appearance, attendance and attitude; the ability to work in group settings; and personal qualities such as responsibility, self-esteem and integrity/honesty.

Job-specific skills. These include the technical knowledge needed to operate equipment and follow processes/procedures; the ability to manage, organize and motivate workers; and the ability to harness computer technology and software applications.

Employers found approximately 2 in 3 job applicants deficient in social skills. These skills are not easily taught, but rather are developed throughout our lives. Many of these values and skills are learned from family, friends and life circumstances.

Approximately 58 percent of all respondents found new applicants lacking in job-specific skills. Technical skills were most often noted as the job-specific skills in which applicants were deficient. Computer skills were not far behind. One-third of the responding businesses found applicants deficient in basic skills. (See Table 4.)

TABLE 4. EMPLOYERS INDICATING SKILL DEFICIENCIES AMONG APPLICANTS COLUMBIA - GREENE REGION			
Industry	Percent of respondents indicating deficiency by skill category		
	Basic skills	Social skills	Job-specific skills
Total, all industries	33%	64%	58%

According to the survey, 77 percent of all the respondents indicated that their new hires required additional training. There was some variation around the level of new hires that required training. Fourteen percent of the respondents felt that none of their new hires needed additional training while 58 percent of the respondents felt that at least half of their new hires were not adequately prepared.

Twenty percent of employers stated that their current (incumbent) workers did not have all of the skills and competencies required to perform their jobs. 13% were found to be deficient in job-specific skills. Fifteen percent of current workers were deficient in social skills, while only 7 percent were found to be deficient in basic skills. Among job-specific skills, employers found their current workers to be most deficient in computer and technical skills, the same categories in which job applicants were found to be most deficient. (See Table 5.)

TABLE 5. EMPLOYERS INDICATING SKILL DEFICIENCIES AMONG CURRENT WORKERS COLUMBIA - GREENE REGION			
Industry	Percent of respondents indicating deficiency by skill category		
	Basic skills	Social skills	Job-specific skills
Total, all industries	7%	15%	13%

Most Requested Skills Training

The survey asked employers to indicate the type of skills training they felt would most benefit their company at the time of the survey and a year or more from then. Although slightly more respondents indicated a need for current training than future training, there was no appreciable difference in the type of training needed.

Training programs were categorized into six major groups: general skills, management and supervisory skills, business growth skills, technical skills, computer skills and environmental skills/certification (see Appendix B).

The training programs most in demand were concentrated in the general skills category. Interpersonal/verbal communications was the most often-referenced skill training. As more firms move to a team oriented business model and decision-making options are given to front-line staff, it is not surprising that firms feel the need for training of this kind. Other general skills in demand were problem solving/decision making, workplace ethics, team building and workplace preparedness. The business growth skills training most in demand were Total Quality Management and Quality Improvement Teams. These skills needs are closely related to the needs expressed in the previous group.

The technical skills training listed in the survey were especially targeted at the manufacturing industry division. Respondents who represented nonmanufacturing industries reported little need for these programs. This explains the relatively low percentages of firms needing such skills. Because of the deficiencies manufacturers noted in both their job applicants and their current workers, it is essential to identify these training needs. The most requested training programs by manufacturers, in order of frequency, were blueprint reading, precision measurement and gauging and machine operation.

The computer is a driving force in today's economy, and computer literacy is always mentioned as one of the most important skills workers must have. The top computer skill needs identified by this survey were the most basic ones: Windows and office software. AutoCAD and HTML followed.

Economic growth and environmental protection can no longer be mutually exclusive goals. Therefore, in many firms it is important for employees to be able to deal with the environmental impact of the firm's activities. The most frequently needed environmental skills/certification programs were hazardous materials/pollution prevention, Right-to-Know, lockout and tagout, and HazMat.

Training Methods

The survey identified the methods of training the respondents most frequently used. Of the respondents who indicated a training method, the vast majority used in-house training (210). A much smaller number of companies used other methods. Sixty respondents used private training academies to provide training for their workforce. Eight out of ten respondents used public training facilities (community colleges, four-year colleges and universities, high schools and BOCES/VOTEC). Businesses may not be informed of the job-specific training services public training facilities and the workforce development system can provide. (See Table 6.)

TABLE 6. TRAINING METHODS USED BY RESPONDING FIRMS COLUMBIA - GREENE REGION	
Methods	Number using method
In-house (on-the-job training)	210
Four-year college/university	16
High school	26
Department of Labor	3
Workforce Investment	7
Community college	26
BOCES	12
Internet	12
One-Stop Center	0
Union	1
Private training academy	60
Private job placement	2
Other (specify)	17

C. RECRUITMENT

Recruitment Methods

Understanding how local businesses secure the human capital they need is critical to establishing and maintaining a successful workforce development system. Information on how and when employers recruit, and the degree to which they use part-time and temporary workers, is necessary in order to implement an effective local training system.

Local newspaper advertisements were most frequently used to secure workers (164 respondents), followed by in-house recruitment (94) and networking (90). Sixty-one respondents used the Department of Labor for recruitment while forty-five respondents used community colleges. (See Table 7.)

TABLE 7. RECRUITMENT METHODS USED BY RESPONDING FIRMS COLUMBIA - GREENE REGION	
Methods	Number using method
In-house (on-the-job training)	94
Local newspaper	164
Networking	90
Department of Labor	61
Community college	45
BOCES	14
Four-year college/university	37

TABLE 7. (Cont.) RECRUITMENT METHODS USED BY RESPONDING FIRMS COLUMBIA - GREENE REGION	
Methods	Number using method
Internet	40
Private job placement agency	22
High school	37
Workforce Investment	10
Union	2
Private training academy	5
VESID	7
Other (specify)	28

It is clear that local businesses use many different sources when recruiting labor. If businesses were to place all their openings in a regional job bank that could be accessed by all employment and training organizations, the exposure of the openings would be enhanced. Furthermore, an analysis of the job openings in the regional job bank would provide local employment and training organizations with a current and complete understanding of the local demand for labor.

Commuting Patterns

Knowledge of commuting patterns is important to understanding the local labor market. Survey respondents indicated that the majority of jobholders in the Columbia – Greene region (72 percent) resided in the region. Jobholders who were not local residents primarily lived in other counties in New York State. Outside the Columbia - Greene region, Albany County provided the greatest share of workers to the area. Albany County residents filled nearly 1 of every 10 jobs in the Columbia - Greene region. To provide better services to businesses in the local area, relationships should be developed and/or maintained with organizations in Albany County and other areas such as Rensselaer, Dutchess and Ulster that supply a significant share of workers.

Only 4 percent of jobholders in the Columbia - Greene region lived in states other than New York. (See Table 8.)

TABLE 8. DISTRIBUTION OF JOBS BY JOBHOLDERS PLACE OF RESIDENCE			
Industry	Percentage distribution of workers by residence		
	Columbia - Greene	Rest of NYS	Outside NYS
Total, all industries	72%	24%	4%

Commuting information derived from this survey differs from data obtained from the 1990 Census. The latter indicates that 85 percent of jobholders in the Columbia - Greene region lived in the area, 1 percent of jobholders lived outside New York State, and 2 percent lived in the state but outside the two-county region. Commutation data from the 2000 Census are not yet available, but it appears that travel-to-work data from

this survey may not reflect commutation patterns of all workers in the local labor market, or that a significant change has occurred over the last 10 years.

D. ALTERNATE WORK ARRANGEMENTS

Full-time and Part-time Workers

According to survey respondents, 72 percent of workers in the Columbia - Greene region had full-time jobs. Nationally, over 80 percent of workers hold full-time jobs. Full-time work is defined as regularly working 35 or more hours per week. (See Table 9.)

According to March 2002 data from the U.S. Department of Labor, Bureau of Labor Statistics, more than 4 out of 5 people working part-time elected to do so because of their preference for part-time schedules. These workers included persons with family obligations, students and retirees.

TABLE 9. DISTRIBUTION OF FULL- AND PART-TIME WORKERS COLUMBIA - GREENE REGION		
Industry	Full-time workers	Part-time workers
Total, all industries	72%	28%

To maximize the supply of part-time workers, employers must remove barriers that limit labor market participation and provide work incentives. Flexible child-care and transportation services must be available to enable more people to work flexible schedules. In a related survey question, 21% of respondents indicated that at least some of their job applicants were unable to accept or keep a job due to lack of transportation or child care. Businesses could consider flexible schedules as a way to encourage more people into part-time work and to draw part-time workers with other obligations into full-time positions. Also, higher hourly wages in lieu of benefits might encourage secondary wage earners who are covered by their spouse's benefit packages to enter the workforce.

Temporary and Permanent Workers

According to survey respondents, employers considered more than 9 out of 10 of their workers to be permanent employees. (See Table 14.)

TABLE 14. DISTRIBUTION OF PERMANENT AND TEMPORARY WORKERS BY INDUSTRY COLUMBIA - GREENE REGION		
Industry	Permanent	Temporary
Total, all industries	91%	9%

E. FUTURE COMMUNICATION

Economic growth in Columbia and Greene counties has boosted the demand for labor. The Columbia - Greene Workforce Development Survey provided useful information regarding business needs in the region. Continued communication between businesses, the Columbia - Greene Workforce Investment Board, the Department of Labor, educational institutions, job developers, and others involved in economic and workforce development is crucial to ensure that the local region has the skilled workforce necessary to meet future challenges.

Of the employers who responded to the survey, a total of 58% expressed an interest in maintaining contact with the Columbia Greene Workforce Investment Board. 110 indicated they would participate in future e-mail communication, and 63 indicated they would participate in telephone communication. Seventy-four employers were interested in being notified when worker-training grants become available either locally or through New York State. This survey is the beginning of developing a cost-effective method of obtaining and communicating workforce needs information in the twin counties. Employers who did not participate in this survey, but would like to become part of this effort can e-mail us at: one-stop@sunycgcc.edu.

Employers can also visit our web page at www.columbiagreeneetworks.org to learn about services available through the workforce development system.

Appendix A

EMPLOYMENT AND WAGES IN GROWING* INDUSTRIES

Columbia - Greene Region

Industry	Employment change 1995 to 2000		Weekly wages, 2000 (\$)
	(Number)	(Percent)	
General government	466	22.4	437.09
Residential care	354	55.5	535.75
Telephone communications	325	99.7	933.84
Elementary and secondary schools	322	11.4	646.24
Animal specialties	na	na	na
Heavy construction, except highway and street	217	285.5	866.77
Individual and family social services	190	127.5	328.57
Household appliances (Manufacturing)	na	na	na
Personnel supply services	148	422.9	251.44
Local and suburban passenger transportation	128	140.7	284.02
Public order and safety	113	7.2	930.75
Misc. amusement and recreation services	110	15.7	311.08
General building contractors – residential bldg.	99	50.5	406.97
Wood buildings and mobile homes	na	na	na
Misc. electrical machinery (Manufacturing)	na	na	na
Savings institutions	92	28.3	777.80
Misc. health and allied services	84	75.0	512.75
Drugs (Manufacturing)	82	38.7	650.60
Air Transportation, scheduled, and air courier	na	na	na
Hotels and motels	75	12.7	229.01
Management and public relations services	70	116.7	952.76
Miscellaneous durable goods	69	50.0	531.09
Lumber and other building materials dealers	69	26.7	563.39
Miscellaneous special trade contractors	64	43.2	443.93
Administration of general economic programs	na	na	na
Nursing and personal care facilities	59	4.8	404.99
Plumbing, heating and air-conditioning	58	45.0	518.65
Drugs, drugs proprietaries & druggists' sundries	na	na	na
Services to dwellings and other buildings	52	104.0	313.59
Veterinary services	51	61.4	396.20

* Growing industries are those that added 50 or more workers from 1995 to 2000.

n.a. Not available.

Appendix B

MOST BENEFICIAL SKILLS TRAINING

Columbia - Greene Region

Skills category	Percent of Businesses that could benefit from training this year	Percent of Businesses that could benefit from training in next year or more
General skills		
Team building	32%	24%
Self-directed work teams	20%	15%
Problem solving/decision-making	36%	24%
Workplace ethics	35%	24%
Workplace preparedness	30%	20%
Interpersonal/verbal communications	39%	28%
Written communications	23%	17%
Workforce diversity	13%	10%
Basic grammar, punctuation, spelling	15%	7%
English as a second language	4%	3%
Basic math	15%	8%
Business growth skills		
Total Quality Management (TQM)	10%	10%
Zenger-Miller (TQM)	1%	1%
Statistical Process Control (SPC)	2%	2%
Quality Improvement Teams	7%	7%
ISO Certification	2%	2%
International trade (export/import)	0%	2%
Technical skills		
Blueprint reading	7%	4%
Micrometer reading	2%	2%
Geometric dimensioning and tolerancing	2%	2%
Precision measurement and gauging	5%	4%
Electronic soldering/assembly	2%	0%
Shop math	6%	2%
Process failure mode analysis	1%	1%
Design failure mode analysis	0%	0%
Cell design	0%	1%
Flow manufacturing fundamentals	2%	2%
Design for manufacturing assembly	2%	1%
Machine operation (specify)	5%	2%
Machinist training (CNC)	2%	1%

Skills category	Percent of Businesses that could benefit from training this year	Percent of Businesses that could benefit from training in next year or more
Computer skills		
Windows	27%	19%
Auto CAD	4%	3%
HTML	2%	3%
Office software	23%	15%
Programming languages	2%	2%
Pascal	0%	0%
C/C++	0%	0%
Visual Basic	1%	2%
Lotus Notes	2%	2%
Java	0%	1%
Environmental skills/certification		
Wastewater treatment plant operator certificate	2%	2%
HazMat	8%	5%
HazWoper	0%	0%
QS9000	0%	1%
Water chemistry lab procedures	1%	2%
Grade C/B water operator	0%	0%
Right-to-Know	9%	7%
Fall protection	6%	4%
Lockout, tagout	9%	7%
Confined space standard	4%	2%
Hazardous materials/pollution prevention	13%	9%