

Central Virginia Community College

Employer Needs Assessment

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Prepared by

Public Policy Associates, Incorporated



Public Policy Associates, Incorporated is a public policy research, development, and evaluation firm headquartered in Lansing, Michigan. We serve clients in the public, private, and nonprofit sectors at the national, state, and local levels by conducting research, analysis, and evaluation that supports informed strategic decision-making.

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Introduction

As part of Governor Northam’s Get Skilled, Get a Job, Give Back (G3) initiative, Central Virginia Community College (CVCC) and the G3 Career-Technical Education Academy Planners worked with Public Policy Associates, Inc. to develop and field a training and skills needs survey with local employers. The survey was designed to gather information that would allow the CVCC team to better understand the skills and training that are needed for employment within local industries and better prepare students entering the workforce.

Over five hundred and eighty businesses in the CVCC service area as well as contacts from local workforce boards, education, and local government were invited to share their perspectives through an online survey. Invitations to the survey were also sent out by the Lynchburg Regional Society for Human Resource Management (LRSHRM) and the Lynchburg Regional Business Alliance. In all, 196 employers (approximately 33% of those invited) provided information through the survey.

Demographics

Businesses and contacts that were surveyed surround the CVCC service area, as shown by the area outlined in red in Figure 1. The darker areas of the map represent higher densities of respondents. The area with the highest response rate was around the City of Lynchburg. While some of the respondents provided a zip code from outside the CVCC service area, these responses are still included as respondents may represent businesses located within the service area.

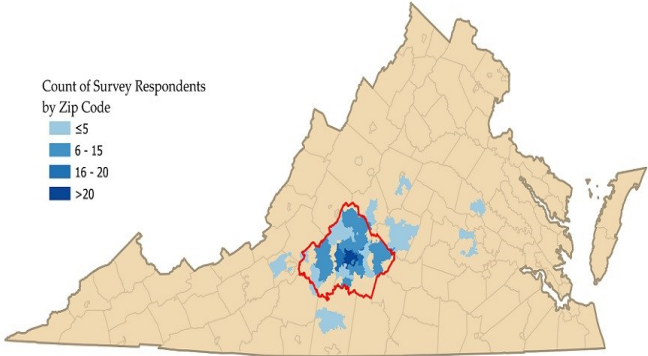


Figure 1. Survey Response by Zip Code

A majority of the respondents are employed in the engineering and manufacturing industry (26%). As shown in Table 1, the sectors with the next greatest representation in the survey came from the health care sector (12%) and federal, state, and local government positions (11%). Construction, public safety, and education all contributed approximately 10% of responses each.

Table 1. Participant Industry Sectors

Industry Sector*	Percentage
Engineering/Manufacturing	26%
Health Care	12%
Government (Federal, State, Local)	11%
Building/Construction Trades (Carpentry, HVAC, Plumbing, Electrical, Etc.)	10%
Public Safety (Law Enforcement, Corrections, Fire, EMS)	9%
Education (K-12 and Postsecondary)	9%
Financial Services/Insurance	7%
Business (Administration, HR, Sales, Marketing, Advertising)	6%
Food & Beverage/Hospitality	6%
Social Services	4%
Information Technology	1.5%

*Percentage does not equal 100% due to rounding.

As seen in Figure 2 below, more than half of the respondents indicated that they currently

are in supervision or managerial roles (32%) or a human resources director/personnel manager position (26%). Other roles described by survey respondents included specialists, assistants, faculty, recruiters and trainers, and coordinators (25%).

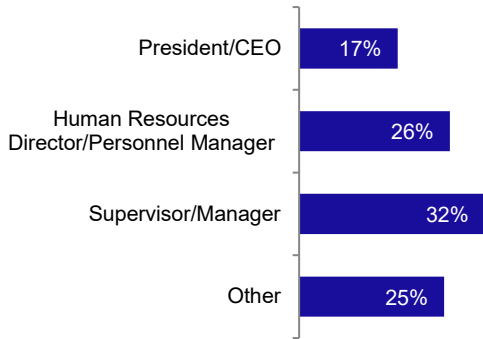


Figure 2. Role in Organization

The pool of respondents leans heavily toward larger companies, with nearly 60% reporting that they work in companies with a capacity of 100 or more employees. As seen in Figure 3, the next largest representation comes from small organizations, with 15% reporting that they are working in a company that has between 1 and 25 employees.

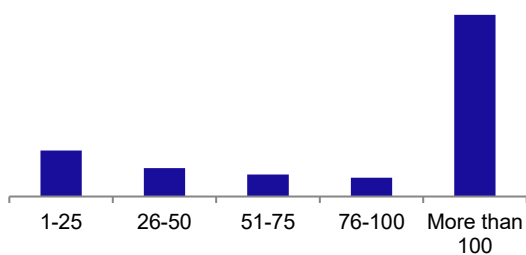


Figure 3. Employment Level of Respondent Firms

Projected Hiring Needs

Industry Testing and Credentials

Although many respondents indicated that taking an industry-specific test prior to employment is dependent on the type of position, 30% indicated that at least some prospective employees are required to take an industry-specific test for employment. Some of the specific industry testing mentioned included:

- Safety, security, and industrial technology
- Welding, mechanics, HVAC, backflow, plumbing, soldering, and construction
- Phlebotomy, lab technology, nursing, radiology, pharmacy technician, and medical coding
- Teaching, law enforcement, and EMT

Some respondents noted that while their organization does not necessarily require industry-specific testing, the company does conduct in-house testing to assess the abilities of the potential employee. Examples of such testing included personality assessments, skilled-trades demonstrations, basic knowledge in math, computers and social media platforms, as well as writing and verbal assessments.

Half of respondents (50%) indicated their organization requires an industry-recognized certification or credential as a condition of their employment. This need was most common within the skilled trades (carpentry, HVAC, plumbing, electrical, building and construction) and health care industries. Among those industries, the following certifications or credentials were listed:

- Journeyman license, HVAC Technician, backflow, and welding certifications
- CPA, CDL, DOT, ACI, NICET and AutoCAD certifications
- EMT and Paramedic, AEMT, ACLS, CPR, and EVOC
- MLT certification, LPN and RN credentials

Education Levels and Skills

Regardless of industry, respondents suggested that finding qualified applicants with an academic associate degree or a CTE diploma or certificate can be difficult. As shown in Figure 4, the weighted averages of the responses—where “a lot of difficulty” =3 and “no difficulty” = 1—indicate that most respondents feel there is only some difficulty finding qualified applicants with the given credentials, with the most difficult being those with an academic associates degree and those with a CTE diploma or certificate.

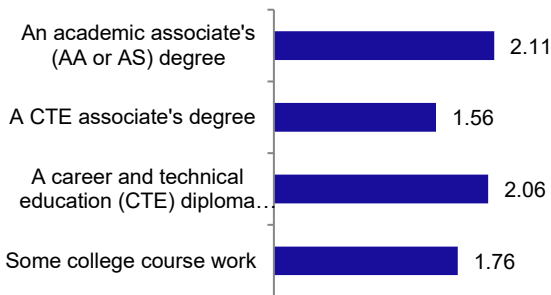


Figure 4. Difficulty Finding Credentialed Candidates in Last 12 Months

Looking two years into the future, a large proportion of respondents (47%) indicated the need for applicants with a CTE diploma or certificate will stay relatively similar to their need now. In fact, across all industries respondents indicated the need for qualified applicants with any level of education will

stay about the same in two years as the need for them today.

Respondents were also asked about challenges finding candidates with certain employability, or soft, skills. Table 2 shows the combined responses for those who reported having a lot of difficulty or some difficulty finding qualified applicants with these skills. Across all industries, respondents indicated that it is most difficult to find employees that have problem-solving skills, occupational knowledge related to the job, the ability to apply their occupational knowledge, and applicants who demonstrate good work ethic. It appears that reading, writing, and computer skills are less of a concern for these employers, but responses indicate that there is room for substantial upskilling of the workforce in most of these areas.

Table 2. Skills Difficult for Organizations to Find Among Applicants (A lot and Some Difficulty)

Skill	Percentage
Problem-solving skills	59%
Application of occupational knowledge related to job	58%
Occupational knowledge related to job	56%
Demonstrates good work ethic	56%
Seeks to continuously improve performance	54%
Accepts advice, supervision, and constructive criticism	54%
Completes work in accordance with quality standards	52%
Organizational skills	49%
Interpersonal skills (one-on-one)	49%
Works effectively within a team or group	49%
Use/operation of equipment, tools, and material (other than computer)	47%
Listening and speaking skills	46%
Customer focused	45%

Skill	Percentage
Math skills	40%
Professional appearance	38%
Computer skills	34%
Reading and writing skills	28%

Training

The majority of respondents (63%) indicated that they primarily utilize in-house staff training to meet their needs for employee training. While it is often a necessity for companies to train new hires in-house on procedures and processes unique to their company, it is costly and time consuming and can negatively impact productivity. The heavy reliance on in-house training among the respondent companies indicates an opportunity for CVCC to develop training that will help companies defray those costs and free up internal staff for other tasks.

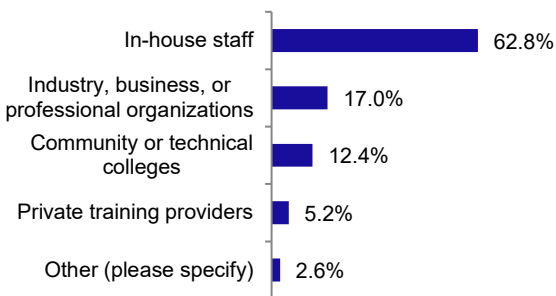


Figure 5. Approaches to Employee Training

In-house training was the most common approach in the Engineering and Manufacturing, Building/Construction Trades, Health Care and Public Safety sectors. Respondents in these sectors also suggested multiple courses and certifications for CVCC to offer. Such courses include the following:

Engineering and Manufacturing

- Electrical Control Engineering
- Software Engineering
- More in-depth electronics courses
- Mechatronics, Industrial troubleshooting, 5Y, 5S

Building/Construction Trades

- Journeyman certification and CTE programs in welding, plumbing, HVAC, and electrical
- Commercial Construction and other construction-related programs
- NCCER trade programs
- AutoCAD, 3D CAD, plan reading, DOT certification

Health Care

- More fast track programs
- Larger respiratory therapy program
- Medical coding and medical entry programs as well as higher-level medical skills programs
- Paramedic, AAS degree in Paramedic

Public Safety

- Criminal justice degrees and DCJS classes

Among the responses, there were also many soft skills and leadership training needs suggested. These may be skills that CVCC might consider for integration into current workforce and academic programming. Some of the needs included were:

- Customer service, professionalism in the workplace, working as a team (being a team player), understanding and responding to leadership
- Time management, fundamentals of business, business communications

- Interpersonal skills, job readiness, and professional appearance
- Leadership skills, public speaking, and communications

employers within the service area feel strongly that CVCC is an asset to the region and respondents strongly agreed that their organization would hire graduates from the college. Respondents mostly agreed that the training and education programs available are meeting their needs and more than half of the employers indicated that they have an interest in hosting interns or apprentices from programs at CVCC.

Perceptions of CVCC

Overall, respondents are positive about the presence of CVCC and what the college currently offers. As shown in Figure 6, the

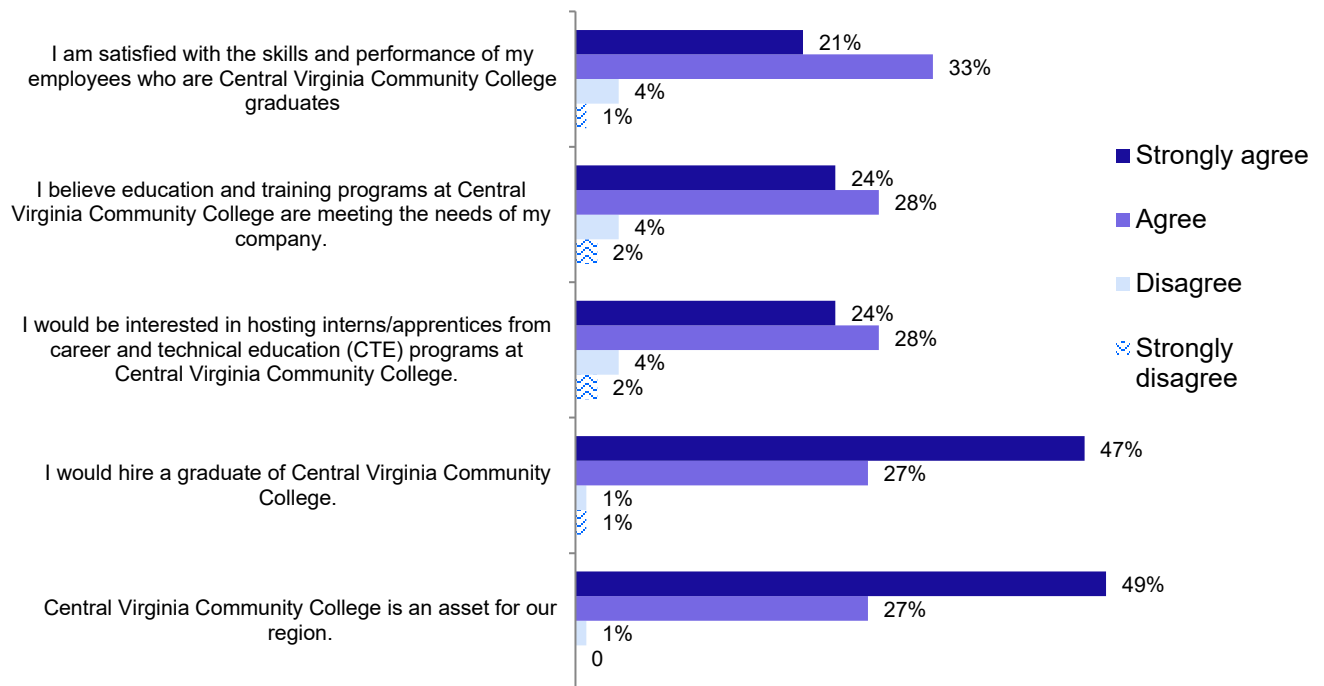


Figure 6. Employer Perceptions of CVCC

Appendix A: Survey Tables

Table 3. Participant Characteristics

Industry Sector*	Number	Percentage
Engineering/Manufacturing	50	26%
Health Care	23	12%
Government (Federal, State, Local)	21	11%
Building/Construction Trades (Carpentry, HVAC, Plumbing, Electrical, Etc.)	21	10%
Public Safety (Law Enforcement, Corrections, Fire, EMS)	17	9%
Education (K-12 and Postsecondary)	18	9%
Financial Services/Insurance	13	7%
Business (Administration, HR, Sales, Marketing, Advertising)	11	6%
Food & Beverage/Hospitality	11	6%
Social Services	8	4%
Information Technology	3	1.5%
Total	196	100%
Role	Number	Percentage
President/CEO	34	17%
Human Resources Director/Personnel Manager	51	26%
Supervisor/Manager	62	32%
Other	49	25%
Total	196	100%
Size of Company (Number of full-time and part-time employees)	Number	Percentage
1 to 25 Employee	29	15%
26 to 50 Employees	18	9%
51 to 75 Employees	14	7%
76 to 100 Employees	12	6%
More than 100 Employees	115	59%
Not reported	8	4%
Total	196	100%

*Percentages may not equal 100% due to rounding.

Table 4. Survey Responses

Which of the following represents your greatest hiring need within the next two years?*	Number	Percentage
Entry-level positions requiring no training	5	3%
Entry-level positions requiring short-term (1-5 day) training	20	10%
Entry-level positions requiring less than one year of training	60	31%
Entry- or mid-level positions requiring one to two years of training	72	37%
Other	31	16%
Not reported	8	4%
Total	196	100%
Are prospective employees of your organization required to take an industry-specific test?	Number	Percentage
Yes	60	31%
No	116	59%
Not reported	20	10%
Total	196	100%
Does your organization require any of its staff positions to hold an industry-recognized credential or certification as a condition of employment?	Number	Percentage
Yes	98	50%
No	78	40%
Not reported	20	10%
Total	196	100%
In the last 12 months, did your organization have any difficulty finding qualified applicants for any of the jobs you were trying to fill?*	Number	Percentage
Yes	144	73%
No	32	16%
Not reported	20	10%
Total	196	100%

*Percentages do not equal 100% due to rounding.

Table 5. How much difficulty has your organization experienced in the last 12 months finding qualified applicants with the different education levels?

Some college course work*	Number	Percentage
A lot of difficulty	10	5%
Some difficulty	38	19%
No difficulty	34	17%
Not applicable	44	22%
Not reported	70	36%
Total	196	100%

A career and technical education (CTE) diploma or certificate	Number	Percentage
A lot of difficulty	26	13%
Some difficulty	43	22%
No difficulty	13	7%
Not applicable	44	22%
Not reported	70	36%
Total	196	100%
A CTE associate degree*	Number	Percentage
A lot of difficulty	23	12%
Some difficulty	26	13%
No difficulty	13	7%
Not applicable	64	33%
Not reported	70	36%
Total	196	100%
An academic associate (AA or AS) degree*	Number	Percentage
A lot of difficulty	17	9%
Some difficulty	54	28%
No difficulty	18	9%
Not applicable	37	19%
Not reported	70	36%
Total	196	100%

*Percentages do not equal 100% due to rounding.

Table 6. How much difficulty has your organization had finding employees with the following skills?

Occupational knowledge related to job	Number	Percentage
A lot of difficulty	44	22%
Some difficulty	67	34%
No difficulty	9	5%
Not applicable	5	3%
Not reported	70	36%
Total	196	100%
Application of occupational knowledge related to job*	Number	Percentage
A lot of difficulty	38	19%
Some difficulty	76	39%
No difficulty	7	4%
Not applicable	5	3%
Not reported	70	36%
Total	196	100%
Use/operation of equipment, tools, and materials (other than computers)*	Number	Percentage
A lot of difficulty	27	14%
Some difficulty	64	33%
No difficulty	13	7%
Not applicable	22	11%

Not reported	70	36%
Total	196	100%
Reading and writing skills	Number	Percentage
A lot of difficulty	8	4%
Some difficulty	48	24%
No difficulty	54	28%
Not applicable	16	8%
Not reported	70	36%
Total	196	100%
Math skills*	Number	Percentage
A lot of difficulty	15	8%
Some difficulty	62	32%
No difficulty	31	16%
Not applicable	18	9%
Not reported	70	36%
Total	196	100%
Computer skills	Number	Percentage
A lot of difficulty	13	6%
Some difficulty	54	28%
No difficulty	43	22%
Not applicable	16	8%
Not reported	70	36%
Total	196	100%
Organizational skills	Number	Percentage
A lot of difficulty	16	8%
Some difficulty	81	41%
No difficulty	20	10%
Not applicable	9	5%
Not reported	70	36%
Total	196	100%
Problem-solving skills	Number	Percentage
A lot of difficulty	34	17%
Some difficulty	82	42%
No difficulty	8	4%
Not applicable	2	1%
Not reported	70	36%
Total	196	100%
Completes work in accordance with quality standards	Number	Percentage
A lot of difficulty	14	7%
Some difficulty	89	45%
No difficulty	17	9%
Not applicable	6	3%
Not reported	70	36%
Total	196	100%

Listening and speaking skills*	Number	Percentage
A lot of difficulty	18	9%
Some difficulty	72	37%
No difficulty	27	14%
Not applicable	9	5%
Not reported	70	36%
Total	196	100%
Interpersonal skills (one-on-one)	Number	Percentage
A lot of difficulty	17	9%
Some difficulty	79	40%
No difficulty	26	13%
Not applicable	4	2%
Not reported	70	36%
Total	196	100%
Works effectively within a team or group	Number	Percentage
A lot of difficulty	10	5%
Some difficulty	87	44%
No difficulty	25	13%
Not applicable	4	2%
Not reported	70	36%
Total	196	100%
Customer-focused	Number	Percentage
A lot of difficulty	20	10%
Some difficulty	69	35%
No difficulty	28	14%
Not applicable	9	5%
Not reported	70	36%
Total	196	100%
Seeks to continuously improve performance*	Number	Percentage
A lot of difficulty	31	16%
Some difficulty	74	38%
No difficulty	17	9%
Not applicable	4	2%
Not reported	70	36%
Total	196	100%
Demonstrates good work ethic*	Number	Percentage
A lot of difficulty	40	20%
Some difficulty	70	36%
No difficulty	13	7%
Not applicable	3	2%
Not reported	70	36%
Total	196	100%
Accepts advice, supervision, and constructive criticism*	Number	Percentage
A lot of difficulty	25	13%
Some difficulty	81	41%

No difficulty	17	9%
Not applicable	3	2%
Not reported	70	36%
Total	196	100%
Professional appearance*	Number	Percentage
A lot of difficulty	17	9%
Some difficulty	57	29%
No difficulty	45	23%
Not applicable	7	4%
Not reported	70	36%
Total	196	100%

*Percentages do not equal 100% due to rounding.

Table 7. To what extent will your organization's needs for employees with each type of education listed below change in the next two years?

Some college course work beyond high school*	Number	Percentage
Increase	52	27%
Stay about the same	94	48%
Decrease	7	4%
Not reported	43	22%
Total	196	100%
A career and technical education (CTE) diploma or certificate*	Number	Percentage
Increase	57	30%
Stay about the same	92	47%
Decrease	4	2%
Not reported	43	22%
Total	196	100%
A CTE associate's degree*	Number	Percentage
Increase	46	23%
Stay about the same	95	48%
Decrease	12	6%
Not reported	43	22%
Total	196	100%
An academic associate's (AA or AS) degree	Number	Percentage
Increase	46	23%
Stay about the same	101	52%
Decrease	6	3%
Not reported	43	22%
Total	196	100%

*Percentages do not equal 100% due to rounding.

Table 8. To meet your employee training needs, do you primarily utilize:

Responses	Number	Percentage
In-house staff	96	49%
Industry, business, or professional organizations	26	13%

Responses	Number	Percentage
Private training providers	8	4%
Community or technical colleges	19	10%
Other	4	2%
Not reported	43	22%
Total	196	100%

Table 9. To what extent do you agree with the following statements?

Central Virginia Community College is an asset for our region.	Number	Percentage
Strongly disagree	0	0
Disagree	2	1%
Agree	53	27%
Strongly agree	96	49%
Not applicable	1	1%
Not reported	44	22%
Total	196	100%
I would hire a graduate of Central Virginia Community College.	Number	Percentage
Strongly disagree	2	1%
Disagree	2	1%
Agree	53	27%
Strongly agree	92	47%
Not applicable	3	2%
Not reported	44	22%
Total	196	100%
I would be interested in hosting interns/apprentices from career and technical education (CTE) programs at Central Virginia Community College.	Number	Percentage
Strongly disagree	3	2%
Disagree	8	4%
Agree	54	28%
Strongly agree	48	24%
Not applicable	39	20%
Not reported	44	22%
Total	196	100%
I believe education and training programs at Central Virginia Community College are meeting the needs of my company.	Number	Percentage
Strongly disagree	4	2%
Disagree	19	4%
Agree	74	28%
Strongly agree	37	24%
Not applicable	18	9%
Not reported	44	22%
Total	196	100%

I am satisfied with the skills and performance of my employees who are Central Virginia Community College graduates*	Number	Percentage
Strongly disagree	1	1%
Disagree	7	4%
Agree	64	33%
Strongly agree	41	21%
Not applicable	39	20%
Not reported	44	22%
Total	196	100%

*Percentages do not equal 100% due to rounding.