

Nuclear Technology and Energy Workforce Strategy

HICKEYGLOBAL ECONOMIC DEVELOPMENT CONSULTING



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ECONOMIC DEVELOPMENT CONSULTING



Executive Summary





Project Background Executive Summary

Hickey Global has developed a Nuclear Technology and Energy Workforce Strategy for the Lynchburg, Virginia region to better understand the community's ability to service current and future needs in the *Nuclear Technology and Energy industry. The resulting study includes an assessment of regional talent* from a combination of employment, industry, skills, and educational data to deliver meaningful insight as to how the Lynchburg Regional Business Alliance can support industry growth.

OUTLINE

- **Executive Summary**
- Key findings and strategic recommendations

Skills Gap Analysis

- 2. Identification of relevant occupations to analyze
- 4. An index of factors that contribute to or mitigate the skills gap of targeted occupations

Student Assessment

- Community data on educational attainment

Definition and assessment of the Nuclear Technology and Energy industry at the 6-digit NAICS level

Measurement of the gap between the Lynchburg region's projected growth and that of the U.S.

Availability and growth of local programs related to Nuclear Technology and Energy occupations





Key Findings Executive Summary

The Nuclear Technology and Energy Workforce Strategy provides a comprehensive perspective on the Lynchburg, Virginia's workforce as it relates to occupations and skillsets in demand by the Nuclear Technology and Energy industry. The first few sections of the study develop industry and occupation definitions to inform the data collection required for a detailed assessment. The attendant analysis begins with benchmarking regional prospects against the national average to identify potential competitive gaps. Gaps are identified on a per-occupation basis, resulting in a list of "targeted occupations" that are then reviewed in detail to classify the various factors that contribute to or detract from corresponding talent pipelines. These push and pull factors are critical for the Lynchburg Regional Business Alliance to understand in order to develop a sustainable workforce strategy that can support future growth expectations for the Nuclear Technology and Energy industry.

KEY FINDINGS

Labor Availability

The Lynchburg, Virginia region remains a competitive option for the Nuclear Technology and Energy industry due to a highly concentrated and qualified workforce. In particular, production occupations—which make up the largest share of industry demand—are a distinct regional strength with positive growth prospects. Engineering is another competitive advantage for the Lynchburg region, with high concentrations of qualified talent capable of servicing high-tech industries.

Obstacles to Growth

In each of the three occupation categories (Production, Engineering and Technical, and Corporate), there are certain occupations and skillsets that are at risk of creating skills gaps over the next five years. Additionally, certain occupations that will grow in demand due to digital transformation—such as Software Developers and other technically-focused jobs—are not current competitive strengths in the region and must be prioritize in future strategic work. At the macro level, losses in regional employment must be addressed to retain young workers and graduates within the region.

Future Pipeline

The region's strengths are sustained by local educational institutions that provide a sustainable source of talented workers across each of the occupation categories. These graduates and certificate-seekers must be actively incentivized to remain in the community to offset potential challenges due to an aging workforce and movements in the regional population. The study also shows the higher expectations of talent and skill acquisition of the local Nuclear Technology and Energy industry, further reinforcing the need for strong partnerships between economic development and workforce providers.





Skills Gap Analysis Methodology

Our Process

Hickey Global has developed a comprehensive, data-driven process to a) identify specific occupations and skills that contribute to the success of the Nuclear Technology and Energy industry and b) indicate potential competitive gaps in the Lynchburg region's future workforce capabilities. The process progresses in four stages highlighted below.

Step 1: Industry Growth Assessment

industry inputs, and technical support services.

Step 2: Demand for Labor

related occupations will be most in-demand and therefore have the highest impact on future economic growth.

Step 3: Gap Analysis

projections. The skills gap is the differential in occupation growth between the community and the national average.

Step 4: Skills Gap Index

career pathways, and educational achievement.

Note: Data analyzed in the study is derived from Lightcast unless noted otherwise.

Using industry research tied to the Lynchburg region's current and projected growth, the study defines the Nuclear Technology and Energy industry according to 6-digit NAICS codes. This definition is divided into three categories: primary Nuclear Technology providers, extended

Using national staffing patterns (the occupational makeup of the Nuclear Technology and Energy industry), Hickey Global identifies which

Hickey Global benchmarks industry and occupation performance in the Nuclear Technology and Energy industry against national growth

Having identified occupations for analysis as well as their respective competitive gaps in step 3, identify the various factors that contribute to the growth or decline for each occupation (and/or occupation group) to determine potential strategies for workforce development,





Strategic Recommendations Executive Summary

Based on the Skills Gap Analysis, Student Assessment, and all relevant findings, Hickey Global recommends the following workforce strategies for the Lynchburg Regional Business Alliance to consider. Many of the recommendations involve increased partnership with external organizations and collaborative actions that benefit from shared resources and phased implementation. Together, the recommendations would result in a community-wide commitment to improving job awareness and increasing access to resources for individuals to acquire the skills required for the Nuclear Technology and Energy industry.

Enhanced Education Partnerships

Through various educational institutions and training providers, the Lynchburg, Virginia region is capable of supporting a robust talent pipeline across industries and occupations. These strengths can be further solidified by leveraging the Lynchburg Regional Business Alliance's unique access to local industry to inform institutional decisions on curriculum, program development, or private-public agreements. In addition to acting as liaison between educational institutions and industry leaders, the Alliance can scale current efforts to support the growth of the Central Virginia Community College's Career and Technical Education Academy by surveying local training providers on current and future needs and building a corresponding timeline of advocacy programs based on community timelines and organizational capacity. As an additional benefit, survey results can be collated to generate a list of existing training programs within the region that can serve as a foundation for future workforce development programs. By extending the survey to local industry, the Alliance can capture any corporate training programs made available by businesses in the Nuclear Technology and Energy industry. Benchmarking the skills highlighted in this study against existing programs can indicate potential gaps that can be addressed through WIOA funds, corporate investment, or other collaborative sources of funding.

Each of these efforts require standardized channels of communication between economic development and external partners which can be developed through a regional workforce development committee or an existing platform. Results from the Nuclear Workforce Strategy and Skills Gap Analysis can be shared to demonstrate areas of opportunity for future collaboration.

At the regional level, the Alliance can encourage institutional economic development by working with partners to pursue EDA and other federal grants to generate research activities and knowledge transfer for the Nuclear Technology and Energy industry. Increased funding can yield additional throughput for vital programs as well as increased connectivity between private and public partners.







Strategic Recommendations Continued

Talent Retention and Recruitment Program

In addition to traditional business development activities, economic developers are increasingly finding value in collaborating with workforce development partners to invest in talent retention and recruitment programs. Companies throughout the U.S. continue to experience challenges finding qualified talent, and successful communities have responded by integrating economic and workforce development, job centers, and local industry efforts to create a proactive environment for resource pooling and prioritization.

Talent attraction has taken a variety of forms in recent years, from directly marketing to competing regions to generating "brand awareness" of a community's particular value proposition. Because of the high degree of specialization required by the Nuclear Technology and Energy industry, more targeted efforts for qualified workers is more likely to generate positive outcomes over a broad-based marketing campaign. Constructing a target audience based on the Nuclear Technology and Energy workforce can guide efforts to build a promotional campaign that can reach the individuals and families most likely to contribute to regional growth. Additionally, marketing industry-specific data in a career portal or job placement platform is a powerful tool to streamline workforce development activities and provide a comprehensive narrative on the Lynchburg region's strengths.

For the Lynchburg region, talent retention is an equally important pillar of economic success. Replacing workers who leave for opportunities outside of the region is a costly endeavor made more challenging by the unique mixture of skills and qualifications expected by the Nuclear Technology and Energy industry. Talent retention efforts require close collaboration with local industry to ensure that corporate culture, quality of life, and other amenities and services are in line with changing expectations. Meet-and-greet or matching opportunities between local job-seekers and businesses are a useful tool for assessing the alignment between young workers and industry requirements. Another staple of talent retention efforts is upskilling through career pathway development, which is explored further below.









Strategic Recommendations Continued

Upskilling & Career Pathways

As shown in the Skills Gap Index and Student Assessment portions of the study, there are many opportunities for using existing academic and training programs to upskill workers currently in the Nuclear Technology and Energy or related industry. Upskilling allows the local workforce to pursue continued professional development and acquire additional value from their employment through higher wages and creative roles. Career pathways can also help provide workers a clear vision of growth opportunities within the region, increasing the likelihood of employees remaining in their industry. For this reason, upskilling is an essential component of any talent retention strategy. The Lynchburg Regional Alliance can continue to lend support to upskilling and career pathway efforts by a) working with industry partners to generate interest for further skill acquisition and b) investing in or advocating for wraparound services for interested parties. Often, employees eligible for professional development are unable to do so because of various cost factors such as missed wages, transportation, or childcare. Wraparound services can help mitigate costs or provide direct financial assistance for skill seekers. Within the Lynchburg region, Virginia Career Works—Central Region manages the Central Virginia Workforce Development Board and uses WIOA funding to support workforce development through wraparound services and other initiatives to introduce services to residents who face barriers to employment. The organization is a longstanding partner to efforts conducted by the Lynchburg Regional Alliance and can be relied upon to support programs for the Nuclear Technology and Energy industry.

Largely provided by workforce boards, upskilling programs typically start as small pilot efforts that can flexibly allocate funds based on identified needs. The Alliance can support these efforts and align them with careers that will be in high demand from the Nuclear Technology and Energy industry. Direct investment in the local workforce provides distinct benefits to both employers and employees while recognizing the value of the local workforce.









Strategic Recommendations Continued

K-12 Career Awareness

Finally, workforce development organizations are taking a larger interest in the K-12 system as "traditional" career and skill pathways are changing in the face of emerging market needs. With certain in-demand jobs no longer requiring a college degree, it is incumbent on the schools and community leaders to communicate the opportunities available to high school graduates who pursue alternative training opportunities. Hightech manufacturing is particularly reliant on K-12 awareness, as generational stigmas around production occupations can drive interested students into other careers.

The Lynchburg Regional Alliance has made strides in bridging the gap between K-12 and industry with programs such as LYH Intern Connect and the Worlds of Opportunity Career Exploration. Additional strategies could include internship or on-the-job school opportunities in the Nuclear Technology and Energy industry as well as marketing campaigns for industry-specific careers and skillsets. Many communities have also found success by bringing teachers to factory floors and production facilities to educate them on current practices and create advocates within the school system itself. Increased awareness can result in a larger source of workers to meet future industry needs while encouraging students to explore meaningful career opportunities within their home town.





Following the data analysis, Hickey Global conducted one-on-one interviews with the Lynchburg Region's key Nuclear Technology and Energy companies. Participants included individuals from BWX Technologies, Delta Star, and Framatome, chosen to share their expertise in talent acquisition and skill development. Hickey Global and the Lynchburg Regional Business Analysis developed a set of questions that addresses regional factors impacting the past and future growth of the industry, the results of which are summarized in the following pages. The interviews corroborated findings from the desktop research and provided considerable insight into the opportunities and challenges facing the Lynchburg region's ongoing relationship with the Nuclear Technology and Energy industry.

How do you expect the nuclear technology and energy industry will change over the next five years?

Each of the participants expressed clear expectations of future growth for the industry. Increased demand for power and the successful realization of bids has created the need for additional headcount in the region, leading to shifts in hiring strategies and brand awareness. The anticipated employment needs will range from skilled trades and other technical workers to professional engineering roles.

What factors have contributed to your business's success in the Lynchburg region?

Each of the companies has a longstanding legacy within the Lynchburg region. Decades of successful operations have built local interest and trust in the Nuclear Technology and Energy industry, leading to multiple generations of workers who take pride in the work and the impact it has on their community. The ongoing development of specialized knowledge and expertise has enabled the companies to build a reputation for quality work that would be difficult to conduct anywhere else.

The companies have also found success by reinvesting in their workforce and competitive positioning. Competitive wages and benefits packages allow for comprehensive talent recruitment efforts on a large geographical scale, supplementing local labor capabilities with best-in-class employees in other markets.





Who do you see as your primary workforce partners in the region?

The participants identified a wide range of partners who contribute to their ongoing success. A major emphasis was placed on engineering schools in and around the area, such as Randolph University Liberty University, Sweet Briar College, Virginia Tech, the University of Virginia, and the Virginia Commonwealth University. Central Virginia Community College was highlighted for their Nuclear Technology program, as was Danville Community College. The K-12 system was recognized as a vital component of the industry's overall, with active pipelines being maintained through high school visits and relationship-building. Finally, economic development partners include the City of Lynchburg, the Lynchburg Regional Business Alliance, and the Virgina Economic Development Partnership.

What strengths does the Lynchburg region possesses that sets it apart from competitors?

The Nuclear Technology and Energy industry benefits from the region's mature ecosystem. The prevalence of manufacturing companies in and around Lynchburg is coupled with a strong manufacturing workforce. These strengths are further supported by innovative educational facilities that offer specialized skilled trade programs and training.

Quality of life was identified as a critical component for talent recruitment efforts. Participants mentioned that the region offers a family-oriented community with a range of outdoor activities. One participant mentioned that it is easy for prospective employees to "get excited" about Lynchburg upon visiting. While the region may be a difficult sell for those looking for a "big city" experience, the low cost of living paired with proximity to Washington D.C. and other cities on the East Coast allows for an active lifestyle with accessible amenities.

Which workforce skills are lacking in the area?

Due to the complexity of the tasks required by the industry, workers with nuclear-specific skills and experience can be difficult to find. This gap is experienced across the trades, manufacturing positions, and engineering roles alike. Other technical needs include software developers, quality inspectors, and nuclear-capable machinists and welders.





Depending on the discipline, engineers can also be difficult to hire. While mechanical and electrical engineers are prevalent, welding engineers, fire safety, and nuclear technology engineers are more specialized and therefore less common. To combat this, the participants conduct extensive talent recruitment efforts and specialized training to acquire the best engineering talent available. Outside of technical skills, the participants noted a growing need for attributes such as leadership and employment maturity. These skills are often gained through active employment but are increasingly being addressed in technical schools, colleges, and the K-12 system.

How have you addressed challenges in hiring or training?

While not exclusive to the Nuclear Technology and Energy industry, HR practices have been in transition in recent years in response to changing expectations from employers and prospective candidates. With the lack of non-technical skills mentioned in the prior question, high school graduates may not have the workforce readiness expected of them, leading to missed opportunities. To combat this, local employers are taking a renewed focus on transferable skills that widen the hiring pool and offering more robust training to offset differentials in expertise and industry awareness. Early talent campaigns are a cornerstone of this strategy as employers create a more tailored experience throughout the selection process. Due to the intensive nature of the work and the low margin of error, new employees must feel involved with the process and understand that their work makes a difference. By building recurring touchpoints in the community at various stages of education, industry employers are able to address these and other challenges experienced in the region.

What are the top 3 barriers to finding qualified talent in the region?

The participants mentioned challenges such as acquiring and maintaining a Department of Energy security clearance, the challenges of relocation, and competition with larger cities.





What is the region's competitive advantage regarding workforce?

The participants took note of the commitment made by the City of Lynchburg, county governments, school systems, and educational facilities. These organizations work together to invest in the Nuclear Technology and Energy industry and the local talent pool. There is a willingness to development programmatical support and fund new opportunities that is uncommon in other areas. Once again, the quality of life offered by the Lynchburg region is a major competitive factor for its workforce. Participants mentioned hiking trails, restaurants, and the revitalization of downtown as valuable assets for early-career employees that can also retain college graduates. The community also supports trailing spouse opportunities, which is particularly helpful for talent attraction outside of the region. Despite the gaps and obstacles mentioned above, the richness of the talent pool is one of the region's greatest assets. Workers are willing to drive many miles to take part in an exciting, meaningful industry that provides economic mobility and a sense of worth.





Industry Growth Assessment

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Industry Validation Quadrant Graph Legend



To validate industry performance within a region, Hickey Global plots projected employment growth against the skill concentration of individual industries or aggregated groups. The analysis begins with an economy-wide evaluation of NAICS codes at the 2-digit level, then narrows down to sub-sectors that represent meaningful areas of opportunity for the region.

The Skills Gap Analysis takes into consideration all relevant employment industries regardless of projected growth to capture legacy industries and identify potential employment transition opportunities. For the purpose of this study, industries were chosen due to their relevance to the overall nuclear technology and energy ecosystem whether as suppliers, fabricators, or engineering and design.

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Manufacturing Industry Review

LOCATION QUOTIENT VS PROJECTED GROWTH



Note: Dot Size represents Regional Employment within the Sector

	Fabricated Metal Product Manufacturing		
inery Manufactu	ring		
Furniture and R Product	Related		Textile Mills
	3	4 8) 10





Source: Lightcast, Hickey Global

Study Parameters Industry Categorizations

Primary Industry

Motor and Generator Manufacturing (335312) comprises establishments primarily engaged in manufacturing electric motors (except internal combustion engine starting motors), power generators (except battery charging alternators for internal combustion engines), and motor generator sets (except turbine generator set units).

Instruments and Related Products for Measuring, Displaying, and Controlling Industrial Process Variables (334513) comprises establishments primarily engaged in manufacturing instruments and related devices for measuring, displaying, indicating, recording, transmitting, and controlling industrial process variables. These instruments measure, display, or control (monitor, analyze, and so forth) industrial process variables, such as temperature, humidity, pressure, vacuum, combustion, flow, level, viscosity, density, acidity, concentration, and rotation. Power, Distribution, and Specialty Transformer Manufacturing (334311) comprises establishments primarily engaged in manufacturing power, distribution, and specialty transformers (except electronic components). Industrial-type and consumer-type transformers in this industry vary (e.g., step up or step down) voltage but do not convert alternating to direct or direct to alternating current.









Study Parameters Industry Categorizations

Extended Industry

Power Boiler and Heat Exchanger Manufacturing (332410) comprises establishments primarily engaged in manufacturing electric motors (except internal combustion engine starting motors), power generators (except battery charging alternators for internal combustion engines), and motor generator sets (except turbine generator set units).

Fluid Power Cylinder and Actuator Manufacturing (333995) comprises establishments primarily engaged in manufacturing fluid power (i.e., hydraulic and pneumatic) cylinders and actuators.

Turbine and Turbine Generator Set Units Manufacturing (333611) comprises establishments primarily engaged in manufacturing turbines (except aircraft); and complete turbine generator set units, such as steam, hydraulic, gas, and wind.

Other Measuring and Controlling Device Manufacturing (334519) comprises establishments primarily engaged in manufacturing measuring and controlling devices (except search, detection, navigation, guidance, aeronautical, and nautical instruments and systems; automatic environmental controls for residential, commercial, and appliance use; instruments for measurement, display, and control of industrial process variables; totalizing fluid meters and counting devices; instruments for measuring and testing electricity and electrical signals; analytical laboratory instruments; irradiation equipment; and electromedical and electrotherapeutic apparatus).

Plate Work Manufacturing (332313) comprises establishments primarily engaged in manufacturing fabricated metal plate work by cutting, punching, bending, shaping, and welding purchased metal plate.

Fabricated Structural Metal Manufacturing (332312) comprises establishments primarily engaged in fabricating structural metal products, such as assemblies of concrete reinforcing bars and fabricated bar joists.

Technical Services

Engineering Services (541330) comprises establishments primarily engaged in applying physical laws and principles of engineering in the design, development, and utilization of machines, materials, instruments, structures, processes, and systems. Research and Development in the Physical, Engineering, and Life Sciences 541715) comprises establishments primarily engaged in conducting research and experimental development in the physical, engineering, and life sciences.





Nuclear Technology and Energy Ecosystem Industry Review

LOCATION QUOTIENT VS PROJECTED GROWTH





Note: Dot Size represents Regional Employment within the Sector

icated Structural Metal Manufacturing		Power, Distribution, and Specialty Transformer Manufacturing	Fluid Power C and Actua Manufactu	Cylinder ator uring	Plate Work Manufacturi
		Po	wer Boiler and Heat Exchanger Manufacturing		
8	10 1	.0 3	0 5	0 7	0











Source: Lightcast, Hickey Global

Demand for Labor

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Study Parameters Targeted Occupations

Having demonstrated the growth potential for industries related to the Lynchburg region's Nuclear Technology ecosystem, the study focuses on specific occupations that make up a large proportion of industry demand. These occupations have been developed using industry staffing patterns and are organized into the three categories shown below.

Production

Miscellaneous Assemblers and Fabricators (51-2098) Welders, Cutters, Solderers, and Brazers (51-4121) Electrical, Electronic, and Electromechanical Assemblers (51-2028) First-Line Supervisors of Production and Operating Workers (51-1011) Structural Metal Fabricators and Fitters (51-2041) Inspectors, Testers, Sorters, Samplers, and Weighers (51-9061) Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic (51-4031) Machinists (51-4041) Computer Numerically Controlled Tool Operators (51-9161) Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic (51-4081)Coil Winders, Tapers, and Finishers (51-2021)

Engineering and Technical

Industrial Engineers (17-2112) Nuclear Engineers (17-2161) Electrical Engineers (17-2071) Mechanical Engineers (17-2141) Electrical and Electronic Engineering Technologists and Technicians (17-3023) Industrial Engineering Technologists and Technicians (17-3026) Electronics Engineers, Except Computer (17-2072) Engineers, All Other (17-2199) Software Developers (15-1252) Computer Systems Analysts (15-1211)

Corporate

General and Operations Managers (11-1021) Industrial Production Managers (11-3051) Architectural and Engineering Managers (11-9041) Buyers and Purchasing Agents (13-1028) Project Management Specialists (13-1082) Sales Representatives, Wholesale and Manufacturing (41-4012)





Study Parameters Targeted Occupations

The charts below demonstrate the current employment distribution of the selected occupations for the Primary and Extended NAICS codes. For the Primary industries, the targeted occupations represent **63**% of total industry employment at the national level, with only **37**% of employment not covered by the study's targeted occupations. That proportion is slightly lower for the Extended industries, but the targeted occupations still cover the majority of industry employment at **56**%. For both industry categorizations, production is the largest source of employment.





Production Engineering and Technical Corporate Other





Production Occupations Occupation Review

LOCATION QUOTIENT VS PROJECTED GROWTH



Location Quotient

Note: Dot Size represents Regional Employment within the Sector





Corporate, Engineering, and Technical **Occupation Review**



Source: Lightcast, Hickey Global





Note: Dot Size represents Regional Employment within the Sector







Production Targeted Occupations Profile

The table on the right shows the Lynchburg region's current employment and growth prospects for production occupations associated with Nuclear Technology and Energy industries.

Despite a modest decline in the overall employment of these positions over the last 5 years, the region is projected to experience nearly 4% growth through 2028.

Most occupations also have an employment concentration greater than one in the region, indicating competitive production strengths for the region. The largest employment concentration is seen in Machinists followed by **Structural Metal Fabricators** and Fitters.

Occupation

First-Line Supervisors of Production and Operating Workers

Coil Winders, Tapers, and Finishers

Electrical, Electronic, and Electromechanical Assemblers, Except Coil Winders, Tapers, and Finishers

Structural Metal Fabricators and Fitters

Miscellaneous Assemblers and Fabricators

Machinists

Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic

Welders, Cutters, Solderers, and Brazers

Cutting and Slicing Machine Setters, Operators, and Tenders

Inspectors, Testers, Sorters, Samplers, and Weighers

Computer Numerically Controlled Tool Operators

Production Total









Engineering and Technical Occupations Targeted Occupations Profile

The table on the right shows Lynchburg's current employment and growth prospects for engineering and technical occupations associated with Nuclear Technology and Energy industries.

With a few exceptions, engineering and technical roles are expected to grow in Lynchburg over the next five years. Critically, one of the occupations expected experience a modest decline is Nuclear Engineers with a projected loss of 1.39% through 2028.

This occupation also has the highest employment concentration with a location quotient of 4.77. Overall, engineering talent is well represented in the region.





Fnaineerina	and Technical	
Ligineening	und rechnicul	

DN	2023 Jobs	Projected 5- Year Growth (2023 – 2028)	Average Annual Earnings	2023 Locat Quotient
	232	6.16%	\$96,963	0.62
	569	14.29%	\$117,203	0.46
	183	2.96%	\$101,995	1.33
	31	8.07%	\$113,345	0.45
	410	5.57%	\$106,700	1.68
	246	6.43%	\$89,163	1.20
	53	-1.39%	\$109,981	4.77
	81	5.08%	\$99,445	0.67
ologists and Technicians	94	2.78%	\$67,872	1.26
chnicians	63	-1.52%	\$77,466	1.12
	1,963	7.51%	\$103,046	-













Corporate Occupations Targeted Occupations Profile

The table on the right shows Lynchburg's current employment and growth prospects for corporate occupations associated with Nuclear Technology and Energy industries.

Similar to the other two categories, corporate roles are projected to face considerable growth over the next five years, particularly **Industrial Production Managers**. This role also has the highest specialization with a location quotient of 1.10.

Corporate roles are present in Lynchburg's industries but don't have an outsized impact on local employment specialization, with few occupations boasting a location quotient greater than one.



	Corporate			
n	2023 J	Projected 5 obs Year Growt (2023 – 202	5- Average h Annual 28) Earnings	2023 Locati Quotient
	2,00	7 6.59%	\$112,288	0.79
	169	9.47%	\$117,663	1.10
	128	5.45%	\$155,277	0.86
	354	-0.34%	\$67,022	1.01
	648	4.20%	\$102,769	0.91
facturing	762	4.89%	\$71,961	0.81
	4,06	7 5.37%	\$100,850	-















Gap Analysis





Gap Analysis Current and Future Demand

To understand the competitive advantages or disadvantages of the occupations identified in Step 2, the study compares projected growth for each individual skillset against that of the national average. On the following pages, this comparison is demonstrated by three charts: the first, titled "Projected Change in Jobs," is the 5-year projected growth rate of the occupations within the Lynchburg region. The second, "Expected Change in Jobs," shows the growth rate for the nation as a whole, or the average growth rate. The final chart, "Net Difference," is the Projected Change in Jobs subtracted by the Expected Change in jobs, or the differential between the Lynchburg region's growth prospects and that of the U.S. A positive (>0) net difference indicates that the region is projected to grow faster than average, while a negative (<0) difference indicates that the occupation may face a skills gap in coming years. These later occupations are highlighted in the chart and prioritized for further analysis in the Skills Gap Index.

In addition to five-year projections based on historical employment levels and growth, the identified occupations are facing increased demand from major employers in the Lynchburg region. Major announcements from Delta Star, Framatome, and BWXT within a year and a half will place a strain on existing labor availability while providing additional resources to invest into future talent. The results of the gap analysis will help prioritize the use of those resources by identifying the skillsets and specializations most at risk in the region.

Delta Star

In May 2023, announced an expansion of \$30 million in capital investment and 149 new jobs in the Lynchburg region. The expansion takes place in the company's corporate headquarters and transformer manufacturing facility as Delta Star responds to growing industry demands. The expansion will add 80,000 square feet of manufacturing space to the 300,000 square feet facility, and job placement efforts are directed at students, skilled craftsmen, and industry-experienced professionals.

Framatome

In April 2024, Framatome broke ground on a major expansion of its Operational Center of Excellence in Lynchburg. The expansion includes \$50 million in capital investment and the addition of up to 500 new employees. The company's nuclear training center will be refurbished to support development of small and advanced reactor technologies while modernizing existing facilities.

BWXT Advanced Technologies

BWXT plans on adding 100 new jobs in the Lynchburg region as part of a \$65 million conversion of an existing facility into the company's headquarters for Advanced Technologies. The BWXT Innovation Campus will employ a total 350 employees, with hiring made possible by intentional partnerships between the company, local educational institutions, and economic development organizations.







Occupation Growth: Production Skills Gap Analysis

Step 3: Benchmark industry and occupation performance in the Nuclear Technology and Energy industry against national growth projections. The skills gap is the differential in occupation growth between the community and the national average.

PROJECTED CHANGE IN JOBS (2023 - 2028)

Computer Numerically Controlled Tool Operators	
Structural Metal Fabricators and Fitters	
Welders, Cutters, Solderers, and Brazers	
Machinists	
Cutting and Slicing Machine Setters, Operators,	
Multiple Machine Tool Setters, Operators, and	
First-Line Supervisors of Production and	
Electrical, Electronic, and Electromechanical	
Miscellaneous Assemblers and Fabricators	
Inspectors, Testers, Sorters, Samplers, and	
Coil Winders, Tapers, and Finishers	



EXPECTED CHANGE IN JOBS



NET DIFFERENCE

St	e	p	3	
		-		



Occupation Growth: Engineering and Technical Skills Gap Analysis

Step 3: Benchmark industry and occupation performance in the Nuclear Technology and Energy industry against national growth projections. The skills gap is the differential in occupation growth between the community and the national average.

PROJECTED CHANGE IN JOBS (2023 - 2028)



EXPECTED CHANGE IN JOBS (2023 - 2028)



NET DIFFERENCE

(2023 - 2028)







Occupation Growth: Corporate Skills Gap Analysis

Step 3: Benchmark industry and occupation performance in the Nuclear Technology and Energy industry against national growth projections. The skills gap is the differential in occupation growth between the community and the national average.

PROJECTED CHANGE IN JOBS (2023 - 2028)

Industrial Production Managers		
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products		
General and Operations Managers		
Buyers and Purchasing Agents		
Architectural and Engineering Managers		
Project Management Specialists		

EXPECTED CHANGE IN JOBS (2023 - 2028)

NET DIFFERENCE (2023 - 2028)







Gap Occupations Targeted Occupations

Based on the discrepancy between regional growth rates and national projections, the occupations highlighted below represent the particula focus areas for the remaining Skills Gap Analysis. These occupations w be analyzed by category to better understand economic development opportunities for the Lynchburg region.

Production

Miscellaneous Assemblers and Fabricators (51-2098)

Welders, Cutters, Solderers, and Brazers (51-4121)

Electrical, Electronic, and Electromechanical Assemblers (51-2028)

First-Line Supervisors of Production and Operating Workers (51-1011

Structural Metal Fabricators and Fitters (51-2041)

Inspectors, Testers, Sorters, Samplers, and Weighers (51-9061) Cutting, Punching, and Press Machine Setters, Operators, and Tender Metal and Plastic (51-4031)

Machinists (51-4041)

Computer Numerically Controlled Tool Operators (51-9161)

Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic

(51-4081)

Coil Winders, Tapers, and Finishers (51-2021)

Industrial Engineers (17-2112)Nuclear Engineers (17-2161)Electrical Engineers (17-2071)Mechanical Engineers (17-2141)Electrical and Electronic Engineering Technologists and Technician 3023)Industrial Engineering Technologists and Technicians (17-3026)Electronics Engineers, Except Computer (17-2072)Engineers, All Other (17-2199)Software Developers (15-1252)Computer Systems Analysts (15-1211)rs,CorporateGeneral and Operations Managers (11-1021)Industrial Production Managers (11-3051)Architectural and Engineering Managers (11-9041)Buyers and Purchasing Agents (13-1028)Project Management Specialists (13-1082)Sales Representatives, Wholesale and Manufacturing (41-4012)		Engineering and Technical
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		Sales Representatives, Wholesale and Manufacturing (41-4012)









Skills Gap Index

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Skills Gap Index Analysis

Having indexed the Nuclear Technology and Energy occupations that the Lynchburg region will require to be competitive in the coming years, the remaining analysis considers the individual components of employment growth (or loss) for production, engineering & technical, and corporate roles. The assessment includes macro indicators of community growth followed by occupation-specific analysis, including:

- Typical Education, Training, and Skill Requirements
- Talent Pipeline
- Career Pathways
- **Occupation Demographics**
- Local Hiring Competition

The analysis yields insight into the factors that influence industry's ability to hire the appropriate talent, whether as initial employment for a relocation project or long-term solutions for future expansions. By leveraging these insights, Lynchburg will be able to direct economic and workforce development efforts to provide proactive, meaningful support to the community's Nuclear Technology and Energy industry.






Community Assessment Skills Gap Index

Lynchburg Region, Virginia

Composed of Lynchburg City, Amherst, Appomattox, Campbell, and Bedford counties, the Lynchburg region faces a number of competitive factors that affect its ability to service companies operating in the Nuclear Technologies industry.

Between 2018 and 2023, the regional population increased by **0.4%** or 1,177 individuals. At the same time, jobs declined by 1.7% from 121,278 to 119,240. Both measures were lower than the national average for the period, pointing to a market-wide discrepancy in growth prospects that can impact the long-term sustainability of relocation or expansion projects.

The largest county by population in the region is Bedford, with a total population of 79,761 in 2023. Lynchburg City follows closely behind with a 2023 populace of 79,166. For Nuclear Technology and Energy industry employment, however, Campbell has the largest total employment in the accumulated Main and Extended industry definitions, reaching 2,521 jobs in 2023. For only the Main industries, Lynchburg City has the highest 2023 employment with 159 jobs.

The following section reviews population growth, labor force, demographics, and migration and commuting patterns for the counties making up the Lynchburg region. These measures point towards how the region has achieved its current growth trajectory and what can be emphasized to improve future conditions.



REGIONAL POPULATION (2023)	TOTAL REGIONAL EMPLOYMENT (2023)	LABOR FORCE PARTICIPATION RA (MARCH 2024)
264,559	119,240	57.50 %











Community Assessment Skills Gap Index

- Amherst County
- Appomattox County
- Campbell County
- Bedford County
- Lynchburg City County









Population Growth Community Assessment

The chart below shows the current population and labor force of the Lynchburg region and its composite counties against the five-year growth rate of each location. As shown, the region as a whole has experienced only modest growth since 2018, with the highest growth rates occurring in Appomattox and Bedford Counties.



TOTAL POPULATION AND LABOR FORCE (2023)







Population Demographics Community Assessment

The chart to the right depicts the distribution of ages by cohort for the Lynchburg region as well as its composite counties.

As of 2023, the Lynchburg region has marginally fewer Millennials and Gen Xers than the national average. While this reduces the prime-working age of the overall populace, the gap is not large enough to represent a meaningful competitive disadvantage for the community. The large proportion of boomers does increase the retirement risk, however, which can lead to the loss of institutional knowledge if focused training efforts and other contingency plans are not in place.

Of the counties that make up the Lynchburg region, The City of Lynchburg is the youngest by a wide margin. The young populace in the county indicates the potential for a sustainable workforce in the long term which is currently offset by the annual outbound migration from the county to other communities. With improved job opportunities and quality of life factors, the current outflow of the region's talent can be fully or partially reversed, leading to a competitively stable market for future projects.

POPULATION BY AGE COHORT (2023)









Net Migration Community Assessment

With the most recent community-level data available for calendar year 2021, total net migration (the balance between inbound and outbound migration) was still being actively influenced by the COVID-19 pandemic. During this period, many large urban markets saw a net migration loss as individuals sought more stable environments during the onset of the pandemic.

The Lynchburg region was a beneficiary of this trend, as the total net migration for 2021 was a positive 760 individuals. Most of this migration was into Bedford County, whereas Lynchburg City was the only county to see a net outflow of residents. These rates are an improvement on prior year migrations, as the Lynchburg region saw a net migration of -240 in 2016.

At the regional level, Lynchburg saw the highest degrees of net migration from Washington, D.C., the New York metropolitan area, and Virginia Beach, Virginia. Within the region, however, most moves are between adjacent counties; for example, most of the yearly inbound migration into Bedford comes from the City of Lynchburg. By leveraging the cost and quality of life factors that have caused the recent shifts in in-migration into the region, Lynchburg can continue its current trend past the impacts of the COVID-19 pandemic.

NET MIGRATION BY COUNTY (2021)







1,500

Commuting Patterns Community Assessment

Region	Total Inbound Commuters	Total Outbound Commuters	Toto Com
Lynchburg, Virginia	30,657	31,553	-9
Commuting Region	Commuters into Lynchburg	Commuters from Lynchburg	Toto Com
Pittsylvania County, VA	3,623	1,245	2,
Roanoke County, VA	1,569	3,237	-1,
Franklin County, VA	1,463	1,286	1
Danville City County, VA	1,431	723	7
Halifax County, VA	1,372	588	7
Roanoke City County, VA	1,212	5,001	-3,
Nelson County, VA	1,109	759	3
Charlotte County, VA	1,020	272	7
Prince Edward County, VA	937	1,023	
Botetourt County, VA	879	884	

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Residents of the Lynchburg region currently commute out of the region's boundaries at a greater rate than those commuting in.

By far the largest source of outbound commuters is Roanoke City County followed by Roanoke County. The Roanoke region has a variety of manufacturing specializations as well as industry strengths in company headquarters and wholesale trade. Local successes in similar industries can help reduce the number of local residents that leave the region for work on a daily basis.

The Lynchburg region has the highest level of inbound commuters from Pittsylvania County, which is roughly the size of Campbell County and has an aging populace. Residents of Pittsylvania largely commute into Campbell County, with some traveling to the City of Lynchburg for work.





Community Assessment

Region	Total Inbound Commuters	Total Outbound Commuters	Toto Com
Lynchburg City County, VA	33,294	16,541	16
Commuting Region	Commuters into Lynchburg	Commuters from Lynchburg	Toto Com
Bedford County, VA	8,473	3,506	4,
Campbell County, VA	5,698	3,103	2,
Amherst County, VA	4,732	1,512	3,
Appomattox County, VA	1,896	379	1,
Danville City County, VA	828	303	5
Roanoke County, VA	725	721	
Pittsylvania County, VA	667	336	3
Roanoke City County, VA	627	1,025	-3
Prince Edward County, VA	503	245	2
Henrico County, VA	500	526	_

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- 967
- 595
- 220
- 517
- 25
- 3
- 32
- 399
- 57
- 27

In isolation, the City of Lynchburg receives a considerable amount of inbound commuters, particularly from other counties within the wider Lynchburg region. With a net positive of 16,752, ³/₄ of those commuters arrive from counties within the Lynchburg, Virginia MSA. In-region commuters make the amount of total inbound commuters **larger** for the City of Lynchburg than the region as a whole, which was shown to have 30,657 inbound commuters.

Commuting into the City of Lynchburg is led by Bedford County, followed by the remaining counties that make up the Lynchburg, Virginia MSA. Outside of those, Danville City County makes up the largest proportion of inbound commuters with 828 traveling into the county for work. In the top 10, only two counties saw a modest loss of net commuters: Roanoke City County with 399 and Henrico County with 27 net commuters into their respective counties.





Occupation Demographics Production

The chart to the right depicts the age distribution of production workers in the Lynchburg region with a data comparison between 2018 and 2023, the most recent data year. As of 2023, there are less workers in production roles between ages 25 and 64, indicating a distinct loss of prime working-age workers. Further, workers aged 65 and up make up a larger proportion of the workforce, creating pronounced retirement risks and weakening the long-term talent prospects of the region. The Lynchburg region can take a proactive approach by working with K-12 and technical colleges to increase career awareness for production roles in the high-wage Nuclear Technology and Energy industry and engage in talent recruitment campaigns in support of long-term population growth.

AGE DISTRIBUTION 2018 VS 2023









Occupation Demographics Engineering and Technical

The chart to the right depicts the age distribution of engineering and technical workers in the Lynchburg region with a data comparison between 2018 and 2023. Compared to 2018, the number of workers under age 35 take up a larger proportion of the overall engineering and technical workforce in 2023. At the same time, middle to upper-level talent from ages 35 to 54 are in shorter supply, with a corresponding growth in workers aged 65 or higher. The latter trends indicates a persistent retirement risk in the regional workforce despite modest gains in younger workers. This ambivalent result demonstrates a continued need to focus on talent attraction and retention strategies for engineering and STEM talent.

In addition to age considerations, the racial and gender distribution of engineering and technical talent in the Lynchburg region is skewed towards white males. Over 80% of the workers in the region are white, and 80% of the same set of workers are male. While businesses in the U.S. have been relatively slow to adopt ESG and DEI initiatives, the hiring goals of major companies are beginning to focus on a diverse workforce as a major component of their overall talent strategy. Communities that are unable to attract and retain a young, diverse workforce will face considerable challenges with large-scale projects in the coming years and must plan accordingly.







Occupation Demographics Corporate

The chart to the right depicts the age distribution of targeted corporate workers in the Lynchburg region with a data comparison between 2018 and 2023. Each of the age cohorts saw growth over the five-year range, with the largest growth seen in the 35-44 and 25-34 category. The widespread growth and movement of millennial workers into corporate roles indicates a favorable environment that doesn't face the same level of risk as the other occupation categories. While the gender disparity in corporate roles is less pronounced than in production, engineering, or technical occupations (although males still outnumber females), the racial demographics skew sharply to white workers.

AGE DISTRIBUTION 2018 VS 2023









Typical Education Requirements Production Occupations

The education and training requirements for the production occupation gaps are extremely homogenous. As reported by the U.S. Bureau of Labor Statistics, the typical entry level education for each of the production occupations identified is a High School Diploma or equivalent. At the national level, prior work experience is only required for First-Line Supervisors of Production and Operating Workers; the remaining occupations require none. For companies in the Nuclear Technology and Energy industry, however, there may be more stringent work experience requirements due to the complex nature of the industry and its associated regulations. As such, markets with an existing and experienced labor force for associated roles are much more valuable than low-cost, emerging regions.

For each of the occupation gaps in production, the typical on-the-job training requirements are "medium term," meaning that skills needed to attain competency can be acquired during 1 to 12 months of combined on-the-job experience and informal training. Once again, the requirements for the Nuclear Technology and Energy industry are likely to be longer term than the average employment opportunity, raising the importance of a sustainable talent pipeline for new hires. The only production occupation included in the study that requires "long-term" training (>1 year) at the national level is **Machinists**, which does not pose a likely competitive challenge for the Lynchburg, Virginia region.

Targeted Production Occupations Miscellaneous Assemblers and Fabricators (51-2098) Electrical, Electronic, and Electromechanical Assemblers (51-2028) First-Line Supervisors of Production and Operating Workers (51-1011) Inspectors, Testers, Sorters, Samplers, and Weighers (51-9061) Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic (51-4031) Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic (51-4081) Coil Winders, Tapers, and Finishers (51-2021)







Top Qualifications Required Production Occupations

While traditional educational requirements for production occupations tend to be less rigorous compared to related corporate and engineering positions, qualifications and continued professional development play a larger role in the industry's talent pipeline. The study has identified the most frequently requested qualifications for Nuclear Technology and Energy companies in the Lynchburg region, shown on the right.

Compared to the national average, companies in the Lynchburg region require more robust qualifications and certificates for production occupations. For instance, the Lynchburg region requires both OSHA 10 and OSHA 30 program completions depending on the occupation as well as a wider variety of Six Sigma experience. These heightened requirements suggest a **distinct need for supervisory roles** for production talent and closely aligns with the technical complexity of the Nuclear Technology and Energy industry as a whole. Qualifications in **bold** are shared between the Lynchburg region and national job postings, indicating recurring requirements across the U.S.

Top Qualifications for Production Occupations Valid Driver's License **10-Hour OSHA General Industry Card** Certified Research Administrator (CRA) American Society for Quality (AQS) Certified **Certified Commercial Contracts Manager** Six Sigma Black Belt 30-Hour OSHA General Industry Card NICET Certification (National Institute for Certification in Engineering Technologies) **Certified Quality Auditor Certified Quality Technician** Six Sigma Green Belt Lean Six Sigma Black Belt Lean Six Sigma Green Belt **Quality Inspector Certification Security Clearance**







Specialized Skill Requirements **Production Occupations**

FREQUENCY OF SKILL REQUIREMENTS VS **AVAILABLE TALENT**



The chart on this page uses regional job posting data to identify the top skills required by companies hiring production talent in the Lynchburg region. The blue bar represents the frequency of each skill mentioned by a job posting over the past year, and the orange represents the frequency of the same skill occurring in a local profile. The resulting gap may indicate a lack of certain skills or a mismatch between job posts and information shared on job websites.

For production occupations, the data may underrepresent existing skills in the region because those roles are less reliant on professional websites such as LinkedIn. As such, the chart largely demonstrates the type of skills required by the Nuclear Technology and Energy industry and not a corresponding skills gap.

Production occupations by and large use technical and craft skills that don't typically include certifications or educational requirements, as shown in the prior section. Some, like overhead crane operation, do require specialized certifications that can be provided by technical colleges or similar career centers. When considering how to build and maintain a talent pipeline for production roles, priority should be placed on on-the-job training opportunities or craft and technical centers that focus on the skills highlighted in the study.

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Career Pathways Overview

For workforce developers and educational institutions, career pathways refer to interconnected education and training programs that enable workers to move forward in their specific industry or occupation. Pathways are designed to advance workers into ascending stages of their career by emphasizing industries and skills that are important to local economies and offer both meaningful careers and high wages. Because career pathways are dependent on the local economy's industries, the framework can also be used by economic developers to help businesses recruit talent by identifying potential sources of local employment outside of traditional talent pipelines. By analyzing occupations that share requirements in educational attainment, skills, and qualifications, career pathways can provide a model to guide local talent into higher-paying opportunities through lateral advancements and upskilling.

The career pathways included in the Skills Gap Analysis chart the potential advancement choices available to workers in the Lynchburg region. The pathways are organized by occupational category and display positions that currently exist n the region, reflecting actual opportunities for workers in and outside of the Nuclear Technology and Energy industry.

Career Pathways Legend

The career pathways show career advancement from left to right, with corresponding upskilling opportunities separating the "Entry-level," "Intermediate," and "Experienced" groups. The occupations are grouped into wage ranges that become progressively higher as workers moves from occupations on the left to occupations on the right. For instance, regional residents in the Miscellaneous Assemblers and Fabricators occupation can reasonably expect to advance into the higher-paying Coil Winders, Tapers, and Finishers occupation with relevant on-the-job training or certification. The former role can then be back filled by entry level talent entering the workforce, creating a continuous circuit of recruitment opportunities and skill acquisition. Occupations in bold indicate roles that are targeted occupations for the Lynchburg region's Nuclear Technology and Energy industry and should be prioritized accordingly. Each of the occupations chosen to support or supplement the study's target occupations have measurable transferability based on Lightcast's Compatibility Index; these roles can currently contribute to the Nuclear Technology and Energy industry or another industry within the regional economy.





Career Pathways Production Occupations

Entry-Level		Intermediate		Experienced
Miscellaneous Assemblers and Fabricators		Inspectors, Testers, Sorters, Samplers, and Weighers		First-Line Superviso Production and Oper Workers
Machine Tool Setters, Operators, and Tenders		Coil Winders, Tapers, and Finishers		Machinists
Electrical, Electronic, and Electromechanical Assemblers		Cutting, Punching, and Press Machine Setters, Operators, and Tenders	Certifications	Computer Numeric Controlled Tool Programmers
Machine Feeders and Offbearers	On-the-Job Training Certifications	Welders, Cutters, Solderers, and Brazers	Industry Experience Management Training	Industrial Machine Mechanics
Recycling and Reclamation Workers		Semiconductor Processing Technicians		Aircraft Structure, Sur Rigging, and Syste Assemblers
Print Binding and Finishing Workers		Structural Metal Fabricators and Fitters		Power Plant Opera
Shipping, Receiving, and Inventory Clerks		Extruding and Forming Machine Setters, Operators, and Tenders		Stationary Engineers Boiler Operators
Tire Repairers and Changers		Maintenance Workers, Machinery		
Extruding, Forming, Pressing, and Compacting Machine Setters		Sheet Metal Workers		
Automotive Body Repairers		Operating Engineers and Other Construction Equipment Operators		

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Hiring Competition Production Occupations

The table on the right shows the top 10 NAICS industries that employ targeted production occupations in the Lynchburg, Virginia region.

Half of the top 10 industries are comprised of NAICS codes included in the primary and extended definitions of the Nuclear Technology and Energy industry. As such, industry-level competition for hiring is largely found in Machine Shops and Conveyer and Conveying Equipment manufacturing, with additional demand from Machine Tool Manufacturing businesses. Companies in the Nuclear Technology and Energy industries will have to continue providing competitive salaries, benefits, and quality of life measures to prevent worker attrition to competing industries.

Production					
NAICS	Industry	Production Jobs in Industry	5-Year Growth (2018 – 2023)	Average Earnings per Job	% of Production Jobs in Industry
332313	Plate Work Manufacturing	761	-2.55%	\$137,155	17.7%
332710	Machine Shops	294	10.36%	\$74,244	6.8%
333922	Conveyor and Conveying Equipment Manufacturing	233	-28.64%	\$96,277	5.4%
332312	Fabricated Structural Metal Manufacturing	210	34.01%	\$88,514	4.9%
333517	Machine Tool Manufacturing	146	37.53%	\$85,633	3.4%
333995	Fluid Power Cylinder and Actuator Manufacturing	143	77.82%	\$105,068	3.3%
561320	Temporary Help Services	138	-45.86%	\$36,078	3.2%
335311	Power, Distribution, and Specialty Transformer Manufacturing	113	76.36%	\$108,350	2.6%
332410	Power Boiler and Heat Exchanger Manufacturing	90	67.86%	\$63,841	2.1%
326199	All Other Plastics Product Manufacturing	82	131.48%	\$71,488	1.9%







Hiring Ecosystem **Production Occupations**



Source: Lightcast (Job Openings Data, June 2023 – June 2024, Hickey Global

Between June 2023 and June 2024, there were 258 unique job postings for targeted production occupations in the Lynchburg region. These job posts were spread between a total of 78 employers and had a median posting duration of 20 days. Median posting duration represents the relative time that the job remained available; long durations can indicate difficult hiring conditions for the targeted occupation. Slightly about the regional average of 18 days, the median posting duration for production occupations is relatively stable. Because salary information is not available for every job opening, median advertised salary is a useful albeit incomplete measure of the current asking rate for production occupations within the region. 34% of the 258 postings included salary observations, a quarter of which had posted salary ranges between \$75,000 and \$160,000.

TOP EMPLOYERS



19 Unique Postings



15 Unique Postings



15 Unique Postings







Typical Education Requirements Engineering and Technical Occupations

Education requirements for engineering and technical occupations the Nuclear Technologies industry include a variety of degrees and programs depending on the role and experience level. The typical entry level education for engineers of all kinds is a Bachelor's degre while Technologists and Technicians typically require an Associate' degree. For research-oriented engineering positions, a post-gradua degree may be required. Software Developers and Computer Syster Analysts also require a Bachelor's degree, with continued advancement typically conducted through certifications and other professional development programs.

According to jobs opening data for the Lynchburg region, 64% of th positions in demand for engineering and technical talent require a Bachelor's degree, with another 20% requiring a Master's degree. This is slightly higher than the demand rates at the national level, which are 58% and 17% respectively. As with production roles, the Lynchburg region's industrial distribution requires a more educated workforce than what is typically expected throughout the states. By promoting existing programs and encouraging the continued development of curriculum and programmatical support for the Nuclear Technology and Energy industry, the Lynchburg region can address potential skills gaps for future projects.

s in	Targeted Engineering and Technical Occupations
	Industrial Engineers (17-2112)
	Nuclear Engineers (17-2161)
ee,	Electrical Engineers (17-2071)
5 ate	Mechanical Engineers (17-2141)
ms	Electrical and Electronic Engineering Technologists and Technicians (17- 3023)
	Industrial Engineering Technologists and Technicians (17-3026)
	Engineers, All Other (17-2199)
ıe	Software Developers (15-1252)
	Computer Systems Analysts (15-1211)







Top Qualifications Required Engineering and Technical Occupations

Qualification requirements for engineering and technical occupations demonstrate a distinct need for professional licensure and technical certifications for IT and programming skills. The latter group is more prevalent in the Lynchburg region, as employees are expected to achieve certifications that may need to be maintained on a regular basis.

As with production occupations, engineering and technical occupations have **more stringent requirements within the Lynchburg region, particularly for technical roles.** Combined with the skill requirements on the next page and the academic outcomes shown in the Student Assessment, the expected qualifications point towards a highly qualified local workforce that can be relied upon to fill a variety of roles in the Nuclear Technology and Energy industry. Despite this, regional concentration of Computer Systems Analysts and Software Developers is relatively low, potentially driven by students leaving the region upon graduation.

Qualifications in bold are shared between the Lynchburg region and national job postings, indicating recurring requirements across the U.S.

DataTop Qualifications for Engineering and Technical OccupationsalSecurity ClearancereValid Driver's LicenseProfessional Engineer (PE) LicenseEngineer in TrainingSix Sigma Green BeltJurgSix Sigma Black BeltProject Management Professional CertificationninCisco Certified Network AssociateSaLean Six Sigma CertificationetyCertified Evaluation and Management Coder (CEMC)is,Certified Coding Specialist (CCS)cheCertified Computer Programmer





Specialized Skill Requirements Engineering and Technical Occupations

FREQUENCY OF SKILL REQUIREMENTS VS **AVAILABLE TALENT**

Computer Science Agile Methodology Software Engineering Software Development Project Management Python (Programming Language) Automation Java (Programming Language) SQL (Programming Language) Amazon Web Services Electrical Engineering JavaScript (Programming Language) Application Programming Interface (API) Debugging Scalability DevOps Microsoft Azure Mechanical Engineering CI/CD Workflow Management C# (Programming Language) Git (Version Control System) ■ % of Total Postings % of Total Profiles

The chart on this page uses regional job posting data to identify the top skills required by companies hiring engineering and technical talent in the Lynchburg region. The blue bar represents the frequency of each skill mentioned by a job posting over the past year, and the orange represents the frequency of the same skill occurring in a local profile. The resulting gap may indicate a lack of certain skills or a mismatch between job posts and information shared on job websites.

Compared to production occupations, data for engineering and technical occupations shows a closer alignment between skill requirements and the local workforce. Jobseekers and employees in these occupations are more likely to have upto-date profiles, making the data more reliable for identifying gaps.

While the leading "Computer Science" requirement indicates a potential gap between industry and the labor force, the remaining skills suggest that the category is too broad for inclusion on job profiles. Instead, many of the specific skills and competencies related to programming and software are well represented within the region, with some having a higher percentage in local profiles than job postings. Important gaps do occur in areas such as Electrical and Mechanical Engineering, suggesting that workforce development efforts for this bucket should prioritize engineering talent when preparing for the Nuclear Technology and Energy industry.

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Career Pathways Engineering and Technical Occupations

	Entry-Level		Ir
	Industrial Engineering Technologists and Technicians		Indu
ኮባ	Electrical and Electronic Engineering Technologists and Technicians		Elec
ering	Civil Engineering Technologists and Technicians		Mech
bine Bine	Mechanical Drafters	Bachelor's degree in relevant program	Nu
С Ш	Electrical and Electronics Drafters		Elect Ex
	Avionics Technicians		Enviro
	Automotive Engineering Technicians		Qualit

ntermediate		Experienced
lustrial Engineers		Architectural and Engineering Managers
ectrical Engineers		Aerospace Engineers
chanical Engineers	Post-graduate degree	Computer Hardware Enginees
uclear Engineers	Industry Experience Management Training	
ctronics Engineers, xcept Computer		
onmental Engineers		
ity Control Systems Managers		







Career Pathways Engineering and Technical Occupations

	Entry-Level		Ir
	Web Developers		Soft
ling	Database Administrators		Cor
	Web Administrators		Softwar Anal
	Network and Computer Systems Administrators	Bachelor's degree in relevant program	Info
			Comp
			Cor

Intermediate	
oftware Developers	
Computer Systems Analysts	
vare Quality Assurance nalysts and Testers	Post-graduate degree
nformation Security Analysts	Industry Experience Management Training
nputer Programmers	
Computer Network Architects	
	i de la constancia de la c

Experienced

Data Warehousing Specialists

Database Architects

Business Intelligence Analysts

Computer and Information Systems Managers







Hiring Competition Engineering and Technical Occupations

The table on the right shows the top 10 NAICS industries that employ targeted engineering and technical occupations in the Lynchburg region.

Compared to production occupations, competition for engineering and technical talent is much more challenging for the Nuclear Technology and Energy industry. While engineering services, headquarters, and even college employment can lend support to the overall ecosystem, the high level of employment and competitive earnings can make hiring from the existing labor pool difficult. The engineering and technical demand in the region is best served by expansive educational support as well as growth from outside of the region.

Engineering and Technical					
NAICS	Industry	Category Jobs in Industry	5-Year Growth (2018 – 2023)	Average Earnings per Job	% of Category Jobs in Industry
541330	Engineering Services	380	-20.31%	\$137,326	19.4 %
551114	Corporate, Subsidiary, and Regional Managing Offices	122	22.80%	\$86,623	6.2%
611310	Colleges, Universities, and Professional Schools	77	-7.32%	\$39,632	3.9%
333922	Conveyor and Conveying Equipment Manufacturing	74	-14.21%	\$96,277	3.8%
332313	Plate Work Manufacturing	73	6.15%	\$137,155	3.7%
541512	Computer Systems Design Services	71	9.85%	\$168,863	3.6%
541511	Custom Computer Programming Services	67	135.58%	\$120,188	3.4%
335311	Power, Distribution, and Specialty Transformer Manufacturing	46	43.90%	\$108,350	2.4 %
333995	Fluid Power Cylinder and Actuator Manufacturing	46	113.81%	\$105,068	2.3%
334419	Other Electronic Component Manufacturing	34	61.19%	\$54,785	1.7%







Hiring Ecosystem Engineering and Technical Occupations



Source: Lightcast (Job Openings Data, June 2023 – June 2024, Hickey Global

Between June 2023 and June 2024, there were 494 unique job postings for targeted engineering and technical occupations in the Lynchburg region. These job posts were spread between a total of 110 employers and had a median posting duration of 19 days.

Median posting duration represents the relative time that the job remained available; long durations can indicate difficult hiring conditions for the targeted occupation. Median posting duration for engineering and technical positions is equal to the regional average, suggesting that ease-of-hiring is moderate.

Because salary information is not available for every job opening, median advertised salary is a useful albeit incomplete measure of the current asking rate for production occupations within the region. 34% of the 494 postings included salary observations, with the highest occurrence of roles in the \$95,000 - \$105,000 salary range.

TOP EMPLOYERS



105 Unique Postings

framatome

32 Unique Postings



23 Unique Postings







Typical Education Requirements Corporate Occupations

The corporate occupations identified as skills gaps for the Lynchburg region include key management roles and positions required to maintain industrial supply chains and processes. These occupations share similar education requirements but diverge based on expected industry experience and other qualifications.

According to jobs opening data for the Lynchburg region, 53% of the positions in demand for corporate talent require a Bachelor's degree, with 14% requiring a Master's degree. This rate is commensurate to professional expectations at the national level. In addition to educational attainment requirements, management roles require extensive industry or leadership experience and are therefore more reliant on career pathways than educational or technical institutions. Corporate roles also differ from the other categories from a talent attraction and retention standpoint, as individuals may be enticed from other markets to supplement regional expertise.

Targeted Corporate Occupations General and Operations Managers (11-1021) Architectural and Engineering Managers (11-9041) Buyers and Purchasing Agents (13-1028) Project Management Specialists (13-1082)









Top Qualifications Required Corporate Occupations

Outside of academic degrees, corporate roles require significantly fewer qualifications than the occupations included in the production, engineering, and technical categories. These roles are typically hired from labor pools of recent graduates or employees from competing companies or regions.

For the various industries that contribute to the Nuclear Technologies ecosystem, degrees and skill requirements are supplemented by certifications related to project management. Compared to the other occupation categories, regional expectations for corporate roles closely resemble those at the national level.

Top Qualifications for Corporate Occupations Security Clearance Valid Driver's License Master of Business Administration (MBA) **Project Management Professional Certification Certified Associate in Project Management** Six Sigma Black Belt Lean Certification Agile Certification







Specialized Skill Requirements Corporate Occupations

FREQUENCY OF SKILL REQUIREMENTS VS AVAILABLE TALENT



The chart on this page uses regional job posting data to identify the top skills required by companies hiring corporate talent in the Lynchburg region. The blue bar represents the frequency of each skill mentioned by a job posting over the past year, and the orange represents the frequency of the same skill occurring in a local profile. The resulting gap may indicate a lack of certain skills or a mismatch between job posts and information shared on job websites.

There is a prevalence of project management and marketing skills within the Lynchburg region, both of which are in high-demand by local industry. Supply chainoriented skills like purchasing, procurement, and inventory management are less concentrated but still present in the region. Thes skills represent a large share of the total postings over the past year, indicating a persistent trend of supply chain reevaluation and disruption in high-tech manufacturing industries.

The remaining skills are split between back-office and production competencies that closely correspond with the industry mix of businesses actively hiring within the Lynchburg region. As the Student Assessment section attests, these skills are likely to emerge from the local talent pipeline that can be leveraged for future projects.





Career Pathways Corporate Occupations

Entry-Level		In
Procurement Clerks		Buyers
Business Operation Specialists, All Other		Proje
	On-the-Job Training	l
	Certifications	First-Li Product
	Bachelor's Degree	
		First-Li Office a Sup
		Logi
		Transpo
		Indu

Intermediate		Experienced
ers and Purchasing Agents		General and Operations Managers
oject Management Specialists		Architectural and Engineering Managers
Logisticians	Post-graduate degree Industry Experience Management Training	Purchasing Managers
-Line Supervisors of uction and Operating Workers		Supply Chain Managers
-Line Supervisors of e and Administrative Support Workers		
gistics Engineers		
sportation Engineers		
dustrial Engineers		





Hiring Competition Corporate Occupations

The table on the right shows the top 10 NAICS industries that employ targeted corporate occupations in the Lynchburg region.

Corporate talent is currently concentrated in industries within or supporting the Nuclear Technology and Energy industry, with the most employees in Plate Work Manufacturing followed by **Engineering Services.** Additional workforce can be found in Colleges and Universities as well as Corporate Offices, although the latter may already contribute to the region's Nuclear Technology and Energy ecosystem. The remaining industries reflect a wide variety of processes and companies, further validated by the large number of individual businesses competing for management talent in the Lynchburg region.

NAICS	ļ
332313	Plate Work Manufacturing
541330	Engineering Services
611310	Colleges, Universities, and F
551114	Corporate, Subsidiary, and F
423690	Other Electronic Parts and E
425120	Wholesale Trade Agents and
333922	Conveyor and Conveying Eq
238220	Plumbing, Heating, and Air-
903999	Local Government, Excludin
524210	Insurance Agencies and Bro

Corporate % of Category Average 5-Year Growth Category Jobs Earnings per Jobs in Industry (2018 - 2023)in Industry Industry Job 36.52% **4.9**% 200 \$137,155 189 46.14% \$137,326 11.5% Professional Schools 3.9% 121 -3.64% \$39,632 **Regional Managing Offices** 119 2.9% 16.85% \$86,623 Equipment Merchant Wholesalers 76 1.9% 26.39% \$142,401 65 d Brokers 1.6% 26.52% \$113,182 quipment Manufacturing 1.4% 58 -0.98% \$111,611 -Conditioning Contractors 1.4% 58 140.00% \$76,876 g Education and Hospitals 58 69.20% 1.4% \$66,995 53 81.98% \$100,247 1.3% okerages







Hiring Ecosystem Corporate Occupations



Source: Lightcast (Job Openings Data, June 2023 – June 2024, Hickey Global

Between June 2023 and June 2024, there were 427 unique job postings for targeted production occupations in the Lynchburg region. These job posts were spread between a total of 153 employers, more than those competing for both production and engineering and talent roles. Despite this, companies in the Nuclear Technology and Energy industries remain the largest source of demand for corporate roles in the region. In addition to the companies shown to on this page, Liberty University posted 26 unique roles during the study period.

Because salary information is not available for every job opening, median advertised salary is a useful albeit incomplete measure of the current asking rate for production occupations within the region. 28% of the 427 postings included salary observations, with the highest occurrence of roles in the \$115,000 - \$302,000 salary range—demonstrating a clear need for experienced industry leaders.

TOP EMPLOYERS



39 Unique Postings



18 Unique Postings



13 Unique Postings







Student Assessment





Regional Educational Attainment Student Assessment

As shown in the Skills Gap Index, the Nuclear Technology and Energy industry relies on a variety of skill specializations, certificates, and degrees to fill essential roles and prepare for future innovations and technological advancements. The Lynchburg region has demonstrable advantages throughout the targeted production, engineering and technical, and corporate occupation categories, but should emphasize certain skills and competencies to remain industry-ready.

Educational attainment and student achievement are critical components of the regional talent pipeline and are among the highest priorities for furthering workforce development activities within a community. The final section of the study examines indicators of the Lynchburg region's overall education landscape and how it fits into the region's value proposition for the Nuclear Technology and Energy industry. Because the industry requires qualified talent across the education spectrum, the student assessment begins with a review of overall educational attainment within the community before examining certifications and degree production in the region.

Total educational attainment by level is shown in the table to the right, with the Lynchburg region's values benchmarked against the national average. Attainment levels refer to the highest level of education achieved by the populace.

Educational Attainment by Level

Education Level	Lynchburg Region Population (2023)	% of 2023 Population	Net Change (2018 – 2023)	% of National Population
Less than 9 th Grade	5,381	3.0%	-1.2%	5.4%
9 th Grade to 12 th Grade	10,274	5.7%	-2.4%	7.2%
High School Diploma	55,284	30.8%	0.2%	27.1%
Some College	37,844	21.1%	-0.3%	20.6%
Associate's Degree	15,747	8.8%	0.1%	8.4%
Bachelor's Degree	34,317	19.1%	2.4%	19.4%
Graduate Degree and Higher	20,905	11.6%	1.2%	12%

The Lynchburg region has fewer high school students than the national average. The region also has higher rates of High School Diplomas and Associate's Degrees as the highest educational attainment than the nation, indicating a labor pool fit for Production occupations and other entry-level career pathways. Overall, regional residents have become more educated since 2018, placing the region just behind attainment levels at the national level.







Educational Attainment by County Student Assessment

The chart below shows the most recent distribution of educational attainment within each of the Lynchburg region counties. The percentage of Associate's and Bachelor's degrees are similar between counties, with Amherst an outlier with high HS diploma achievement and fewer Bachelor's degrees. The highest percentages of graduate degrees and higher are found in Appomattox and the City of Lynchburg, indicating workforce specialization in the two counties.



EDUCATIONAL ATTAINMENT BY COUNTY (2023)

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Regional Institutions Student Assessment

To understand the total talent pipeline for the Lynchburg region, the study reviews program availability and awarded degrees for skills demanded by the Nuclear Technology and Energy industry. Students in the region have access to a variety of institutions and programs, with the predominant schools shown below. The majority of degrees are awarded by Liberty University with nearly 25,000 degrees in 2023. Virginia Tech plays an essential role in the workforce ecosystem, providing highly technical engineering degrees up to the doctorate level. The remaining institutions produce a number of certifications and academic degrees that create a range of skills suitable for industry employers.

COMPLETIONS BY DEGREE TYPE AND INSTITUTION (2023)







Regional Completions Student Assessment

Shown below are regional program completions by 2-digit Classification of Instructional Programs (CIP) code. These codes were selected due to their relevance to the Nuclear Technology and Energy industry both in the Lynchburg region and across the U.S. Regional employers benefit from a large talent pipeline for Computer and Information Sciences and Engineering talent, driven by large-scale academic programs in Liberty University and Virginia Tech. Additional programmatical support exists for STEM degrees and production certificates, albeit at a lower level. With the exception of Mathematical and Statistics degrees and Mechanic and Repair Technician certificates, award growth can be seen across the board over the past five years, indicating a sustainable pipeline that can be tapped for potential relocations or expansions.

12,000 10,000 8,000 6,000 4,000 2,000 0 Computer and Information Sciences Engineering Technicians ■2023 Completions

COMPLETIONS BY SELECT 2-DIGIT CIP CODE







Enrollment by Institution Student Assessment

Another indicator of the health and size of the regional talent pipeline is continued enrollment growth in local institutions. During the five-year time frame of the most recent data available, the onset of the COVID-19 pandemic dramatically depressed enrollments in 2020 and 2021. Despite this, many of the Lynchburg region's institutions saw enrollment growth on an annual basis, particularly felt by the Virginia University of Lynchburg. The two largest institutions also experienced average annual enrollment growth over the period, precluding momentary gaps in awards over the next five years.



Enrollment by Institution

2022 Enrollments	Annual Average Growth Rates (2017 – 2022)
553	-4.1%
837	31.3%
2,394	-2.9%
3,388	-3.8%
38,170	2.1%
96,709	5.2%






Institutional Enrollment by Home State Student Assessment

Another factor that can impact the retention of graduates and subsequently the size of the overall talent pipeline is the proportion of enrollment from students in-region versus out-of-region. Below are the enrollment numbers by state for Liberty University and Virginia Tech, the two largest regional institutions. While Virginia Tech predominantly sources students from Virginia at 66%, Liberty University's student body is comprised of students from a range of states. Both institutions are more likely to receive students from other states on the eastern coast or in the southeast. The remaining institutions included in the study largely serve the Virginian populace with the exception of the Virginia University of Lynchburg, whose students derive from a range of states throughout the eastern U.S.





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Production Programs and Awards Student Assessment

As shown in the Skills Gap Analysis, academic degrees make up a smaller portion of the overall requirements for the typical production occupation than for engineering and corporate roles. There were 150 regional completions across 5 programs in 2023, with over half awarded in Central Virginia Community College's Welding Technology and Welder program. This program is a strong example of successful alignment between industry needs and training programs, as many communities have struggled to create and maintain a long-term welding program for the benefit of local employers. The Community College also offers electrical and manufacturing engineering technology certificates and associate's degrees and has largely experienced award growth over the past five years.

For production roles, Liberty University offers both a Master's degree in Engineering and Industrial Management and a customizable Associate's degree for the Construction Trades.

_						
			Production			
	CIP Code	Program	2023 Completions	2018 – 2023 Annual Growth %	Primary Regional Institution	Highest Aw Level
	48.0508	Welding Technology/Welder	82	3.77%	Central Virginia Community College	Certificat
	15.1501	Engineering/Industrial Management	33	N/A	Liberty University	Master's
	15.0303	Electrical, Electronic, and Communications Engineering Technology/Technician	21	2.11%	Central Virginia Community College	Certificat
	15.0613	Manufacturing Engineering Technology/Technician	12	-2.86%	Central Virginia Community College	Associate
	46.0000	Construction Trades, General	2	0.00%	Liberty University	Associate

The latter program is provided by Liberty's College of Applied Studies and Academic Success (CASAS), offering a unique combination of training in Virginia Technical Institute facilities, credentials such as OSHA 10 and NCCER, and minors for specific career paths in carpentry, electrical, HVAC, plumbing, and welding. This comprehensive program allows for increased career readiness in roles that are essential for the long-term growth of utilities and high-tech manufacturing.

An additional program not yet included in the data set is Central Virginia Community College and Framatome's Nuclear Tech Academy, a 2-year program that was renewed in 2023. A partnership between local industry and educational providers, the Academy allows students to earn an Associate's degree in the nuclear energy service industry while gaining on-the-job training. Framatome's partnership also allows students to get paid for their on-the-job contributions.





Engineering and Technical Programs and Awards Student Assessment

With Virginia Polytechnic and Liberty University producing technical degrees across all award types and specifications, the Lynchburg region has an outstanding talent pipeline for key occupations. Many of the engineering degrees offered in the region are available as Bachelor's, Master's, and Doctorate's degrees, providing both an entryway to new students and continued education opportunities for experienced workers. Virginia Tech's doctorate output also provides meaningful support for the **Nuclear Technology and Energy** industry, which is shown to have more robust hiring requirements than other high-tech industries.

Computer and IT degrees are also in high supply and make up a large proportion of degree growth in the region, with Data Science and Computer Programming programs being created over the past five years.

Engineering and Technical						
CIP Code	Program	2023 Completions	2018 – 2023 Annual Growth %	Primary Regional Institution	Highest Aw Level	
11.0101	Computer and Information Sciences, General	929	22.71%	Virginia Tech	Doctor's	
14.1901	Mechanical Engineering	468	-0.70%	Virginia Tech	Doctor's	
14.0801	Civil Engineering, General	365	1.10%	Virginia Tech	Doctor's	
14.0901	Computer Engineering, General	336	6.25%	Virginia Tech	Doctor's	
14.0201	Industrial Engineering	307	3.71%	Virginia Tech	Doctor's	
14.1001	Electrical and Electronics Engineering	203	-6.28%	Virginia Tech	Doctor's	
11.0103	Information Technology	182	4.93%	Liberty	Master'	
30.7001	Data Science, General	173	N/A	Virginia Tech	Bachelor	
11.9999	Computer and Information Sciences and Support Services, Other	166	4.59%	Virginia Tech	Master'	
11.0103	Management Information Systems, General	140	-0.14%	Liberty	Master'	
14.0701	Chemical Engineering	99	-3.90%	Virginia Tech	Doctor's	
40.0801	Physics, General	75	-1.01%	Virginia Tech	Doctor's	
14.3301	Construction Engineering	74	9.60%	Virginia Tech	Bachelor	
11.1003	Computer and Information Systems Security	38	106.67%	Liberty	Bachelor	
50.0404	Industrial and Production Design	37	-1.50%	Virginia Tech	Doctor's	
11.0201	Computer Programming, General	29	N/A	Virginia Tech	Postbaccalau Certificate	
14.1101	Engineering Mechanics	27	22.71%	Virginia Tech	Doctor's	





Corporate Programs and Awards Student Assessment

Corporate roles can often pull talent from a wide array of degrees and programs, as evidenced in the table to the right. Each of the degrees highlighted in the study have experienced positive award growth over the past five years, with Organizational Leadership and Business Administration, Management and Operations growing rapidly in Liberty University and Virginia University of Lynchburg, respectively.

In addition to the degrees shown here, corporate roles that rely on past engineering, technical, or production experience will predominantly rely on the programs assessed within the other two categories.

		Corporate			
CIP Code	Program	2023 Completions	2018 – 2023 Annual Growth %	Primary Regional Institution	Highest Aw Level
52.0201	Business Administration and Management, General	3,552	0.54%	Liberty	Doctor's
30.9999	Multi-/Interdisciplinary Studies, Other	1,824	0.18%	Liberty	Master's
52.1301	Management Science	484	5.41%	Virginia Tech	Bachelor
52.0801	Finance, General	416	5.52%	Virginia Tech	Master's
52.0213	Organizational Leadership	354	570.00%	Liberty	Doctor's
52.0299	Business Administration, Management and Operations, Other	265	568.89%	Virginia University of Lynchburg	Doctor's
52.0101	Business/Commerce, General	181	3.35%	Liberty	Doctor's
04.0902	Architectural and Building Sciences/Technology	168	N/A	Virginia Tech	Master's
30.3301	Sustainability Studies	90	N/A	Virginia Tech	Postbaccalaur Certificate
52.0211	Project Management	72	160.00%	Liberty	Master's







Barry I. Matherly, CEcD, FM, HLM

President & CEO, Hickey Global

+1 917-410-4626

bmatherly@hickeyglobal.com

125 Park Avenue, 25th Floor New York, NY 10017



www.hickeyglobal.com

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