



# Hiring Needs Assessment Production and Manufacturing Includes COVID-19 Impact Assessment

Draft August 2020





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# Overview and Project Goals

Brattleboro Development Credit Corporation (BDCC) is a private, nonprofit economic development organization that serves as a catalyst for industrial and commercial growth throughout Southeastern Vermont. Our goal is to assist start-ups, growing companies, and global businesses alike, in order to support increased economic vitality in our region. Based on research, planning, and data developed by BDCC's affiliate organization, Southeastern Vermont Economic Development Strategies (SeVEDS), BDCC has increasingly played a role in regional workforce development. SeVEDS is focused on creating long-term strategies to generate regional growth and prosperity. BDCC acts on SeVEDS's findings by implementing projects and programs. BDCC & SeVEDS also play important roles in convening and leveraging regional workforce partnerships within the public and private sectors, as well as partnering with state and federal entities.

This report presents results from a survey, the second in a series of hiring needs assessments which take a look at workforce needs within a narrow set of occupations. These Hiring Needs Assessments are intended to be executed and acted upon individually to address workforce needs within each sector. However, the surveys together will deepen overall understanding of this region's "real time", granular workforce needs which frame the day-to-day challenges and opportunities for employers and people in the workforce.

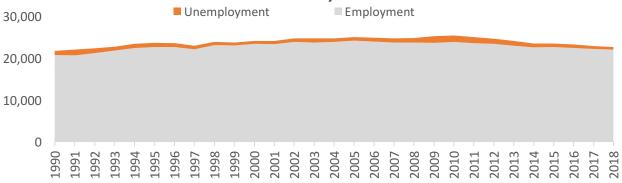
The main objective with this series of hiring needs assessments is to understand demand given a particular occupational sector - the size of that demand today and over the next one to five years. The surveys also assess what employers need from workforce training programs and prospective employees, in relation to the specific occupational set. Collecting the data deepens our understanding of regional employers, and will inform innovative solutions to workforce development by regional workforce development partners, in partnership with state and national entities. Driven by timely data and based on the specific needs of the employers here in the Windham region, BDCC's Southern Vermont Workforce Center of Excellence and the Windham Workforce Development Network will continue to improve alignment between regional demand for talent, job seekers, and the institutions and facilities that prepare job seekers for today's opportunities.

## **Problem Statement**

Ongoing demographic challenges had, until recently, produced a consistent and long-term decline in Vermont's workforce. The Windham region mirrored these trends, with a labor force in 2019 around the size it was in 1993, having fallen steadily since 2009. At the same time, despite unemployment just above 2% in 2019, people continued to need more, and better, opportunities to improve wages and household incomes.

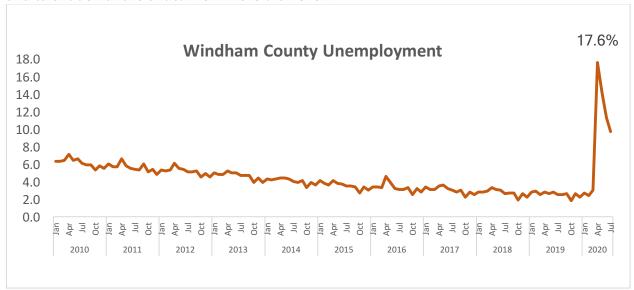


#### **Windham County Labor Force**



Data source: Vermont Department of Labor VTLMI.org

COVID-19 changed this dynamic, causing substantial immediate layoffs that drove the regional unemployment rate around 3%, to over 17% by summer 2020. Some sectors in the state are seeing unemployment at 4-5X those rates. The projected unemployment rate in Vermont may hit 25-30% as the crisis continues. Causing a slowing of the regional economy which will contribute to, and perhaps fundamentally change, the nature of this region's long term economic and demographic struggles. Understanding the changing landscape of employment opportunities and talent demand is critical now more than ever.



Data source: Bureau of Labor Statistics (BLS) Local Area Unemployment Statistics (LAUS)

The significant impacts of this pandemic will continue to unfold. However, with evidence of sustained activity in the production and manufacturing sector, it is important to complete this HNA process to obtain granular data. This data is critical to helping this region respond to a

<sup>&</sup>lt;sup>1</sup> An Approach to Predicting Regional Labor Market Effects of Economic Shocks: The COVID-19 Pandemic in New England retrieved July 2020 from <a href="https://www.bostonfed.org/publications/current-policy-perspectives/2020/the-covid-19-pandemic-in-new-england.aspx?utm\_source=email-alert&utm\_medium=email&utm\_campaign=res&utm\_content=cpp-button-200629</a>



growing need for employment, a persistent need for talent, and the need to retain and sustain key employers.

Workforce development is a state and regional priority. The goals are to ensure employers have the people they need to thrive here, and that the people who live in the region can better access career opportunities that exist here. Connecting these goals requires data. In the winter of 2019-2020 this survey was sent to manufacturers. As the report was being compiled COVID-19 arrived, clearly requiring the data to be revisited given the employment impacts of this pandemic. A supplemental COVID-19 survey was submitted to previous survey respondents. In addition, the entire original survey, including the COVID-19 supplement, was resubmitted to companies who had not responded in the first round. This "reboot" led to a broader and more diverse data set than the original sampling and provided survey results that are sensitive to the early effects of the pandemic.

## Purpose

Regardless of whether the unemployment rate is extremely low, extremely high or anywhere in between, regional workforce development partners need access to real-time data from local employers. Better understanding of local workforce needs is necessary to guide effective local action. To better serve the economy of Southern Vermont, BDCC & SeVEDS are committed to gathering local data specific to the regional workforce and employers.

This report also sits alongside other essential sources of workforce demand data, chiefly Vermont Department of Labor's VTLMI and occupational projections. Workforce data initiatives already in place provide the foundation for this research, articulating a gap between employer needs and talent supply statewide, and core sectors of the Vermont economy. The Vermont Department of Labor, along with the McClure Foundation, have identified 62 occupations in Vermont that offer "promising career pathways." These include jobs that have a median wage of at least \$20/hour and are projected to have at least 250 openings in Vermont over the next decade. These projections align with skills that job seekers will need to enter the economy. This initiative has been crucial in building an understanding of the need to connect more of our incumbent and emerging workforce with the exact skills and education they need to access these jobs. This and subsequent BDCC Hiring Needs Assessments will augment the initiative with detail that relates not only to specific employers within this region, but also to specific training pathways accessible to residents of southeastern Vermont.

Another initiative, The Vermont Talent Pipeline, has helped to implement the U.S. Chamber of Commerce's Talent Pipeline Management (TPM) tool which frames the conversation of managing talent as a supply chain issue. The TPM framework, in which BDCC has participated to link Windham employers to this effort, provides a step-by-step process to quantify labor demand, to assess sourcing options, and to understand skills, training, and certification needs.

Taken together with these other statewide efforts, this regional Hiring Needs Assessment series permits a deeper understanding of differences between statewide and local workforce demand. It will help more fully articulate the shape and size of local opportunities, both those which align with state trends, and those which are distinct. The latter is critical because it highlights focus areas to direct workforce development resources beyond what statewide policy



might determine. For instance, Windham county's healthcare sector has a proportionally greater need for mental health providers than the state does overall; the Windham manufacturing sector has seen greater growth in food and beverage than the state overall; and our construction sector does not reflect the trends or opportunities that drive Chittenden county projects and employment.

These regional reports are also sensitive to special challenges and opportunities for local people, such as access and convenience regarding training and education opportunities. Because we share a workforce with nearby New Hampshire and Massachusetts, workers should be equally likely to access resources unavailable in this corner of Vermont by traveling 30 minutes north or west to Springfield or Bennington, as they are to travel east or south to Keene, NH or Greenfield. MA. But while transit options are abundant in some directions, they are limited in others. Framing our workforce development, within our geographical context is important and must guide our assessment of the resources available in our area.

Finally, the Hiring Needs Assessment is designed to be sensitive to the special character of our employment base, in particular the predominance of small sized employers. For instance, many firms have little to no dedicated human resources staff. Some of our fastest growing companies are still small by national, or even state measures, some didn't exist 5-10 years ago, but their growth projections are bending the curve for an entire sector.

While there are many partners in the Windham Workforce Development Network, most (including BDCC) operate without the benefit of access to private employment data reported to the state and federal government. Each employer's survey responses will not be made public and only aggregate data will be reported out. This kind of detailed demand data from employers is a powerful tool that will help BDCC & SeVEDS align our initiatives, and those of our partners, to improve the region's workforce development system.

# Methodology, & Background

The Hiring Needs Assessment is a real-time, demand-focused analysis of our regional economy. The goal is a framework that can be targeted, repeated, requires low user effort, and has a fast turnaround to generate useful, trusted, and timely data to inform planning and action. A primary objective in creating the rubric for ongoing Hiring Needs Assessment surveys was simplicity: It needs to be easily deployable by BDCC and easy for employers to complete in a short period of time, thus sustainable to continue over time.

In an effort to build upon the statewide discussion of career pathways, BDCC published a white paper called *What is a "Good Job"*. In addition to a workforce development focus on highwage and high-growth jobs, this paper inspires a forward-thinking approach to workforce development that also pays attention to "high-need" and "high-opportunity" jobs. "High-need" may include occupations that have dangerously large vacancies due to retirements (or other factors), even if the occupational sector is not new or growing. "High-opportunity" jobs refer to positions that offer exceptional training and education, and career advancement opportunities. These are suitable for recent high-school graduates or workers looking to get a foothold in a job which is both accessible today, and also places them on a pathway to long-term career and wage growth.



The question of "good jobs" informs the selection of each occupational sector chosen for the survey. Other factors were also considered in setting priorities. Which industries or careers have strong support from statewide workforce partners or policy focus such as apprenticeships? What data might inform efforts among our regional workforce partners, such as the CTE curriculum or new certificate programs through CCV. Based on available data, our knowledge of policy, programs, and information gleaned anecdotally from employers, an occupational sector is selected for assessment. In this case, production and manufacturing jobs have been targeted.

As mentioned earlier, in the midst of producing this report the COVID-19 pandemic made its way to Southeastern Vermont causing immediate impact on business operations in the region. This put the HNA project on pause. In the interim, to assess the extent of COVID-19 impacts on employers and small businesses and help them navigate the crisis, BDCC created an outreach and liaison program to help businesses. The liaisons collected substantial qualitative data from which emerged a picture among local establishments which ranged from businesses shut down or downsizing, to those operating normally, and a few still continuing on a growth trajectory. This outreach affirmed the importance of moving forward with this survey.

## Creating the Database

To build a database of employers to receive the survey, a three step process of data collection was used to compile recipients from a combination of federal, state, and local resources. The Hiring Needs Assessment builds upon the foundation of national Occupational Information Network (O\*NET) data which syncs up with the Department of Labor-Employment and Training Administration (DOL-ETA) and TPM, but expands our understanding with a more intimate assessment of employers and employees in the region. The broad description of Production and Manufacturing covers positions such as Production Line Assembly, Packagers and Fillers, Machine Operators, and Batch Food Makers. Using "Production and Manufacturing" as keywords in our search, a set of North American Industry Classification System (NAICS) codes were identified for businesses within specific industries that employ production and manufacturing workers. These NAICS codes were then used to select employers in the Windham region based on a likelihood that they employ production and manufacturing workers. The O\*NET data was used in the Vermont Secretary of State's Corporations Division database to pinpoint regional businesses that fit the identified NAICS codes. The Vermont Department of Labor's business finder tool, search by county, was also used. Once this data was added to BDCC's existing database, 135 recipients were targeted to receive the survey by email.

This careful approach to building the database was designed to include as many local employers as possible in the survey. Given the small size of so many companies and the diversity of their activities, a broad survey base was necessary. Federal and state data does not always reflect the nuances of talent demand at the regional level. In the long-term, it is to our advantage to build data around employers and occupational types that reflect the community we serve. We seek to understand the detailed circumstances within sectors, and within individual employers. In addition to understanding where the majority of demand lies today and in the near future, this information will help us understand emergent economic actors and our "outliers". This approach is intended to both highlight dominant trends and distinctive characteristics of our employment

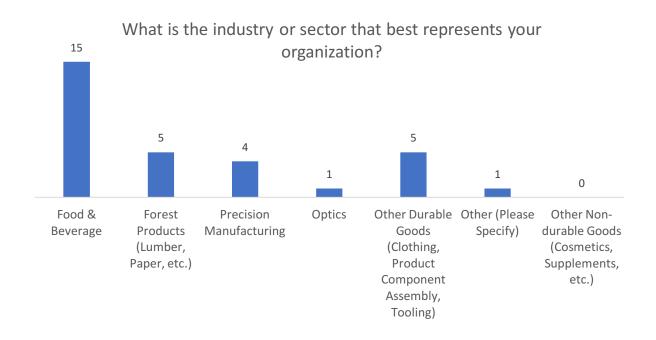


base. To foster a resilient regional economy, we must both strengthen the existing economic base, and foster that which is distinct and thus contributes to a regional advantage.

These surveys will be repeated in the Windham Region to build knowledge across the economy and maintain timely assessments. It is also a process that can be repeated elsewhere scaled up or down to a regional economy and to the capacity of the organization implementing a Hiring Needs Assessment. It is possible to build a robust and representative sample, issue a simple survey, and compile and communicate the results with the use of inexpensive technology. The real limiting factor is staffing: the capacity to implement and repeat a series of time-consuming steps to obtain actionable data.

# The Survey

The manufacturing and production survey was submitted to 135 employers, with 31 companies responding. The employers who responded represented many different sub-sectors; wood product companies, brewers, food producers, precision machine manufacturers, and optics. A complete list of survey respondents can be found in the Appendix. Responses were collected using Survey Monkey's online tool. It was designed to be fast, mobile friendly, and to project data across a 1-5 year timeframe. The goal was to draw out data from employers to describe their current staffing needs, hiring strategies, projected hiring needs, and what training they need to achieve the quality of staff they want.





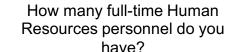
# Results & Analysis from the Baseline Survey

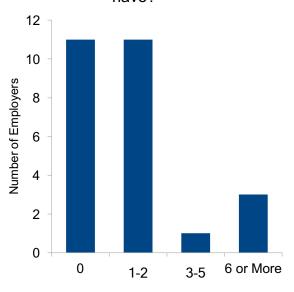
Given the limited Human Resources capacity within most employers (more than one third of respondents have no HR staff) it was important to ask questions in a way that could be easily answered by a human resources staffer, manager, or owner, without requiring research or complex calculations. The low HR capacity within these companies makes for a very different type of organization than a company with 250+ people and a highly specialized administrative team. The person who hires, trains and plans is also a person with other responsibilities, from bookkeeping to sales, to being the company owner or CEO. This has important implications when

faced with a shortage of labor, or of appropriately skilled labor.

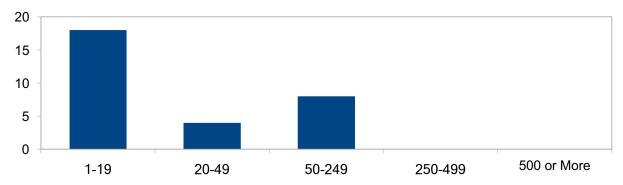
After these baseline questions about the company and HR capacity, the survey asks three broad groups of questions relating to current and projected staffing needs, institutions or programs that prepare job seekers, and recruitment or training strategies.

Survey respondents employ a total of 1,174 employees in Windham County at this time, across all occupational categories. They employ a total of 753 production and based workers, manufacturing the occupational description used in this survey. In 2019, the total employment for manufacturing "supersector" in Windham County was 2,289 people, which means that this survey which captured data from employers of 1,174 employees encompasses approximately half of the total regional employment in the manufacturing sector.

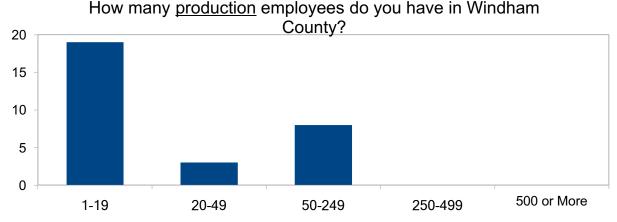




## How many total employees do you have in Windham County?







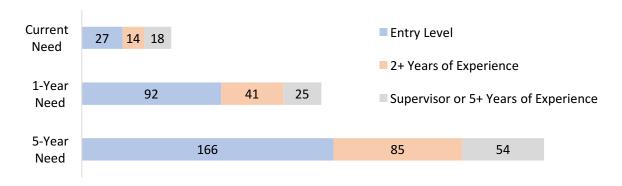
The charts above use employment size categories that reflect the corresponding state and federal data sets to enable comparison between these findings and official government data sources.

Companies represented in the survey range from 0 employees (two sole-proprietors) to one establishment with 175 employees in Windham County. The question was framed in terms of employees within the county, which is important as many of our larger manufacturers have plants in other parts of New England, the country, or the world

As the charts below illustrate, the majority of respondents have fewer than 20 employees, the average at those small companies being 6.4 employees. However, the vast majority of <a href="employment">employment</a> among survey respondents comes from nine companies. These nine companies with 50+ employees represent 78% of the jobs among respondents, with 916 employees total.

#### **Staffing Needs**

Survey questions were framed to assess current and projected production and manufacturing support staffing needs within three basic groupings: entry level workers, workers with 2+ years of experience, or workers at supervisory level and with 5+ years of experience.



Among the survey respondents, there is a current need for 59 workers. The majority of these positions are entry level, a little more than a quarter require some experience, but more than 1/3 (18) are at supervisory level requiring 5 or more years of experience. This reflects

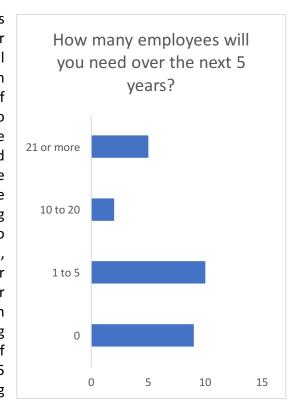


something we know about the Windham county workforce, and the manufacturing workforce in general, which is that this is an older workforce.

When we look at the workforce needs one year out, the demand is more substantial: the 31 employers surveyed need 168 workers within the next year. Of those, 92 positions (58%) will be entry level opportunities, which means "good jobs" accessible to people with a high-school level education, available to the Windham region's workforce despite the pandemic. What is concerning, however, given an aging manufacturing workforce, is that 41% of the demand will be for people with 2-5+ years of experience.

#### Five-Year Demand

Looking five years out, the employers surveyed project a need to fill 305 positions. Over one third (166) will be entry level, but 45% will require 2-5 years of experience. This implies an imperative to increase the pipeline not only of workers into this sector, but to intensify efforts to accelerate their gaining experience in order to fill the demand for workers at these higher levels. The need for experienced workers is causing a system-wide problem and the pressure is not going to let up. We are in the midst of a demographic shift, draining experienced workers from the workforce due to retirements. As older workers exit the workforce, replacing the highly experienced Baby Boomer cohort and Generation X cohort with younger workers means a loss of experience overall within firms, along with the individual challenge of filling each of those positions. While nearly 30% of respondents said they will not be hiring in the next 5 years, the majority will. Five companies are planning to hire 21 or more people in that time period.

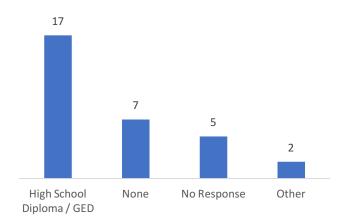


The 31 employers who responded represent only 25% of the companies we attempted to survey, but in terms of employment they represent approximately half of the manufacturing employment for Windham County. Non-respondents include both region's largest manufacturing employer, as well as many very small employers. Based on the survey sample, and what we know anecdotally about some non-respondents, we can extrapolate to assess the total five-year demand for the Windham Region production and manufacturing occupations.

Since the survey sample represents approximately half of regional manufacturing employment, we can assume the total number of employees needed over the next five years could be twice the number identified in the survey - 305 positions. Therefore, we may need to help manufacturers fill approximately 600 jobs in Windham County over the next five years, over half of which will be entry-level positions. The promise of these positions in terms of starting wage and wage growth is well-documented. The average wage in Windham County's



What is the basic level of education and training required of applicants to production jobs?



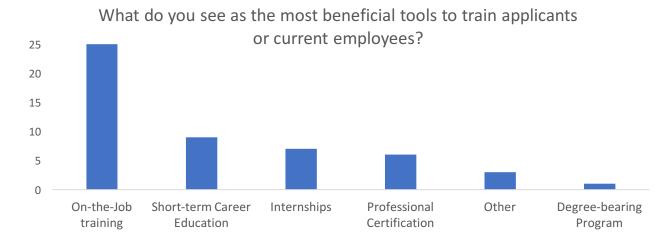
manufacturing sector was \$59,300 in 2019 - 34% higher than the average private sector wage for the region, growing 13.6% from the previous year vs 4.9% for wages overall.

How has this demand changed with COVID-19? A later section in this report covers COVID-19 impacts in more detail, but in terms of these baseline projections the reports of downsizing thus far came from companies representing 37 employees – a very small fraction of the total employment base.

# Finding Quality Hires – Training and Education

Access to quality employees depends upon access to quality training, education and

in many cases to on-the-job experience. Workforce training must, in most cases, be obtained within the economic region, given the low in-migration of working age adults from other areas. Employers were asked about educational requirements for the positions in question, and about which regional programming or institutions they found most effective, based on their hiring experience.



To assess educational requirements, employers were asked if they require a High School Diploma or GED Equivalent, a 2-Year Degree, a Professional Certificate, a Bachelors Degree, or an Advanced Degree. Overwhelmingly, employers in this sector require only a High School Diploma or GED Equivalent or no education requirement at all. A low educational barrier to entry indicates these positions offer opportunities accessible to a wide range of potential employees.

While there is a low barrier to entry, employers still expect applicants to be trained in specific skills. The majority (80%) indicated that on-the-job training was their preferred training method.



In addition to the standard responses, employers suggested other useful skills preparation specific to their type of business:

- Food processing experience
- Specialized technical training
- Hobbies / community theater
- Job coaching from outside agency

However, only five employers indicated they have apprenticeship or career development programs on-site. There is only one manufacturing employer in the region with a major on-site training school - G.S. Precision, which was not among the respondents. Based on previous research, we are not aware of any manufacturing employers actively using federal or state approved apprenticeships at this time. Manufacturing apprenticeships play a major role in recruitment and training for larger Vermont employers, such as GE, and for thousands of employers across the country. That proven on-the-job training and education model is used successfully to recruit and prepare workforce, but translates poorly to this region's small-scale employers.

When asked what they wished they could offer to improve the quality of their workforce on-the-job, employers provided some detailed suggestions:

- Tuition assistance for job-related skills
- Interns at the professional level
- Entry-level training and one small unpaid apprenticeship
- A formal training program that matriculates four students per year building up to a steady state of 12 students
- Carpentry and basic homebuilding
- Northeast Woodlands Training (NEWT) course for new employees

Surveys in recent years confirmed a widespread need for soft skills, thus we chose not to repeat those questions, rather assuming that need is ongoing. Instead, we asked employers in which skills their most recent hires lack training. The two most important skills identified were "Familiarity with tools and equipment" and "Hands-on experience with machinery." These responses correlate with the emphasis on the need for on-the-job training but also underscore the need for educational opportunities which can provide these skills.





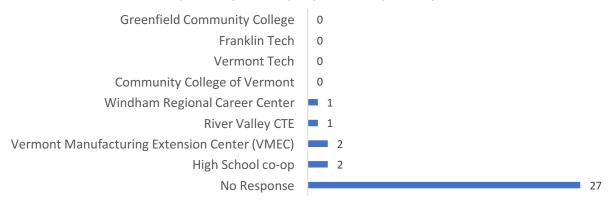
We also gave employers the opportunity to answer with their own assessment of the skills most lacking in employees. The responses reflect both persistent soft-skills deficits, as well as some needs that are very specific to this region's specialty subsectors (food / beverage, and photonics / optics). Based on the open-ended responses, employers also need people with:

- Work ethic
- Willingness to work
- Initiative, Basic Education, Strong work ethic
- "Speed"
- Familiarity with Manufacturing environment people we hire have just worked in service or retail sector
- Food experience
- Advanced brewing knowledge
- Knowledge of the photonics industry, math, physics, chemistry

To understand the role of regional workforce training and education facilities, we asked employers which programs and institutions they rely on to upskill their workforce. Very few employers selected standard options for offsite employee education. The list was based on a drive-time of 30 minutes from regional high schools or employers, and so it includes training centers outside of Windham County (River Valley CTE in Springfield, VT; Greenfield Community College and Franklin Tech in Franklin County, MA) as well as the primary statewide Manufacturing services provider, VMEC.

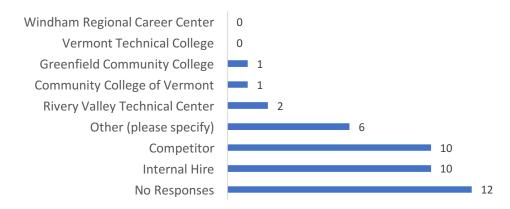
We also asked where the <u>most competent</u> employees were trained. Notable is the number of employers who were not aware of where employees had obtained prior training or education. This points to a need both for employer "backmapping" to understand current resources, and increasing partnerships between workforce development partners and employers.

What offsite education, training, and other programs and institutions do you rely on to prepare or up-skill your workforce?





### Where have your most competent employees been trained?



To understand the need for targeted skills training programs, we asked employers to share their off-site training and education classes which have been useful to them. Language is from respondent answers:

- Basic workforce and management training
- Writing for business
- Excel
- Machine setup
- Supervisory skills
- American Brewer's Guild
- Sewing and patternmaking classes using industrial machines
- CDL-A commercial license
- Basic math skills
- Human machine interface systems
- General food manufacturing principles
- Vermont Rural Water Association (wastewater training

# New Impacts and Forecasting with COVID-19

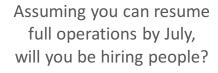
In the midst of producing this report, the region's economy was severely disrupted as a result of the COVID-19 pandemic. Considering how severely employers seemed to be affected, a supplemental survey was created to assess the impact of the COVID-19 pandemic on the businesses first surveyed. The full survey with COVID-19 supplement was also recirculated, with several new respondents taking part this time.

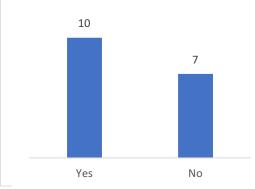
As mentioned earlier, the impacts of the pandemic are ongoing. While early closures affected highly visible businesses such as restaurants and retail, manufacturing has had a different experience. Many were deemed "essential" due to NAICS-based criteria. Some experienced an increase in business, due to being providers of items used in laboratory testing and medical research. As production work is in most cases not viable remotely, in order to

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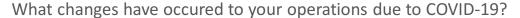
maintain safe distance in production spaces and break rooms, manufacturers have adapted in a variety of ways including spreading out shift work or changing work station configurations. The Vermont Manufacturing Extension Cooperative (VMEC) provided extensive training for companies to adapt to state health and safety guidance.

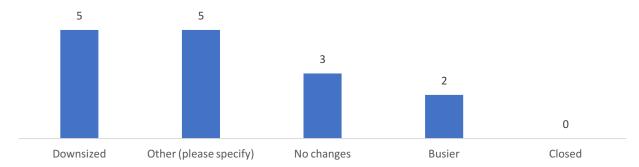
There were 15 respondents who completed both the main survey and the COVID-19 supplement. Of those, 8 had completed the original survey in January. The other 7 were responding for the first time in this (June) round. Another 16 had completed the original survey but did not submit a COVID-19 supplement, therefore they are not represented in the following data set. The COVID-19 supplement





respondents employ 428 people in Windham County, 312 of which are production workers. Seven represent the food and beverage sector, the remainder a mix of forest products, optics, printing, clothing and textiles, precision manufacturing. They ranged in size from 0 employees to over 100.





Respondents were asked about changes that have occurred to their operations and employment due to Covid-19, the causes of these changes and their short term projections.

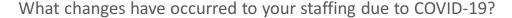
When asked to characterize changes to operations due to COVID-19, seven (47%) cited negative effects. Five said they had downsized and another two that selected "other" indicated negative changes to operations: trouble getting employees to work in one case and in another case delayed release, slowed production, loss of customers. Three cited "no change" to operations, two said they are "busier", and four who indicated "other" mentioned a need for COVID-19 related adaptations on their part, but not negative impacts:

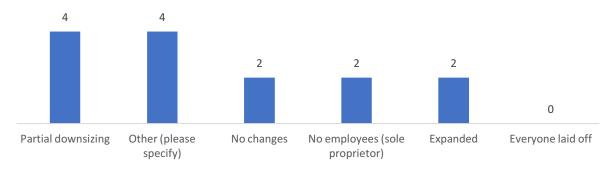
- "Busy but working from home is wildly difficult in manufacturing"
- "60% working from home and others on multiple shifts to create safe spacing"
- "No layoffs, staggered staff schedules to accommodate production and social distancing"
- "Production has been consistent, but difficulty finding help"



Respondents were asked what changes have occurred to their *staffing* due to COVID-19. Six companies (40%) indicated negative changes to their employee census. Of those, four indicated "partial downsizing". Two who indicated "other" cited difficulty getting employees to work and staff resignations due to COVID-19. Six companies (40%) indicated staffing had remained the same. Two had "no change", two had "no employees", and two tagged "other" and cited important changes in roles due to working from home, or staggering schedules as mentioned earlier. Two companies indicated that they have "expanded" due to COVID-19.

Assuming the respondents are able to resume full operations by July, we asked if they would be hiring personnel. Of the 14 who responded, eight (53%) said they would (or had) and 6 (40%) said they would not be hiring people in July.

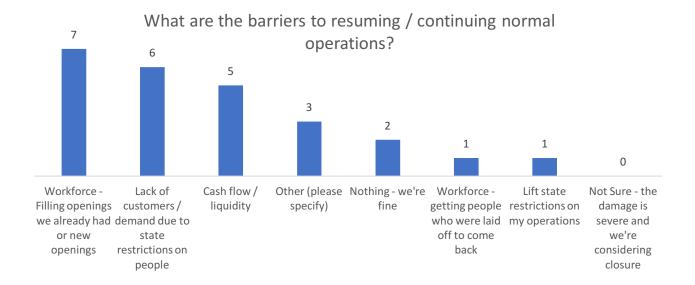




When asked whether they anticipated rehiring previous employees or seeking new hires, three indicated that they would be hiring people back and anticipated a total of eight rehires. Four anticipate making new hires, with a total in the range of 22 new hires.

Finally, to understand the diversity of problems businesses experienced due to COVID-19, we asked respondents to share the major barriers to resuming or continuing normal operations. They were able to select more than one answer. The lack of workforce was the most often cited barrier, more so than lack of customers and demand. The third most cited barrier was cash flow and lack of liquidity. None of the respondents said they were considering closure. In addition to the survey options as illustrated in the chart (below), some cited additional barriers or questions:

- Workforce safety and the challenge of creating a safe environment particularly for employees with special health needs
- PPP funds running out in mid-June and sales not yet at a level to support full staff
- Customers who depend upon large crowds / tourists
- Trade shows and large retail fairs cancelled
- Not sure! Still in early phases of bringing employees back



# Best Practices of Demand-Driven Pipeline Development

The primary goal of this survey is to assess the demand for labor among employers in the Windham region - now and in the near future - for certain workers. As indicated, workforce development is a regional and state priority. BDCC's task is to compile accurate regional data on workforce needs to extend to workforce development partners who may execute the training and education necessary to prepare and assist jobseekers, and to help meet the demand for these workers among the region's employers.

This survey illustrates abundant opportunity for current and future jobseekers within the production and manufacturing occupations. Demand-driven workforce development revolves around the creation of flexible and accessible education and training pipelines that lead directly to employment in high-wage, high-opportunity occupations. The data collected through the Hiring Needs Assessment can be leveraged to increase relevant skill development at every level of education attainment, decreasing targeted vacancies through adjustments and improvements in curricula, delivery methods, access (financial and geographic), and overall student preparedness.

The list below focuses on existing systems and institutions that prepare people for production and manufacturing occupations and demonstrates the best practices in how to engage with these organizations in demand data.

• Skill Integration into Secondary Education: In many instances, starting a career in manufacturing only requires a GED-equivalent level of education. This places an increased need on the secondary education system to ensure that employability, interpersonal, and transferable skills are well integrated into coursework for all students. Career awareness, preparedness, and readiness training, as well as proficiency in basic math and writing, are imperative to a successful workforce pipeline. These activities include site visits, job-shadows, mock interview and resume practice, internships, and work-based learning experiences. This



- requires sustained support from school leadership, faculty, and guidance counseling departments, as well as relationships with employers local to the student body.
- Vocational, Technical, and Career Education: Despite not always requiring post-secondary education, production and machine-based occupations often require technical skills beyond the employability and transferable skills offered through traditional secondary education courses. For positions in CNC Machining and Maintenance Technicians, additional math skills and computer skills may be required or highly preferred. In these instances, Career and Technical Education Centers (CTE's) often provide access to specific technical skills for students through Advanced Manufacturing and Engineering programs. By statute, public CTE centers provide local employers bi-annual opportunities to inform and support program design and curricula to best prepare students to enter their respective industry. The Program Advisory Boards should include as many employers as possible, but consider consultation methods that minimize demands on employer time and maximize opportunities to refresh curriculum based on changing workplace needs. These consultations can be supplemented and/or supported by Hiring Needs Assessment data.
- Adult & Post-Secondary Credentialing, Certification, and Degrees: Adult and Post-Secondary
  certification and credentialing programs, offered at CTE centers of community colleges, often
  align directly with high-demand occupations available within the community, and may be the
  most cost-effective opportunity for careers that do not require an Associates or Bachelor's
  degree. Community and/or state colleges that deliver Industry Recognized Credentials are
  often willing to contract with local employers to adapt training curricula to suit a specific
  workforce needs.
- Data-Sharing with Workforce Partners: In order for a system to be responsive to employer-demand, this data must be shared with other organizations supporting job-seekers. Human Service organizations, Corrections, Labor Departments, and organizations supporting recovery and rehabilitation often serve as training providers for their clients. Sharing demand data with these institutions allow them to incorporate employability and technical skills to ensure trainees, especially those with barriers to employment, are best prepared to enter high-wage, high-opportunity occupations.
- Industry-Specific Recruitment and Awareness Marketing: This data is also important to leverage to communicate recruitment opportunities to job-seekers that may already have the appropriate skills, but may be looking to relocate or change careers from outside of the region. Being able to identify a geographic location as having an abundance of opportunities for individuals with specific skill sets allows job-seekers to have a greater level of confidence when considering relocation, and is aware of support and resources to ensure they are retained.

# Current Resource Snapshot for Windham County

 BDCC Pipelines & Pathways Program (P3) in Brattleboro, VT is a career awareness and preparedness program that is designed to leverage Act 77 to better connect students to local high-wage, high-growth employment opportunities after high school. The program offers inclass and supplemental resources and workshops, ranging from cover letter assistance and



Mock Interviews, to Alternative Pathway Exploration and Employer Site Visits. P3 is working to ensure every student has the means to become "Windham Work Ready."

- Windham Regional Career Center (WRCC) in Brattleboro, VT offers a Manufacturing track that covers a variety of Machining, Production, and Robotics skills.
- River Valley Technical Center (RVTC) in Springfield, VT offers an Advanced Manufacturing and Engineering track for high school students, similar to WRCC.
- Community College of Vermont (CCV) in Multiple Locations in VT offers an online Certified
  Production Technician program including an Industry Recognized Credential from the
  Manufacturing Skills Standards Council, a national industry group. The program is structured
  to support many of the technical and transferable skills that are typical of production and
  manufacturing careers. Many programs partner directly with local staffing agencies,
  connecting employers with potential hires without the need to use additional hiring tools.
- Greenfield Community College (GCC) in Greenfield, MA offers a wide variety of adult training
  programs directly related to Production and Manufacturing careers. Ranging from OSHA 10
  and Foundational Manufacturing workshops to CNC Programming and advanced Welding,
  the collection of skills and trainings available at GCC align directly to demands in this
  Assessment.



#### Appendix A: Survey Respondents

Against the Grain Gourmet

Allard Lumber Co. Back Roads Food

**Best Wood Custom Sawing** 

Bradford Machine Chai-Wallah

Chroma Technology Corp. Commonwealth Dairy

**Fulflex** 

Grafton Village Cheese Halladays Harvest Barn Hermit Thrush Brewery Howard Printing, Inc. Jamaica Cottage Shop, Inc. Lyman's Specialties

New England Hardboard

Omega Optical

**Putney Mountain Winery and Spirits** 

Round Mountain Fibers, LLC

Sawyer Bentwood, Inc.

Shapeshifters Sidehill Farm

**Sonnax Transmission** 

**Swiss Precision** 

**Tavernier Chocolates** 

**Vermont Dinners** 

**Vermont Distillers** 

**Vermont Hardwoods** 

Vermont Vermouth

Whetstone Craft Beers

Whitney Blake Company

#### Appendix B: Southeastern Vermont Workforce Provider Contact List

Vermont Department of Labor

Cindy Delgatto, Regional Manager (Brattleboro

and Springfield)

Cindy.Delgatto@vermont.gov

VocRehab

Shawn Garland (802) 251-2140

shawn.garland@partner.vermont.gov

28 Vernon St., Suite 400

Brattleboro, Vermont 05301-3675

Community College of Vermont

Leigh Marthe, Coordinator of Student Advising

802-254-6370

lcm02280@ccv.vsc.edu 41 Harmony Place Brattleboro VT 05301

Vermont Technical College

Becky Steele, Site Director (Southeast Region)

802-257-2845 esteele@vtc.edu 41 Harmony Place Brattleboro VT 05301 Southeastern Vermont Community Action

Denise Mason, Economic Development Director

802-722-4575 Ext. 150

dmason@sevca.org

91 Buck Drive

Westminster, VT 05158

Vermont Manufacturing Extension Center

Lisa Henderson, Director of Client Services

802-299-1456

lhenderson@vmec.org

P.O. Box 12

Randolph Center, VT 05061

Windham Regional Career Center

Nancy Wiese, Director

802-451-3911

nwiese@wsesdvt.org

80 Atwood Street

Brattleboro, VT 05301

River Valley Technical Center

Scott Farr, Director

802-885-8301

sfarr@rvtc.org

307 South Street

Springfield, Vermont 05156



#### Appendix C: O\*Net Common Skill Requirements for Production / Manufacturing Jobs

According to O\*Net's broad analysis of the jobs that fall within our Production and Manufacturing scope, specific skill development and software aptitude is consistent across all positions. These positions and skills are not exhaustive, but they represent common expectations within the sector.

#### **Packaging and Filling Machine Operators and Tenders**

Production and Processing — Knowledge of raw materials, production processes, quality control, costs, and other techniques for maximizing the effective manufacture and distribution of goods.

Mechanical — Knowledge of machines and tools, including their designs, uses, repair, and maintenance.

Public Safety and Security — Knowledge of relevant equipment, policies, procedures, and strategies to promote effective local, state, or national security operations for the protection of people, data, property, and institutions.

Operation and Control — Controlling operations of equipment or systems.

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

Computer aided design CAD software — Autodesk AutoCAD

Mechanical — Knowledge of machines and tools, including their designs, uses, repair, and maintenance.

Mathematics — Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.

Production and Processing — Knowledge of raw materials, production processes, quality control, costs, and other techniques for maximizing the effective manufacture and distribution of goods.

Design — Knowledge of design techniques, tools, and principals involved in production of precision technical plans, blueprints, drawings, and models.

Engineering and Technology — Knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.

#### **Packaging and Filling Machine Operators and Tenders**

Operation Monitoring — Watching gauges, dials, or other indicators to make sure a machine is working properly.

Monitoring — Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.

Active Listening — Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.

Coordination — Adjusting actions in relation to others' actions.

Operation and Control — Controlling operations of equipment or systems.

#### **Team Assemblers**

Coordination — Adjusting actions in relation to others' actions.

Monitoring — Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.

Quality Control Analysis — Conducting tests and inspections of products, services, or processes to evaluate quality or performance.

Active Listening — Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.

Critical Thinking — Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.

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