



NRV Manufacturers Persevere Through Pandemic, Sector Outlook Positive

FOR IMMEDIATE RELEASE

December 15, 2020

NEW RIVER VALLEY, VA - In September 2020, Onward New River Valley conducted a survey of manufacturing companies in Virginia's New River Valley. The goal of the Industry Competitiveness Survey was to better understand how local manufacturing companies were operating and adapting in the wake of COVID-19. The survey was intended to identify common challenges among local companies and expose best practices that would support the overall competitiveness and continued growth of the local manufacturing industry.

Survey responses were collected during a two-week period in September 2020. The survey was sent to 35 manufacturers in Virginia's New River Valley (NRV) with 48% responding. The survey results, along with individual interviews, revealed several insights about the manufacturing industry in the region; these insights are described below.

Operating Status

Overall, manufacturers in the NRV have persevered through the COVID-19 pandemic with varying impacts on their operations. The vast majority (76%) of respondents reported operating at or above pre-pandemic capacity, while 24% indicated operating at about half capacity. Roughly half of respondents indicated a decrease in their sales pipeline (43%) and overall revenue (52%).

Survey respondents seemed to signal that their supply chains had only been moderately impacted by the COVID-19 pandemic. Less than one-third of respondents reported increased costs for either inputs/raw materials (29%) or freight (27%). Almost half of respondents reported experiencing an increase in supplier lead times (48%) and a reduction in the availability of inputs/raw materials (43%).


However, these changes in the supply chain do not seem to be affecting production levels for NRV manufacturers. Two-thirds (66%) of respondents reported stable or increasing production levels.

Employment

Employment through manufacturing companies in the NRV has remained mostly stable during the pandemic. The majority (62%) of respondents said their number of employees remained the same or increased since the beginning of the pandemic. Of the 38% of respondents that

ONWARD NEW RIVER VALLEY

2020 Kraft Drive, Suite 2000, Blacksburg, VA 24060 | 540-267-0007



reported a reduction in employees since the beginning of the pandemic, the majority (63%) anticipated rehiring eliminated positions within a year of the survey date.

Over half (62%) of respondents reported having unfilled job openings. The types of unfilled positions varied among respondents, but a need for both production workers and engineers was a consistent theme. There is clearly a continuing need for talent recruitment and retention efforts across the manufacturing industry in NRV.

Health & Safety Concerns

In late September, over three-fourths of respondents indicated that at least 90% of their employees were physically working on-site. With most employees in the NRV manufacturing industry working in person amid the pandemic, it is no surprise that a large majority (81%) of respondents reported that health and safety was one of their current top three concerns for their business. Manufacturers have devoted significant attention to implementing new public health policies and technologies to keep their employees safe and their operations running during the pandemic.

NRV manufacturers have increased the number of employees that are working remotely to help mitigate these health and safety concerns. Pre-pandemic, only one respondent (5%) reported having more than 5% of their employees working remotely, which increased to 62% of respondents by late September. This increase in remote work for some employees could be designed to offset the increased needs for physical space to comply with regulations and distancing requirements. One survey respondent stated that “physical distancing mandates are only feasible with a partial remote workforce.”

Overall Industry Outlook

Manufacturing leaders signaled an overall positive outlook for the coming year. Almost three-fourths (71%) of respondents anticipated that the remaining duration of COVID-19 impacts on their business would resolve within one year from the survey date.

Respondents were asked to give their overall outlook on the status of their company over the next 6-12 months. The vast majority (90%) of respondents reported that they had a steady or positive outlook for their company during that time period.

Leaders were also asked to forecast how many employees they anticipated having within six months to one year. Almost two-thirds (62%) of respondents expected a modest or significant increase in employment levels within a year, with no one anticipating a reduction in employees.

Learn more about the survey and read a final report of the results below.



ONWARD NRV Manufacturing Sector: Conditions and Outlook Report

**Prepared by the Virginia Tech Office
of Economic Development**

**Authors: Scott Tate, Elli Travis, Trey
Gordner, Elena Muraca**



**OUTREACH & INTERNATIONAL AFFAIRS
VIRGINIA TECH.**

OFFICE OF ECONOMIC DEVELOPMENT

**FOR ANY QUESTIONS REGARDING THIS PROPOSAL,
OR FOR MORE INFORMATION, PLEASE CONTACT:**

**Scott Tate
Associate Director
Virginia Tech Office of Economic Development
(540) 231-2351
Atate1@vt.edu**

Table of Contents

| | |
|--|----|
| Executive Summary | 3 |
| The Manufacturing Sector: A Brief Summary | 3 |
| Manufacturing Survey Response | 5 |
| Section I: The Participants | 5 |
| Section II: Impact of COVID-19 | 6 |
| Section II.I: Workforce Impacts | 8 |
| Section IV: Concerns & Opportunities | 11 |
| Appendix A: Selected Reasons for Top 3 Concerns | 13 |
| Appendix B: MFG Survey – Responses to Additional Open Answer Questions | 14 |

Executive Summary

Onward NRV engaged the Virginia Tech Office of Economic Development (OED) to assist with gathering information on the conditions and outlook for regional firms in the manufacturing and information technology sectors.

The OED team conducted an electronic survey of selected manufacturing and information technology sector companies in the New River Valley in September of 2020. In addition, the OED team interviewed selected company leaders in each sector to more fully explore survey results and conditions. The project included a brief scan of global and national sector trends and conditions, mainly for comparison with regional data. The surveys, and interviews, represent a purposive or convenience sample. In other words, the respondents were a selected sub-group of companies identified by Onward NRV, and the results are instructive and useful, but do not comprise a representative sample of companies. Our report includes this executive summary and a summary of survey results for each sector. The survey response summaries exclude partial or incomplete submissions.

The Manufacturing Sector: A Brief Summary

Manufacturing is a regional economic strength. Just prior to the pandemic, there were 12,694 jobs in this sector in the New River Valley localities of Floyd County, Montgomery County, Pulaski County, Giles County, and the city of Radford. This was 108% greater than the national average for manufacturing jobs. The average earnings per job were \$72, 199. The sector was also growing, with an increase in total jobs of 1,346 over the previous five years (nearly 12%). The sector's total Gross Regional Product in 2019 was \$1.9 billion (including earnings, property income, and taxes paid).

The 2020 pandemic significantly affected the global and national manufacturing sector. A National Association of Manufacturing survey in early March of 2020 found that over half of U.S. manufacturing firms anticipated a significant change to their operations. At that time, over a third of companies (35.5%) were already reporting significant supply chain disruptions. Interestingly, even prior to the pandemic, many companies had begun global supply shifts, according to an industry report from Deloitte. In 2019, U.S. manufacturing imports from China declined by 16% from previous year and imports from Mexico also increased significantly, partly due to trade and tariff concerns.

During the first half of 2020, total manufacturing sector employment in the United States decreased by 1.3 million (representing over 10% of total sector employment). Employment began to rebound in the second half of 2020. Manufacturing job openings in August reached 460,000, up from 430,000 in July and the best reading since July 2019 (477,000). Still, many expect the recovery will be slow and extended. A September survey from the National Association of Manufacturing found that 62% of manufacturers expect their firm's revenues will not get back to pre-COVID-19 levels until 2021 or later.

Our survey of NRV manufacturers included 21 responses from 17 companies, with at least one respondent from each of the five NRV jurisdictions, and a wide array of manufacturing industries/types represented, with the largest groupings in chemical and automotive/transportation.

A key finding is that area firms are experiencing the pandemic differently with about a third of respondents STRAINING (reducing workforce, decreasing production, declining revenue), a third of respondents MAINTAINING (relatively stable in employment, production, revenue), and over a third were ADVANCING (adding workers or increasing production or revenues). The top three concerns of respondents were health and safety issues; workforce; and legal/liability concerns.

Talent and workforce availability in NRV was a shared interest, with many companies having a difficult time filling and retaining workers in lower skilled positions and some having a more difficult time with more specialized expertise.

Most respondents (over half) in the region anticipate a positive outlook over the next six months with only two expecting a negative outlook.

Manufacturing Survey Response

Section I: The Participants

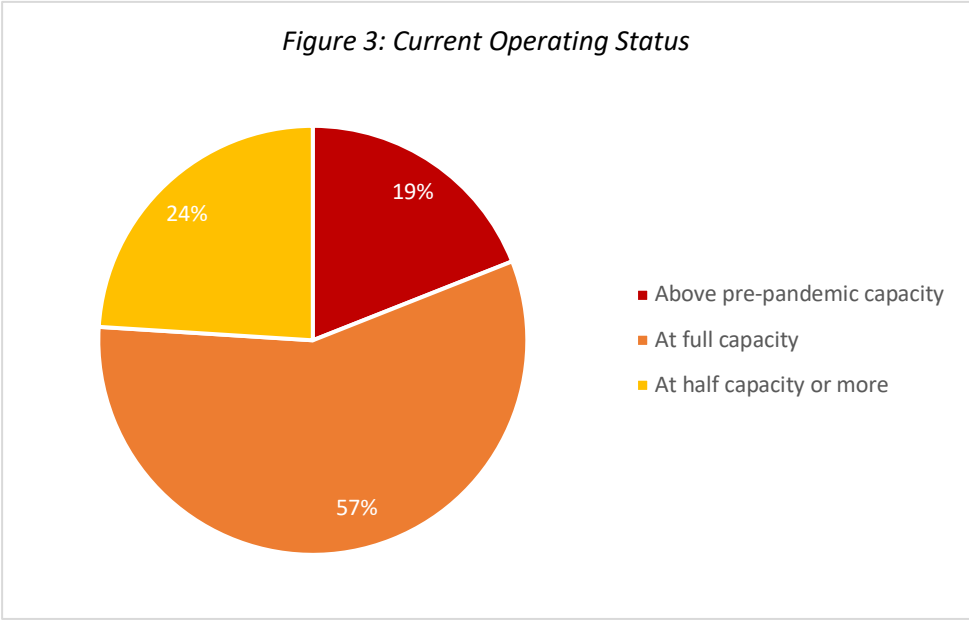
The survey received 21 responses. There was at least one respondent from each of the five NRV jurisdictions (Fig. 1) and a wide range of industries represented (Fig. 2).

| <i>Figure 1: Regional Site Location of Respondents</i> | |
|--|-----------|
| City of Radford | 1 |
| Floyd County | 2 |
| Giles County | 5 |
| Montgomery County | 8 |
| Pulaski County | 5 |
| Total | 21 |

| <i>Figure 2: Industries of Respondents</i> | |
|--|-----------|
| Chemicals | 5 |
| Automotive | 3 |
| Automotive, Transportation | 2 |
| Metal Fabrication | 1 |
| Automotive, Machinery, Other | 1 |
| Food & Beverage | 1 |
| Automotive, Aviation, Defense, Electronics, Food & Beverage, Packaging, Plastics, Wood/Paper | 1 |
| Heavy Equipment, Machinery, Metal Fabrication, Packaging, Other | 1 |
| Pharmaceutical/Medical Devices | 1 |
| Other (Consumer Products) | 1 |
| Construction Products | 1 |
| Plastics, Textiles, Other | 1 |
| Defense, Energy, Transportation, Wind/Renewables/Energy Storage | 1 |
| Electronics | 1 |
| Total | 21 |

Section II: Impact of COVID-19

The majority of respondents are running at full capacity or above compared to pre-pandemic levels (Fig. 3). No respondents selected “less than half capacity”, “temporarily closed” or “permanently closed.”



Respondents were asked to evaluate the impact of COVID-19 on 15 key business performance metrics (Fig. 4). Notable findings include:

- Roughly half of respondents report a decline in overall revenue, 40% report an increase in overall expenses, and half an increase in supplier lead times.
- Effects on number of employees, payroll in dollars, sales/product demand, and production levels vary widely across businesses, indicating a mix of pandemic “winners and losers”. Some respondents scaled up to meet new demand while others scaled back to reduce costs.
- One in three have experienced an increase in freight costs, a decrease in the availability of raw materials, or a decrease in inventory levels, indicating supply chain challenges.
- Hours of operation, sales prices, order sizes, and cost of raw materials remained the same for most respondents, but some report slight increases.

Figure 4: Reported Impact of COVID-19 on Key Business Metrics

| Areas of Interest | Substantial decrease | Slight decrease | No impact | Slight increase | Substantial increase | Distribution of Responses |
|--------------------------------------|----------------------|-----------------|-----------|-----------------|----------------------|---------------------------|
| Hours of operation | 0% | 19% | 67% | 14% | 0% | |
| Number of employees | 10% | 29% | 33% | 24% | 5% | |
| Payroll (\$) | 5% | 30% | 30% | 25% | 10% | |
| Your sales prices | 5% | 5% | 74% | 16% | 0% | |
| Your average order size | 10% | 10% | 55% | 15% | 10% | |
| Your sales/pipeline demand | 19% | 24% | 19% | 19% | 19% | |
| Inventory levels | 14% | 29% | 48% | 10% | 0% | |
| Production levels | 14% | 19% | 38% | 14% | 14% | |
| Number of products you offer | 0% | 10% | 76% | 14% | 0% | |
| Cost of inputs/raw materials | 0% | 0% | 71% | 29% | 0% | |
| Availability of inputs/raw materials | 10% | 33% | 52% | 5% | 0% | |
| Supplier lead times | 14% | 19% | 19% | 43% | 5% | |
| Freight costs | 0% | 5% | 68% | 16% | 11% | |
| Overall expenses | 0% | 25% | 35% | 35% | 5% | |
| Overall revenue | 5% | 47% | 21% | 11% | 16% | |

Respondents were divided on how long impacts may continue (Fig. 5). This highlights ongoing uncertainty, but also that some businesses may take longer to recover than others.

Figure 5: Expectations for Remaining Duration of COVID-19 Impacts

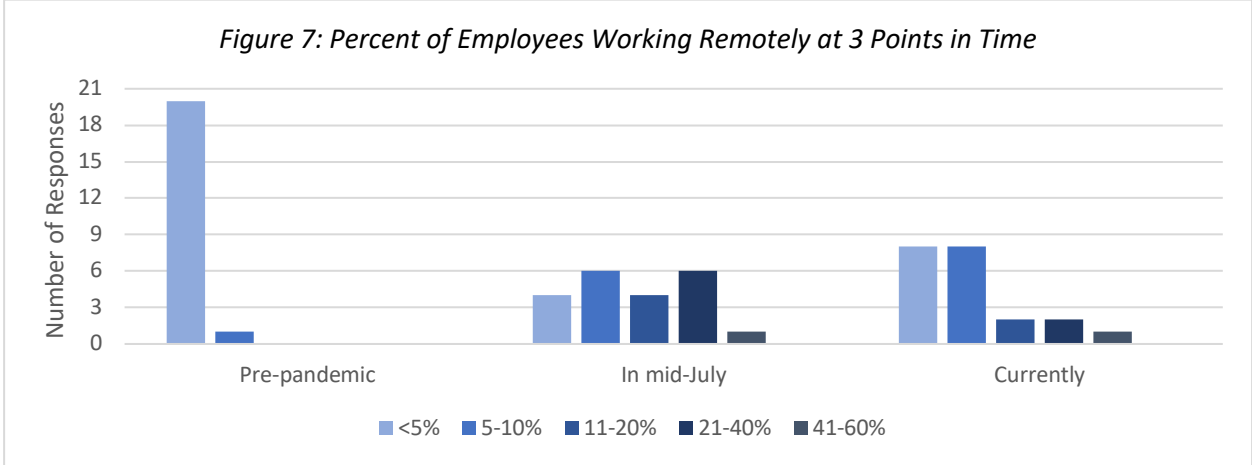
| | |
|--------------|-----------|
| (blank) | 2 |
| 1-3 months | 4 |
| 4-6 months | 5 |
| 6-12 months | 8 |
| 12-24 months | 2 |
| Total | 21 |

Section II.I: Workforce Impacts

The eight respondents who indicated that their number of employees had decreased were also asked when they anticipated rehiring for eliminated positions. Their responses are below in chronological order (Fig. 6).

| <i>Figure 6: Anticipated Rehiring Dates for Eliminated Positions</i> | |
|--|--|
| ✓ | currently rehiring but length of need very uncertain |
| ✓ | October 2020 |
| ✓ | December, 2020 |
| ✓ | Early 2021 |
| ✓ | Q1 2021 |
| ✓ | Summer 2021 |
| ✓ | Ultimately depends on increase in sales and workflow in the shop |
| ✓ | (blank) |

All respondents also provided the percentage of employees working remotely at three points in time: before the pandemic, in mid-July, and currently (late September). Just 1 respondent had more than 5% of employees working remotely in early 2020 (Fig. 7), but by mid-July, all but four respondents (83%) had a significant remote workforce. September’s numbers show that most respondents have scaled back their remote workforce from July but remain significantly above pre-pandemic figures.



When asked whether their needs for physical space had changed as a result of the pandemic, two respondents wrote that they would permanently allow remote work for certain non-production positions, even after the pandemic ends. A third commented that physical distancing mandates are only feasible with a partial remote workforce. These two comments may explain why remote work remains elevated.

Three respondents reported offering incentives for employees to work from home. One specified “equipment for home office if needed”, another “IT hardware and improved software/WebEx for remote working.” Three respondents also reported placing restrictions on remote workers, all of them concerning personal *travel*.

62% of respondents (13/21) say they have unfilled local positions.

Of the 21 respondents, 13 reported having unfilled positions in their local offices. Figure 8 details the job titles respondents described as “hard to fill”, along with the corresponding locations and industries.

| <i>Figure 8: Current and/or Recurring Open Positions that are Hard to Fill</i> | |
|--|--|
| Job Title | Industry |
| All manufacturing positions | Consumer Products |
| Biological Materials Technician, Quality Control Technician | Pharmaceutical/Medical Devices |
| Operations Associates, Process Engineer, Controls Engineer, and Contract employees | Automotive |
| Operators | Chemicals |
| Production employees, Mechanics, Electricians | Construction Products |
| Production Technician, Process Engineer | Plastics, Textiles, Other |
| Quality Engineer, Controller | Automotive, Machinery, Other |
| Quality Engineers, Product Marketing Managers, Machinists | Automotive, Aviation/Aerospace, Defense, Electronics, Food & Beverage, Packaging, Plastics, Wood/Paper |
| see company posting site | Automotive |
| Software Developers, Cyber Security Experts | Defense, Energy, Transportation, Wind/Renewables/Energy Storage |
| Software Engineer | Electronics |
| Stewardship Leader | Chemicals |

One obstacle may be a lack of diversity. When asked whether a lack of racial diversity, at their company or in the area, had a negative impact on recruiting diverse candidates to these positions, seven responded “Yes”, six “No” and eight were “Unsure”.

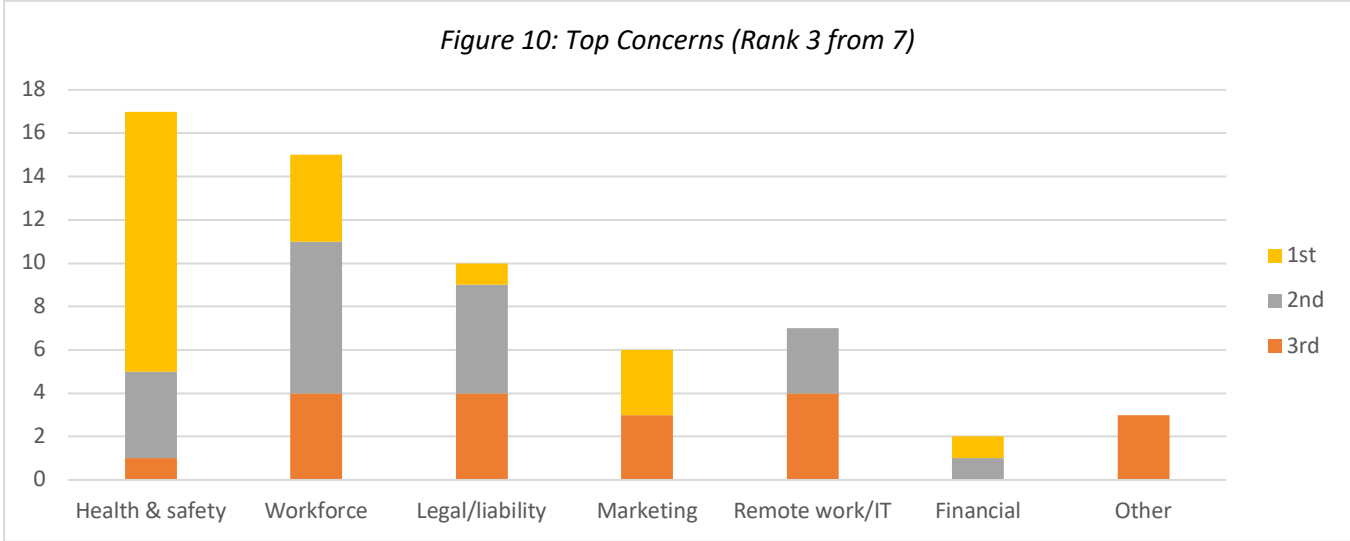
Respondents were also asked to estimate how many employees they would have six months and one year from now. All respondents expect headcount to remain about the same or increase across both periods. No respondent selected “A modest decrease” or “Significantly less.” However, of the eight respondents who indicated that their number of employees had decreased above, just one expected “significantly more” employees within one year, with five answering “a modest increase” and two “about the same”. This suggests that companies in the NRV who reduced their force during the pandemic may be slow to rehire.

Figure 9: Expected Headcount in 6 and 12 Months

| | In 6 months | In 6 mos. (%) | In 12 months | In 12 mos. (%) |
|--------------------|--------------------|----------------------|---------------------|-----------------------|
| Significantly more | 0 | 0% | 3 | 14% |
| A modest increase | 10 | 48% | 10 | 48% |
| About the same | 11 | 52% | 8 | 38% |
| Total | 21 | | 21 | |

Section IV: Concerns & Opportunities

To help formulate content for the upcoming virtual summit, respondents were asked to rank their top three concerns. Health & safety was the first choice for the majority, and also appeared in the top three for 17 of 21 respondents (Figure 10). Workforce concerns, such as recruiting, training, and company culture, are a close second. “Other” concerns were “Incoming Sales”, “Maintaining COVID protocols”, and “Zoom meetings (are they the future of business contacts?)”.



Respondents were also asked to indicate if they would be interested in a peer-discussion format or expert-led seminar on 14 pre-selected topics and invited to suggest their own. The top two vote-getters, with seven each, were “Employee morale and company culture” and mask-compatible communication tools and strategies (Figure 11).

| <i>Figure 11: Virtual Summit Topics of Interest</i> | | <i>Votes</i> |
|--|--|--------------|
| Employee morale and company culture | | 7 |
| Communication tools and strategies to offset masks, social distancing, and other safety requirements | | 7 |
| Managing parents in light of changes to public schools | | 6 |
| Complying with new workforce safety rules | | 5 |
| Growth management/growing your customer base | | 5 |
| Altering or reconfiguring physical spaces | | 5 |
| Legal liability to employees, suppliers, or clients | | 5 |
| Addressing a lack of employee diversity | | 4 |
| Marketing/business development (including strategies for acquiring new business virtually and in-person) | | 4 |
| Response planning if an employee tests positive | | 4 |
| Family Medical Leave Act and COVID-19 | | 3 |
| Federal, state, and local relief programs | | 2 |
| Managing remote workers | | 1 |
| Offering/managing internships and co-ops during COVID-19 | | 1 |

Additional topics suggested:

- Shortage of workers
- Will business travel reduce as dramatically as we think that it will?
- What will be the new norm for business attire?
- Hiring/onboarding new employees and keeping our culture

Overall, respondents remain optimistic about the overall outlook for their business in the NRV over the next 6-12 months (Figure 12), with just 2 respondents indicating negative expectations.

| <i>Figure 12: Overall Outlook (6-12 Months)</i> | |
|---|-----------|
| Slightly negative - we see continuing but moderate negative impacts ahead | 2 |
| Steady state - we expect no major changes | 7 |
| Slightly positive - we expect moderate growth | 8 |
| Very positive - we expect to grow and thrive | 4 |
| Total | 21 |

“We have devoted a lot of energy to make our employees, and their families, safe. This is without regard to what happens to the bottom line. Eventually, we'll need to return the focus to gaining, and retaining, business.”
 - Survey respondent

Appendix A: Selected Reasons for Top 3 Concerns

Manufacturing

*For concerns 1 & 2, our priority is to "do the right thing" while no one knows for sure exactly how to do it. For number 3, it's understanding strategy on **how to counteract commercial downturn**.*

*Covid will be with us for a while. Hiring people during a pandemic is a challenge. **What will our liability be when an employee becomes ill with Covid-19?***

***Recruiting the talent we need has been an issue even before the pandemic.** Health & safety is even more of a concern during the pandemic and could have a huge impact on our business.*

***Preventing transmission of disease** in the workplace while minimizing the impact on operations is my top pandemic related concern. I am always concerned about attracting and retaining diverse talent.*

*"#1 because our core value and is key to **keep employees confident** their place of work is doing all it can*

*#2 One cannot survive a long crisis if the financials are not stabilizing. it would only be a question of time before it is unsustainable. Also, if you do not want to stall your development in the long term, you need to be able **quickly to recover and invest in tomorrow***

#3 Our workforce is the key to our success. You take it for granted and you will soon be obsolete."

*Most critical issue for us currently is **ability to hire necessary skills**.*

*Ensuring **employee health and safety** at this time.*

*We have devoted a lot of energy to **make our employees, and their families, safe**. This is without regard to what happens to the bottom line. Eventually, we'll need to return the focus to gaining, and retaining, business.*

***Diversity and Retention are constant issues**, pre and post pandemic*

***Health and safety** is always our top concern. We are also working to hire and train production technicians to meet business needs in the coming months.*

***Keeping employees safe and healthy** is the top priority. Finding and retaining a high quality, diverse work force is important.*

Appendix B: MFG Survey – Responses to Additional Open Answer Questions

Have your company's needs for physical space permanently changed as a result of the pandemic? – If so, please briefly describe how. (3 of 21)

- *“We are able to accommodate physical distancing in office and common areas due to a partial remote workforce, but we have had to spread out and production workstations and floor space is limited.”*
- *“We have found that a few positions - not directly related to production - can be worked from home.”*
- *“Will have fewer on site workers post pandemic and use hoteling/temporary workstations. Cancelled a build out project.”*

Which of your supplier(s) would you like to have a location in the NRV region? Please list the company name and/or the input they produce. (4 of 21)

- *“Aluminized foil bag/pouch that our chemical product is sealed in. Currently manufactured internationally.”*
- *“Castings/Spinnings. We use these a lot in our custom fixtures, but are very few and far in-between.”*
- *“MRO/spare parts suppliers”*
- *“Most of our spend with suppliers is for steel products. We currently don’t see a negative effect of not having a steel supplier in the NRV region.”*

Is your regional office unable to expand due to facility, equipment, specialized workforce, or financing issues? If so, briefly describe the barrier(s) you face. (3 of 21)

- *“Our barriers are associated with the manufacturing demands of the truck manufacturers in the area.”*
- *“Specialized workforce - cyber expertise”*
- *“We are seeing some challenges hiring entry level production workers”*