



NDIA VITAL SIGNS PULSE SURVEY

By: NDIA Strategy & Policy Team

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OBJECTIVE

Through conducting this survey and presenting the following analysis, NDIA seeks to understand the continued impact of the COVID-19 crisis on businesses operating in the defense sector.

INTRODUCTION AND BACKGROUND

In April 2020, NDIA was approached by the Department of Defense's (DoD) Office of the Under Secretary of Defense for Acquisition & Sustainment (OUSD(A&S)) to conduct a rapid-response survey of defense industrial base (DIB) members to determine how best the DoD could help the DIB respond to the COVID-19 crisis. In response to that request, NDIA provided DoD with a full report, including policy recommendations, in May 2020. You can view that initial report [here](#).

In June 2020, as the COVID-19 crisis continued to impact the country and the DIB, NDIA again set out to provide DoD with an analysis of how best to help struggling companies during this time. A follow-on survey was conducted before analysis and recommendations were delivered to DoD in July 2020. You can view that follow-on report [here](#).

Now, more than one year after the initial request of DoD, NDIA is again seeking to provide the Department and NDIA's membership with an analysis of how our member companies—and members of the broader DIB—are faring in the ever-changing landscape of 2021. As vaccine roll-outs and community re-openings accelerate, businesses are increasingly faced with new questions and challenges.

Launched in April 2021, this latest effort seeks to draw comparisons with previous datasets and bring to light new metrics.

SUMMARY OF FINDINGS

- Small businesses in the DIB—especially those with 25 or fewer employees—were by far the most likely to report large negative effects on their business rather than larger businesses.
- When comparing our findings within the DIB to the broader universe of U.S. small businesses (defined as those with 499 or fewer employees for the purpose of these surveys), small businesses in the DIB were 31.5% less likely to experience large negative effects due to the pandemic yet 18.7% more likely to experience moderate negative effects.
- At 41.1%, the most common factor affecting operating capacity was by far the “availability of employees to work.” “Physical distancing of customers or clients and/or limits on the number of concurrent customers or clients” was the second most responded factor at 9.6%.

- 18.5% of respondents said, “Our business has returned to its normal level of operations,” but 31.5% said they do not expect their business to return to a normal level of operations for “more than six months.”
- The four areas of operations most affected by the COVID-19 crisis as measured in this assessment are revenue expectations (41.7%), confidence in supply chain partners (31.7%), availability of workforce (30.5%), and ability to perform on contracts (29.6%).
- Nearly one in five companies categorized the COVID-19 crisis as having a “major impact” on their revenue expectations.
- 34.7% of businesses reported a major impact to revenue expectations in July 2020, which has fallen to 19.3% as of May 2021.
- 61% of the smallest businesses (25 employees or fewer) experienced a moderate or major impact on revenue expectations, compared to approximately 35% of the largest corporations.
- 39.5% respondents answered “Yes” when asked “Has your ability to perform on classified contracts been impacted by the COVID-19 crisis?” When compared to NDIA's previous COVID-19 surveys from April and July 2020, the portion experiencing impacts has steadily decreased from 88.5% in April 2020 and 70% in July 2020.
- When asked “Since January 1, 2021, if you have experienced disruptions in your cash flow as a result of the COVID-19 crisis, why?,” 64.7% of respondents indicated that they had experienced some form of cash flow disruption that could be tied to the COVID-19 crisis.
- Almost 85% of respondents said their business does not require proof of a COVID-19 vaccination before returning to in-person work. Slightly over 11% of respondents reported that proof of a COVID-19 vaccination is required or will be in the future.

METHODOLOGY

NDIA's Strategy & Policy Team developed the survey questions with input from NDIA members. The survey incorporated questions from the U.S. Census Small Business Pulse Survey, which has been distributed by the U.S. Census each month throughout the past year. Target groups included defense and manufacturing industry businesses that were both members and non-members of NDIA.

NDIA fielded the survey at 5:00 pm EDT on April 22, 2021. The survey collection closed at 12:00 pm EDT on May 13, 2021.

NDIA distributed the survey via the weekly *Policy Digest* column, social media, press releases, NDIA Connect, targeted emails to members, and during NDIA-hosted events that took place while the survey was open.

RESPONDENT INFORMATION

NDIA included a number of informational questions in the survey, covering five details: number of employees, annual revenue of company, percentage of work from DoD contracts, prime contractor status, and holding contracts with classified work. A total of 195 individuals provided data for this survey.

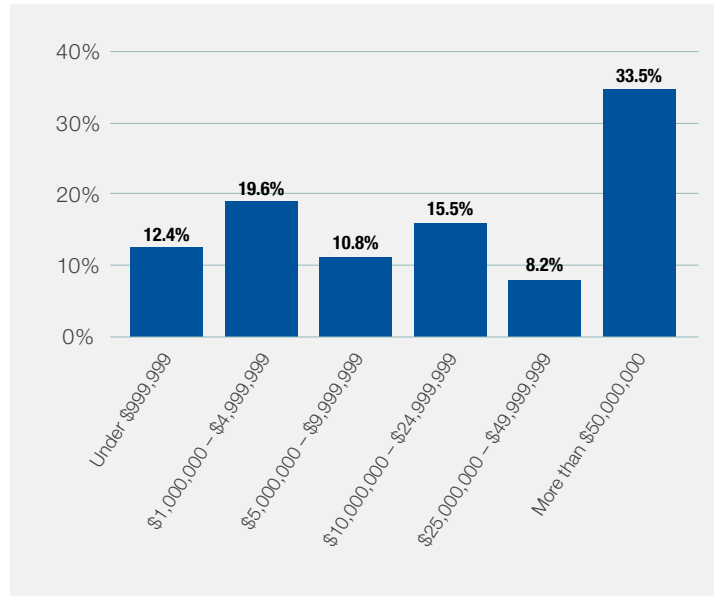


Figure 1: Percent of Respondents by Company Annual Revenue

In line with NDIA's members, the plurality of respondents skewed smaller in both annual revenue and number of employees. At this time, approximately 80% of NDIA's members are classified as small businesses.

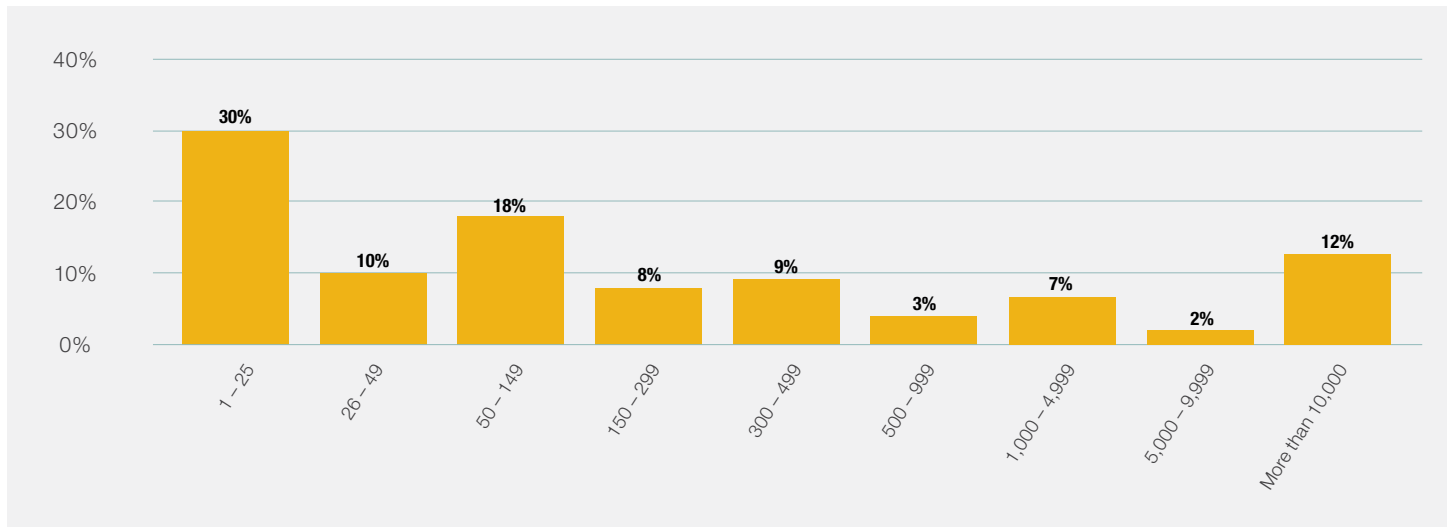


Figure 2: Percent of Respondents by Number of Employees

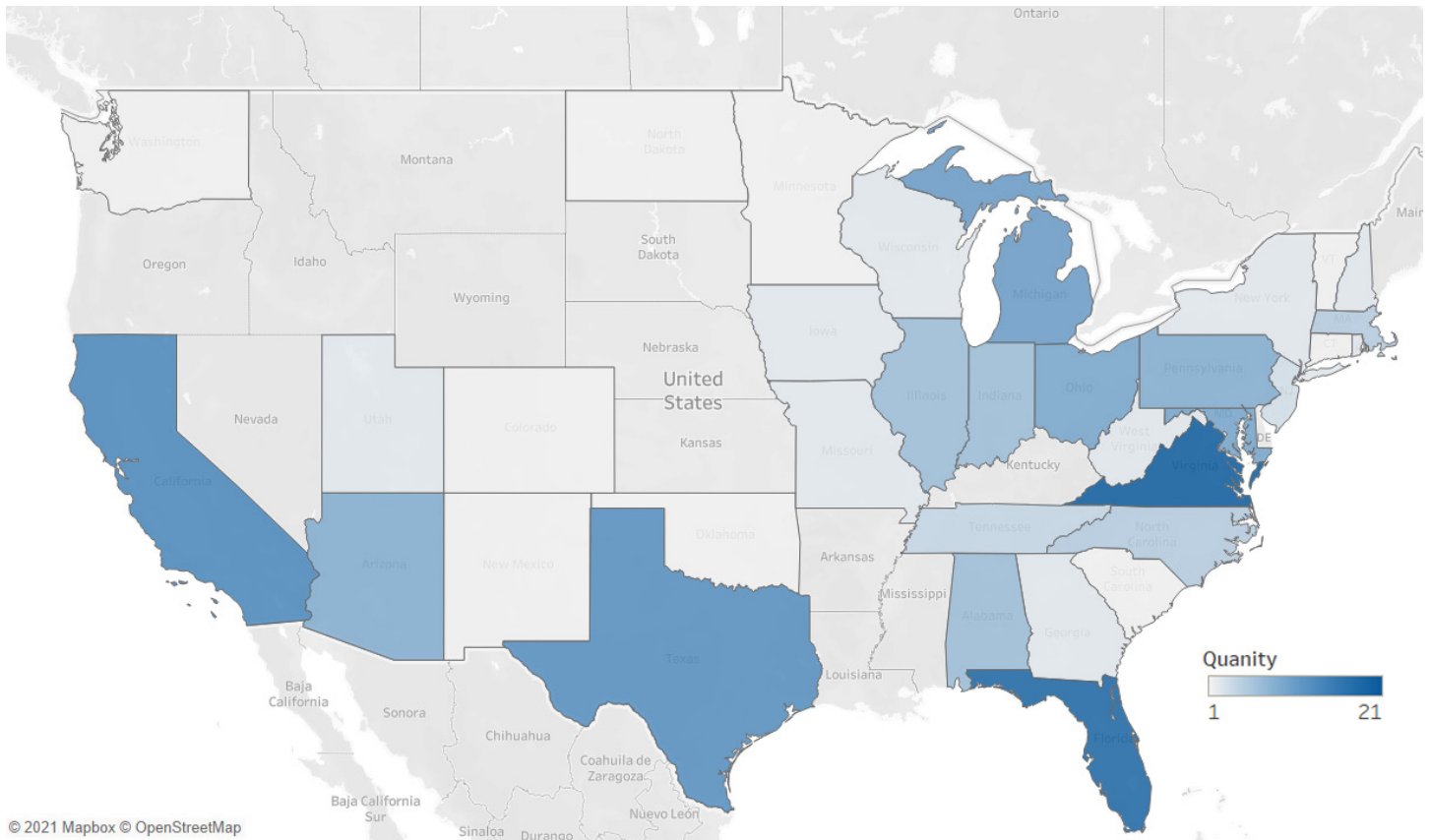


Figure 3: Map of Respondents by Zip Code

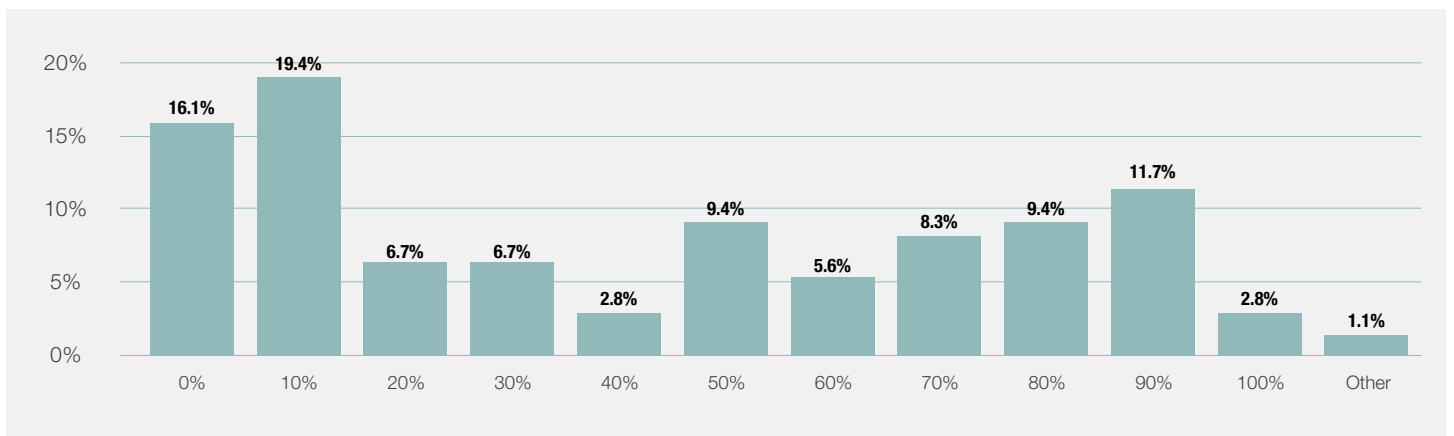


Figure 4: Percent of Respondents by Percent of Contracts Held as a Prime Contractor

Prime contractor status is important to help discern the flow of impacts on the analysis herein and determine whether there is a positive or negative effect by contractor status. While not a perfect measure, the percent of contracts a contractor holds as a prime contractor can help us to determine a respondent's position within the defense supply chain. As Figure 4 indicates, respondents mostly fell into a bimodal distribution.

MAJOR FINDINGS

Nearly four out of five (77.3%) businesses reported that the COVID-19 pandemic impacted them. Of these businesses, 85% said that the pandemic had negatively affected them. According to responses received for the survey's open-ended questions, this pronounced negative outcome appears to be due to a lack of in-person work as well as the economic downturn that delayed or cancelled projects and reduced revenues.

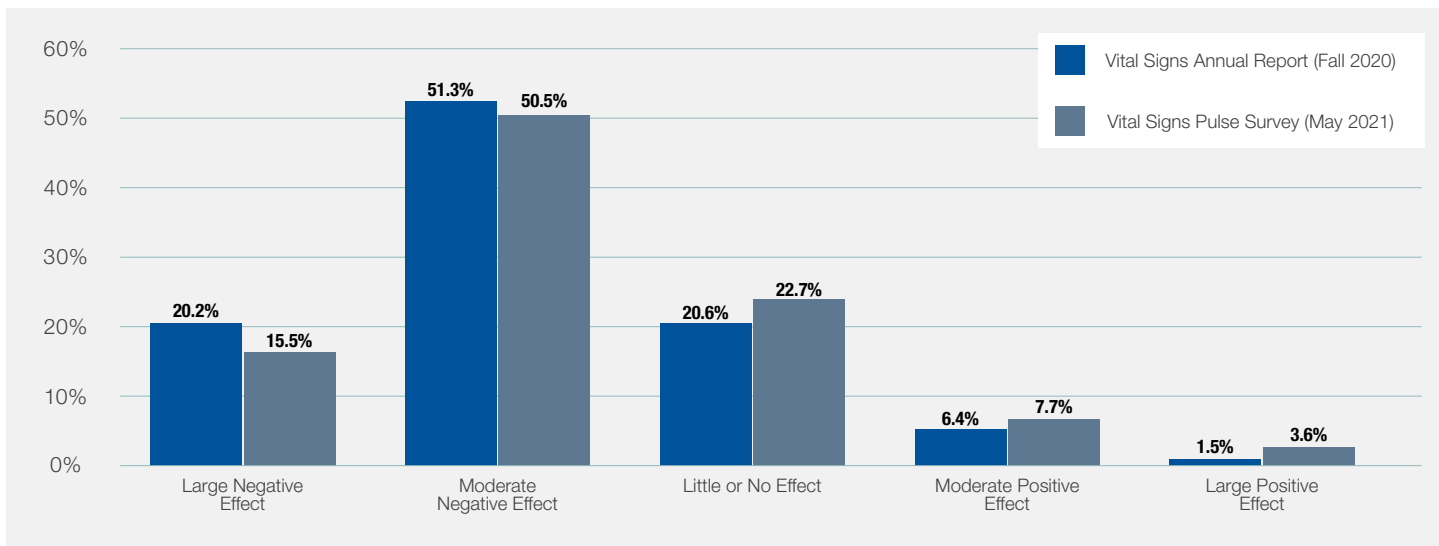


Figure 5: Effects of the COVID-19 Crisis on the DIB Over Time

A moderate negative impact was reported by 50.5% of all survey participants. This finding is significant because it is nearly identical to the percentage (51.3%) reported in NDIA's Fall 2020

[Vital Signs Survey](#). This correlation bolsters our understanding that more than 50% of defense industrial base members have felt a negative impact of the COVID-19 pandemic.

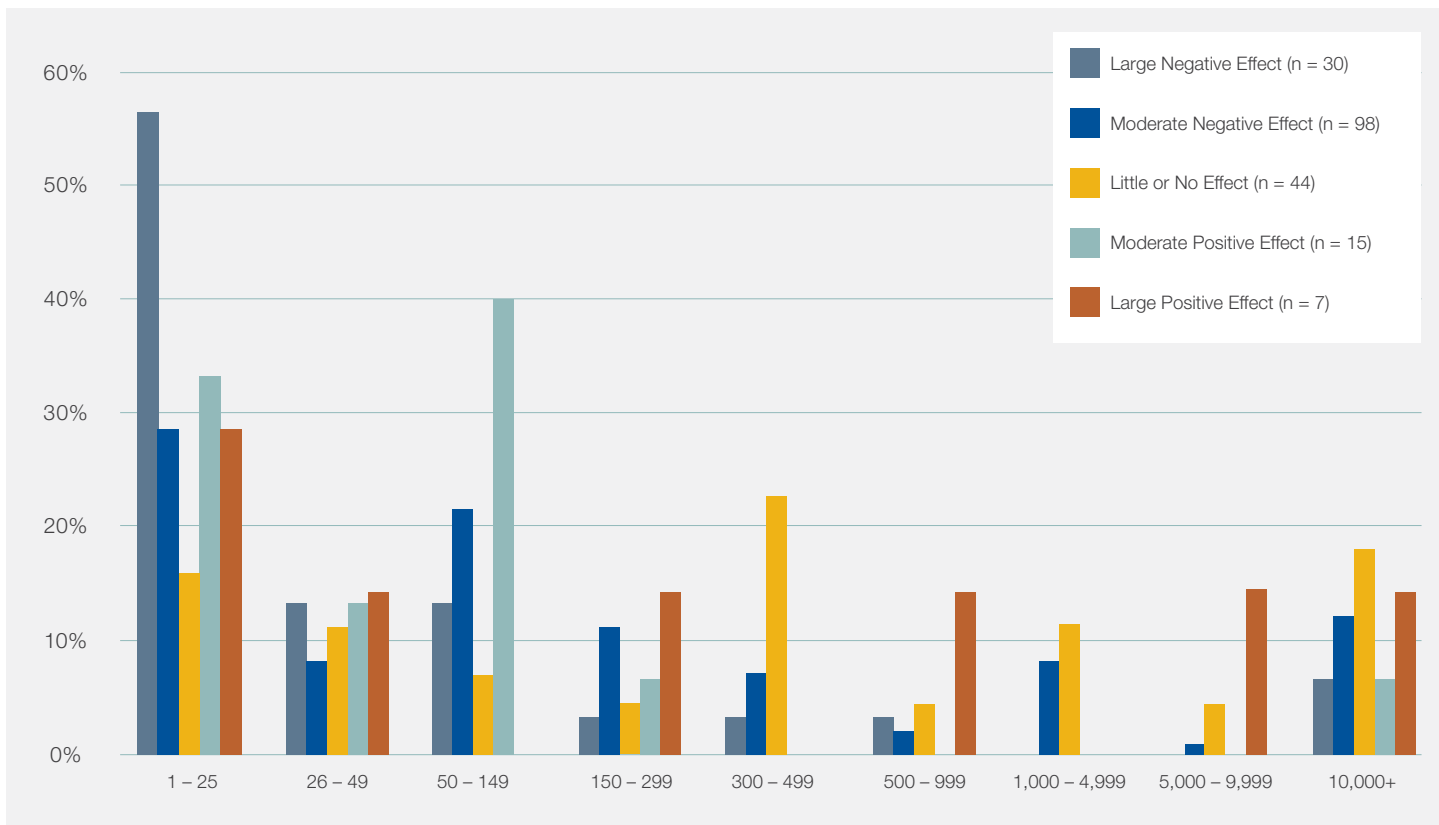


Figure 6: Percent of Companies Experiencing a COVID-19 Impact, by Size

Amongst businesses within the defense industrial base, all were not equally impacted. Small businesses in the DIB—especially those with 25 or fewer employees—were by far the most likely to report large negative effects on their business. Organizations with more than 300 employees were somewhat more likely to experience no effects, or even positive effects, resulting from the COVID-19 pandemic. This result could be due to the fact that larger organizations may integrate multiple business

sectors, including commercial business lines, thereby allowing them to pivot during a time of such crisis. Respondents from small businesses were also somewhat more likely to conduct a smaller percentage of their business on prime contracts, which may explain the difference as small contractors can be disproportionately impacted by the down-stream, amplified effects of revenue changes. Interestingly, amongst DIB businesses of all sizes, companies conducting either a high

or a low percentage of prime contracts were equally likely to report negative effects. Those in the middle, which conducted approximately 40-60% of their business on prime contracts, fared relatively better. However, like all businesses, they were

still likely to report negative effects, in part because of the ability of these mixed-contract-style businesses to diversify the source and sector of their revenue.

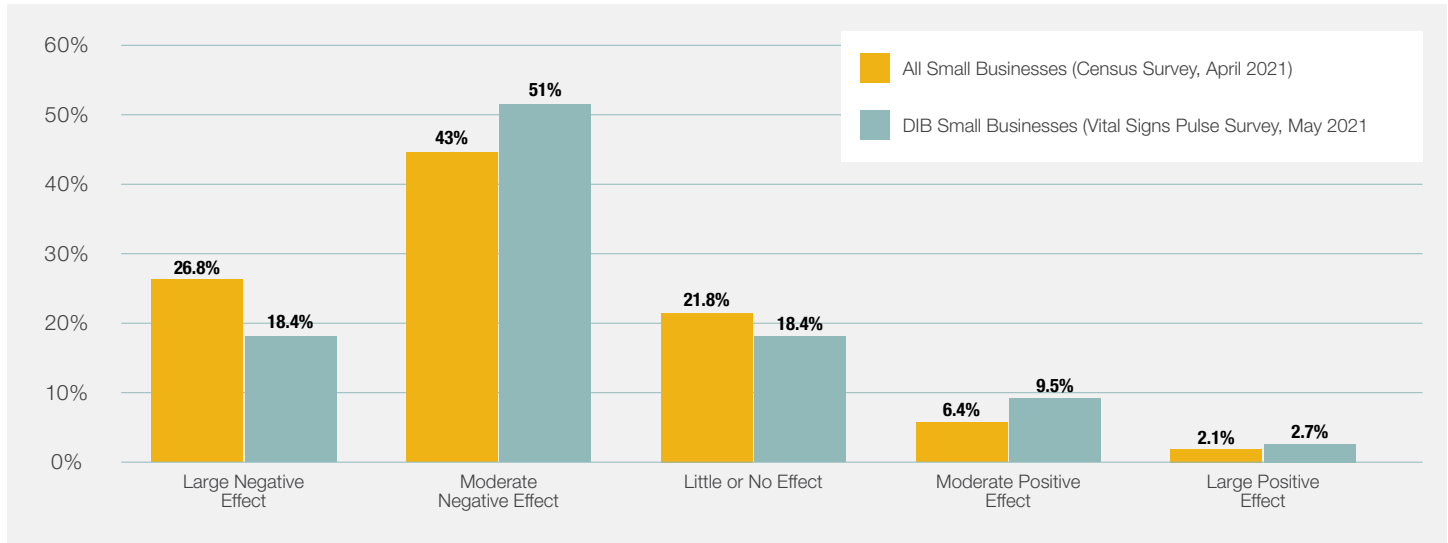


Figure 7: Impact of COVID-19 on Small Businesses (<499 Employees) Over Time

Data collected from this survey was compared to that of the U.S. Census Bureau's Phase 4 Small Business COVID-19 Pulse Survey (4/12/21 to 4/18/21).¹ Our findings indicate that, when compared to all U.S. small businesses (defined as those with 499 or fewer employees for the purpose of these surveys), small businesses in the DIB were 31.5% less likely to experience large negative effects due to the pandemic yet 18.7% more likely to experience moderate negative effects. This finding indicates that DIB small businesses received commendable public support in pursuit of assuring American national security and the safety of the warfighter, sparing some small businesses in the DIB from the

worst effects of the pandemic. This reality is in part the result of quick actions by both the Department of Defense and Congress to ensure that many DIB companies were able to maintain their operations throughout the last 15 months. However, when considering both large and moderate negative effects, 69.8% of all small businesses reported negative effects, compared to 69.4% of small businesses in the DIB. This DIB/non-DIB equity demonstrates that more small business support is needed, both within and outside of the DIB, to ensure that these businesses are able to robustly bounce back from the negative impacts of COVID-19.

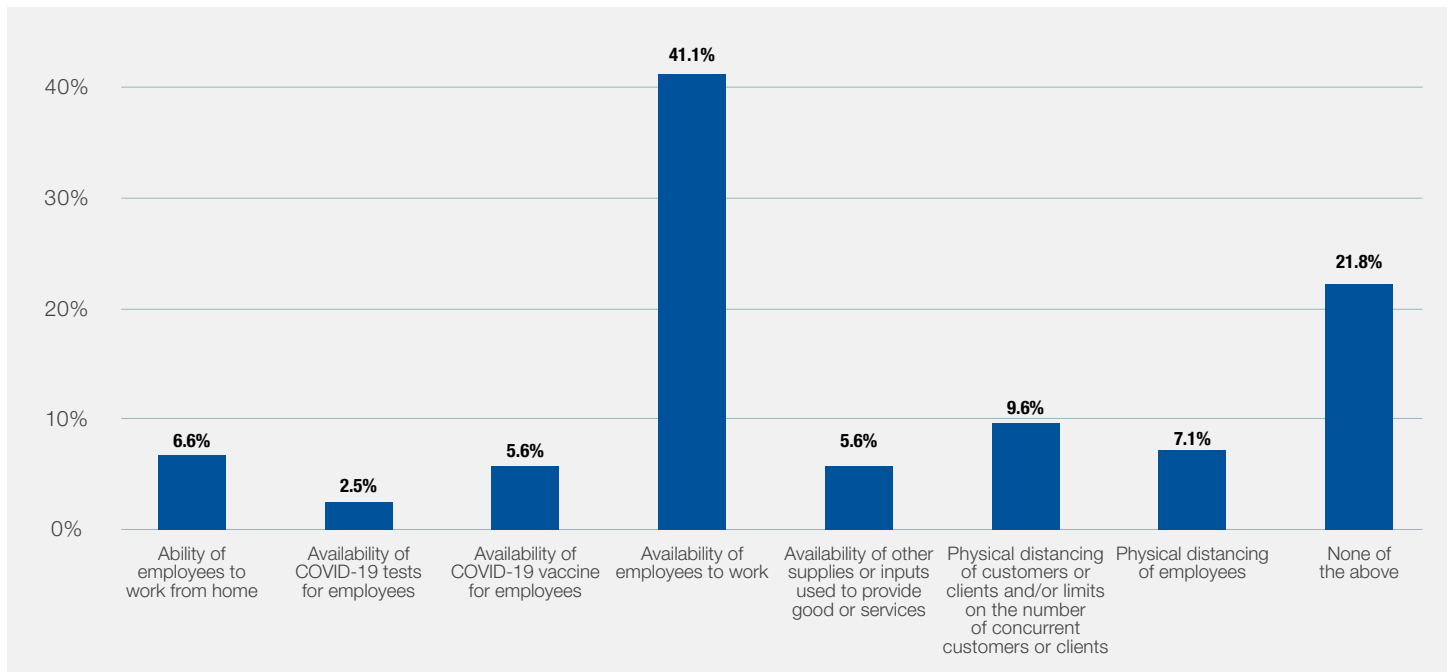


Figure 8: Factors Affecting Business Operating Capacity (Since January 1, 2021)

1 U.S. Census Bureau. Small Business Pulse Survey. April/May 2021.

Results of this survey indicate that businesses are not yet fully recovered from the COVID-19 crisis. Since January 1, 2021, defense industrial base members have continued to experience negative factors that affect operating capacity. When asked to select from a list of factors affecting operating capacity, approximately 1 in 5 businesses (21.8%) reported that “none of the above factors” had affected operating capacity. While it is positive that more than 20% of respondents are no longer experiencing an impact, this figure implies that at least one of these factors has affected operating capacity for approximately 4 in 5 businesses surveyed (78.2%). These figures illustrate the extent to which the COVID-19 pandemic continues to negatively impact operating capacity across the defense industrial base. Meanwhile, they also show the necessity of

continuing government and industry partnerships to address ongoing challenges.

At 41.1%, the most common factor affecting operating capacity was by far the “availability of employees to work.” Respondents selected the other five factors on the list far less often, with the second most frequent selection being “physical distancing of customers or clients and/or limits on the number of concurrent customers or clients” at 9.6%. This vast gap between the frequency at which “availability of employees to work” was selected and that of all other listed factors is significant as it can inform policymaking decisions, illustrating the ways in which these and other factors must be addressed to support business operating capacity across the defense industrial base.

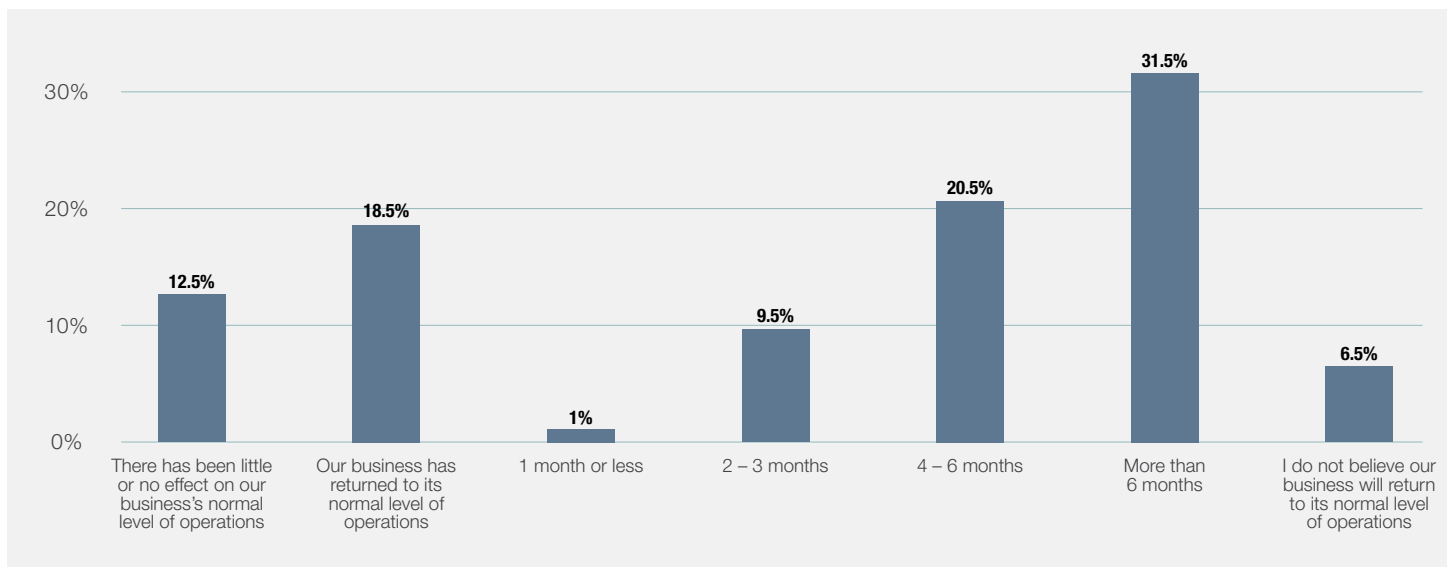


Figure 9: How Much Time Will Pass Before Normal Business Operations Return

Responses to the question “In your opinion, how much time do you think will pass before your business returns to its normal level of operations?” exhibited a roughly bimodal distribution, with two “peaks” forming at “Our business has returned to its normal level of operations” (18.5%) and “More than six months”

(31.5%). This bimodal distribution suggests sharp disparities in recovery expectations between businesses, which may prove troubling to policymakers hoping to get these businesses back to a normal operating status.

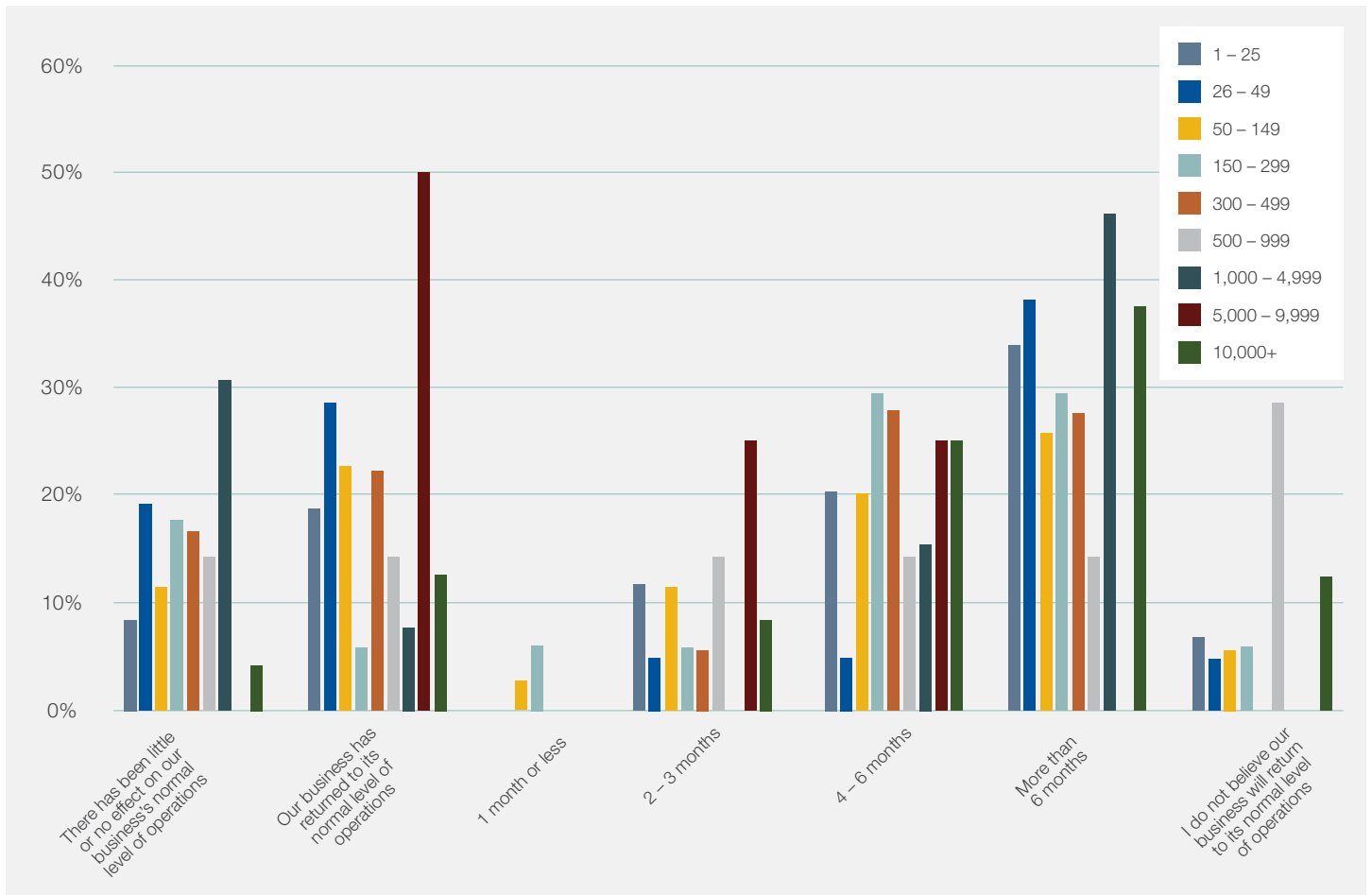


Figure 10: How Much Time Will Pass Before Normal Business Operations Return, by Size

A cross-tabulation of these values with business size revealed no significant relationship between size and the distribution of values. As Figure 10 shows, responses are generally distributed around the two modes described herein, regardless of the size of the responding firm. This lack of a relationship between business size as measured in the number of personnel and the expected

timeline for a return to a normal level of operations suggests that the disparity in recovery expectations is present across the entire defense industrial base. It is not localized to a specific subset based on business size, illustrating the necessity of further support across the DIB as the U.S. economy recovers.

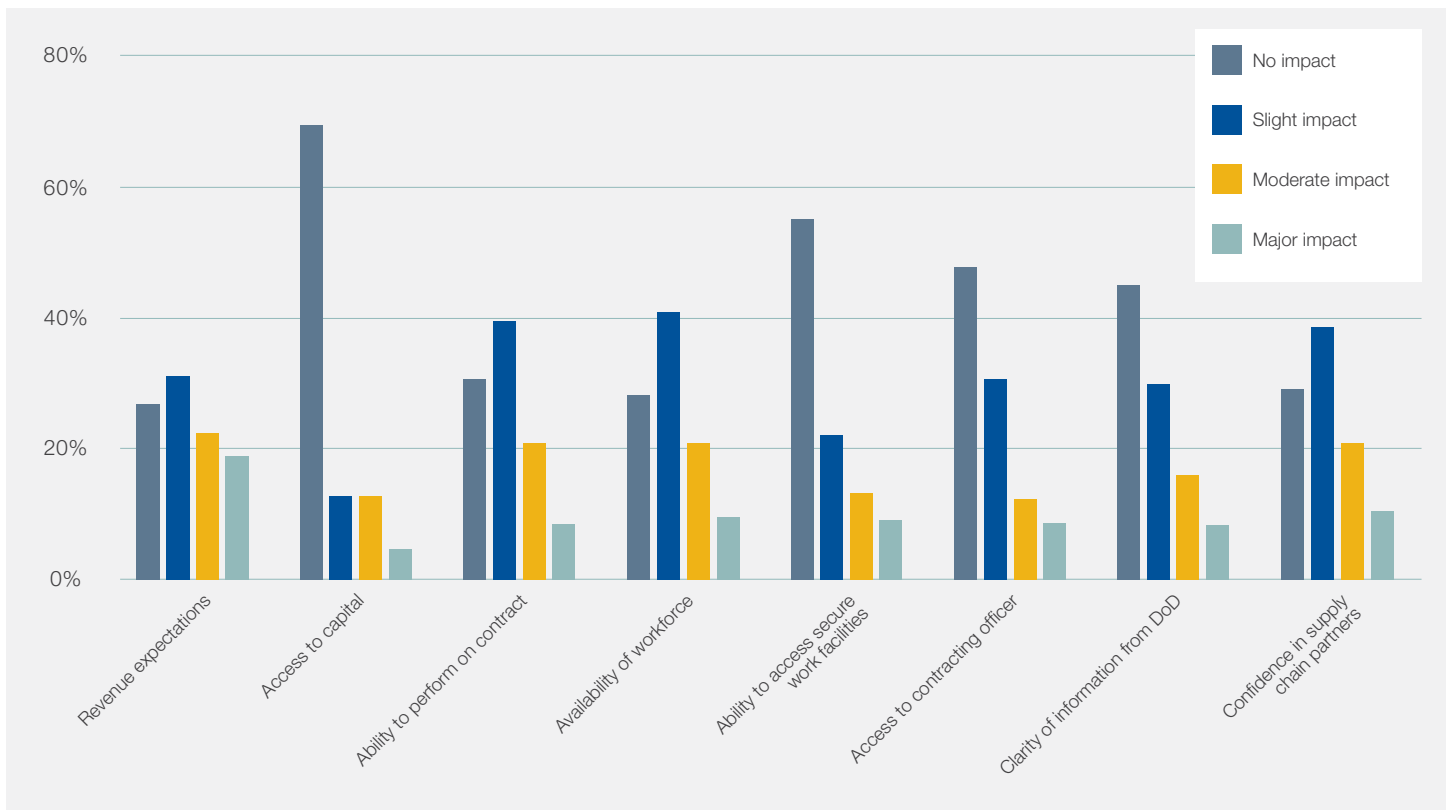


Figure 11: Percent of Respondents Experiencing a COVID-19 Impact to Selected Operations

The COVID-19 pandemic has significantly impacted business operations across the DIB in a variety of areas. Our survey sought to measure which operations were most impacted by the pandemic. The four areas of operations most affected by the COVID-19 crisis were revenue expectations (41.7%), confidence in supply chain partners (31.7%), availability of workforce

(30.5%), and ability to perform on contracts (29.6%). Due to the lack of facility access and other pandemic-related precautions, all four of these impacts go hand-in-hand. The DIB was least impacted by a loss of access to capital (17.6%), likely because valuable government programs provided much-needed loans, grants, and liquidity throughout the past year.

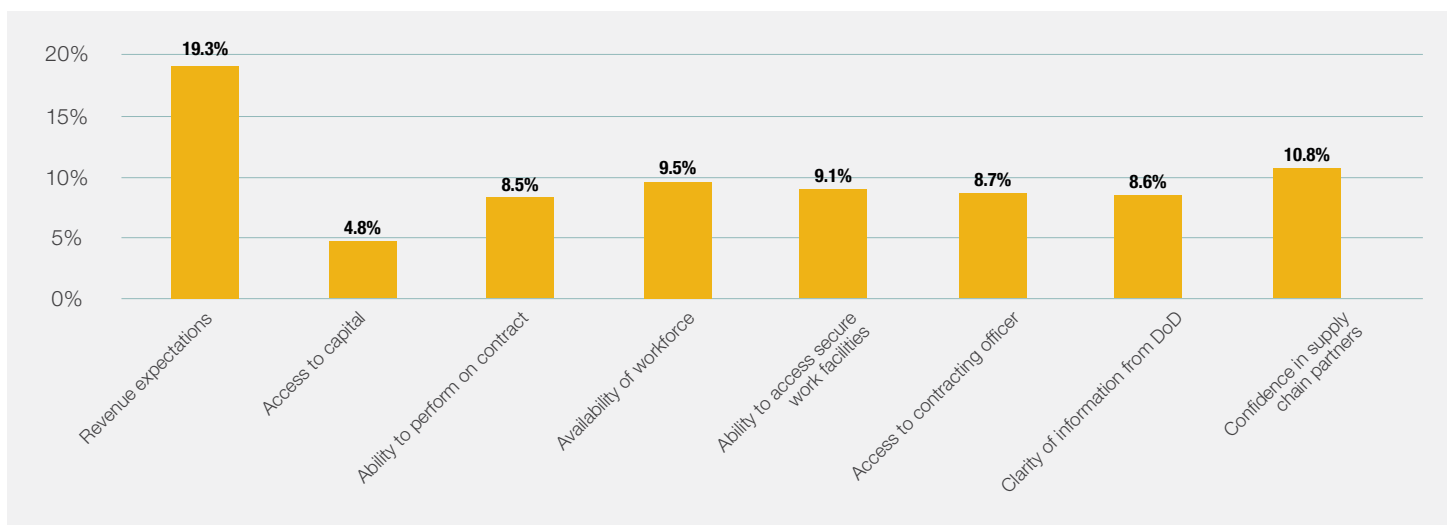


Figure 12: Percent of Respondents Experiencing a Major COVID-19 Impact to Selected Operations

Nearly one in five companies reported a major impact from COVID-19 on revenue expectations, which represents a high risk to operations for a staggering proportion of the DIB. Following revenue expectations, businesses reported major impacts in the highest proportions on their confidence in supply chain partners (10.8%), availability of workforce (9.5%), ability

to access secure work facilities (9.1%), and DoD accessibility and information (8.7% and 8.6%, respectively). While it is encouraging that the major impacts were not highly cited in more than a few categories, it remains important to note that at least some companies experienced a major impact to each of the categories measured.

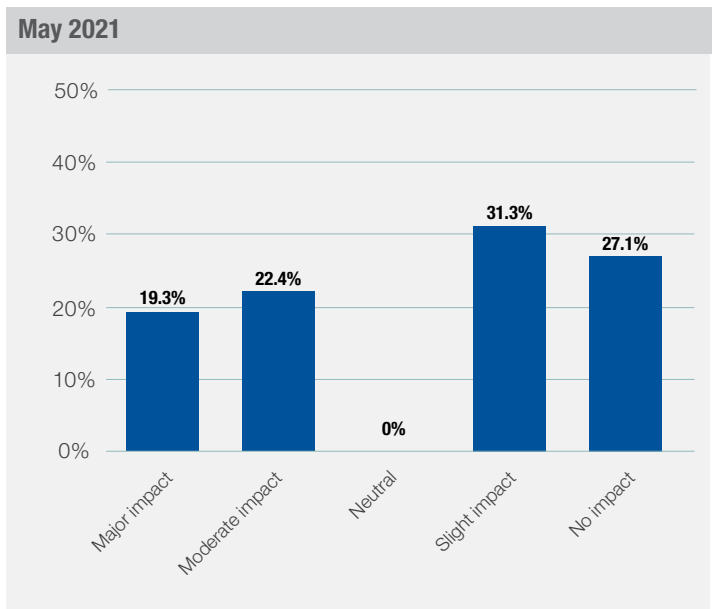
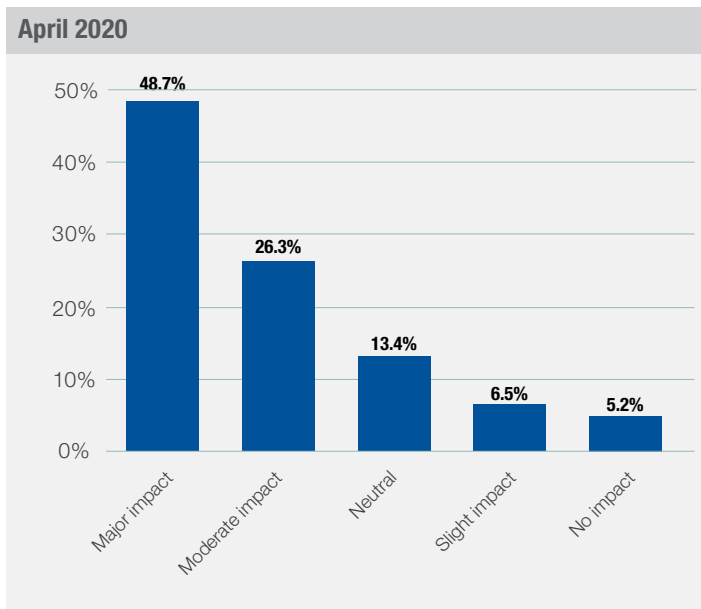


Figure 13: COVID-19 Impact to Revenue Expectations, April 2020 versus May 2021

The impact of COVID-19 on revenue has lessened significantly over the last 13 months. Over the same period, we have seen the share of major impacts on revenue expectations fall by more than 50%. Over one quarter of all businesses in the DIB now report no impact on revenue expectations while the number of businesses experiencing just a slight impact has increased by a factor of five. Businesses in the DIB have adapted and received valuable assistance and support. However, it appears as though the work is not yet done: 40% of companies surveyed reported a moderate or major impact, indicating that more support is required.

| Category of Response | April 2020 | May 2021 | % Difference |
|--|--|--|--------------|
| | Weighted Average Level of Impact (1 – No impact, 5 – Major impact) | Weighted Average Level of Impact (1 – No impact, 5 – Major impact) | |
| Revenue expectations | 4.1 | 2.8 | -32.2% |
| Access to capital | 3.3 | 1.7 | -48.3% |
| Ability to perform on contract | 3.3 | 2.4 | -28% |
| Availability of workforce | 3.2 | 2.4 | -24.6% |
| Ability to access secure work facilities | 3.2 | 2 | -37% |
| Access to contracting officer | 3 | 2 | -33.2% |
| Clarity of information from DoD | 3 | 2.1 | -30% |
| Confidence in supply chain partners | 2.9 | 2.5 | -16.4% |

Figure 14: Weighted Average Impacts of COVID-19 to Selected Operations, April 2020 versus May 2021

When comparing COVID-19's impacts on businesses between April 2020 and May 2021, we found a marked improvement over the last 13 months. Across all categories surveyed, the defense industrial base has made great strides towards reducing the impacts of the pandemic on operations. This resilience is likely due to a combination of adaptation, government assistance, and the lifting of local restrictions that have coincided with vaccination. The most substantial drops in impact are visible in the "access to capital" category, which experienced a 48% drop in impact, followed by "ability to access secure work facilities," "access to contracting officer," and "revenue expectations."

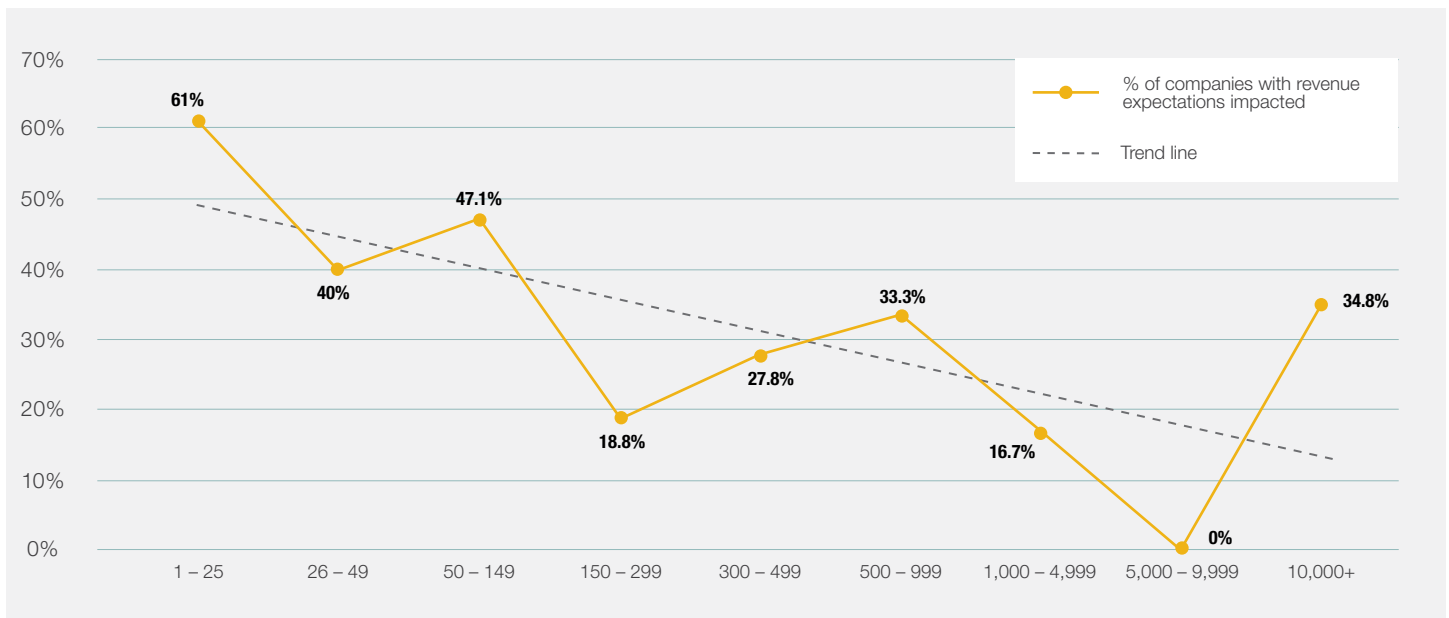


Figure 15: Percent of Respondents that Reported Major or Moderate Impacts to Revenue Expectations, by Size

It is important to look specifically at the impact of COVID-19 on revenue expectations as this factor has had the largest impact on the DIB in the last year. While virtually all businesses in the DIB have seen their revenue expectations impacted as a result of the COVID-19 crisis, small businesses have felt this impact most acutely. 61% of the smallest businesses (25 employees or fewer) experienced a moderate or major impact to revenue expectations, compared to approximately 35% of the largest corporations. The smallest businesses were just less than two times as likely as the largest businesses to experience a substantial impact to revenues, highlighting a need for more assistance to aid the DIB’s economic recovery from the COVID-19 crisis.

While improving, a significant portion of the defense industrial base is still experiencing impacts on their ability to perform on classified contracts due to the COVID-19 crisis. 39.5% respondents answered “Yes” when asked “Has your ability to perform on classified contracts been impacted by the COVID-19 crisis?” Conversely, 60.5% responded “No.” When compared to NDIA’s previous COVID-19 surveys conducted in April and July 2020, the portion experiencing impacts has steadily decreased from 88.5% in April 2020 to 70% in July 2020, finally dropping below 50% in May 2021. In other words, over the past year of the COVID-19 pandemic, the percent of respondents impacted by the crisis has decreased by 48%.

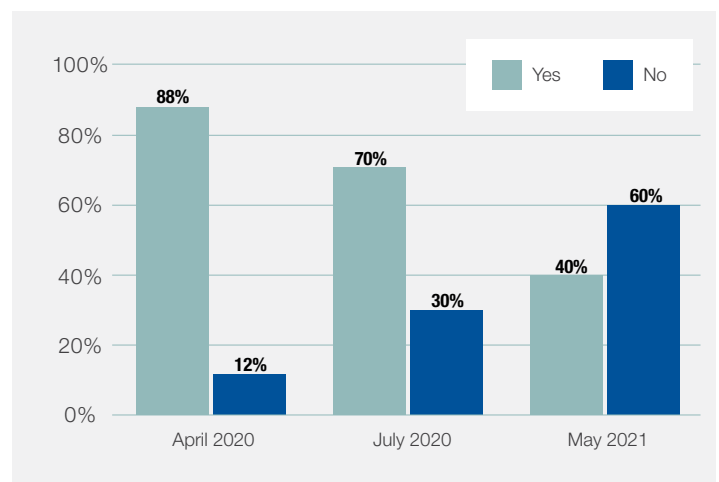


Figure 16: Percent of Respondents that Cited an Impact to Their Ability to Perform on Classified Contracts, Over Time

A year after our initial survey was conducted in April 2020, the number of companies in the defense industrial base experiencing disruptions in their cash flow as a result of the COVID-19 crisis has increased by 4%. When asked “Since January 1, 2021, if you have experienced disruptions in your cash flow as a result of the COVID-19 crisis, why?,” 64.7% of respondents indicated that they had experienced some form of cash flow disruption that could be tied to the COVID-19 crisis. In April 2020, 60.8% of respondents experienced cash flow disruptions; in July 2020, 70.7% responded “Yes” to the same question.

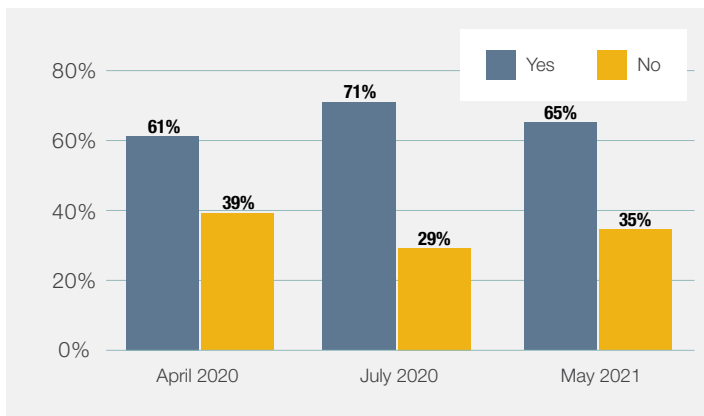


Figure 17: Percent of Respondents that Experienced Disruptions to Cash Flow, Over Time

These findings show that the effects of the COVID-19 crisis continue to disrupt the cash flow of companies in the DIB and, unlike other impacts of the crisis, have not eased with time.

When NDIA asked respondents why they had experienced issues with their cash flow, they cited supply chain disruptions as the leading cause (affecting 18.6% of the DIB). The next leading causes were increased overhead (14.5%), workforce issues or access to facilities (14.2%), and delayed payments from prime contractors (12.1%). As of May 2021, protective health measures are just beginning to be alleviated in the United States. As such, we hope to see the number of reported cash flow disruptions fall across the DIB in the coming months.

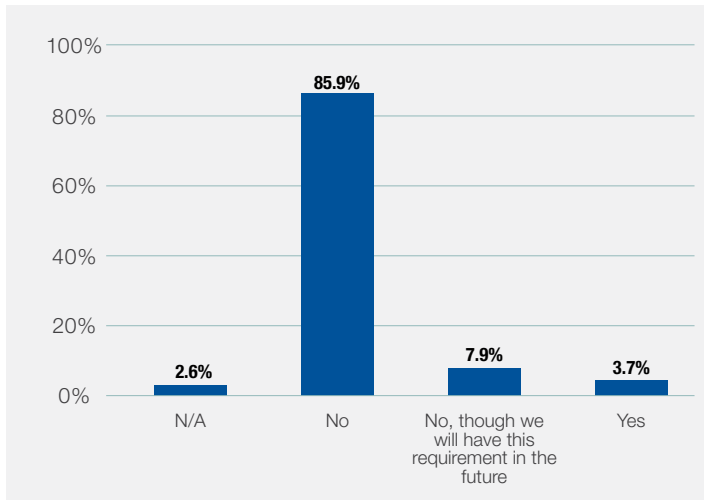


Figure 18: Percent of Respondents Requiring Vaccination Proof to Return to In-Person Work

An important question facing all businesses now is how to return to in-person work after over a year of remote work. One possibility is employers requiring vaccination to return to the workplace. When asked, “In the last week, did your business require employees to have proof of COVID-19 vaccination before physically coming to work?,” approximately 85% of respondents said their business would not require proof of a COVID-19 vaccination before allowing employees to return to in-person work. Slightly over 11% reported that proof of a COVID-19 vaccination is required or will be in the future.

While not close to a majority, this 11% is still a significant portion of employers and represents those that will require vaccination to return to in-person work. Notably, when this percentage is broken out by the size of the employer, no trend emerges, signifying that required proof of immunization is not concentrated at just the largest or smallest businesses. Rather, the 11% is spread throughout the DIB.

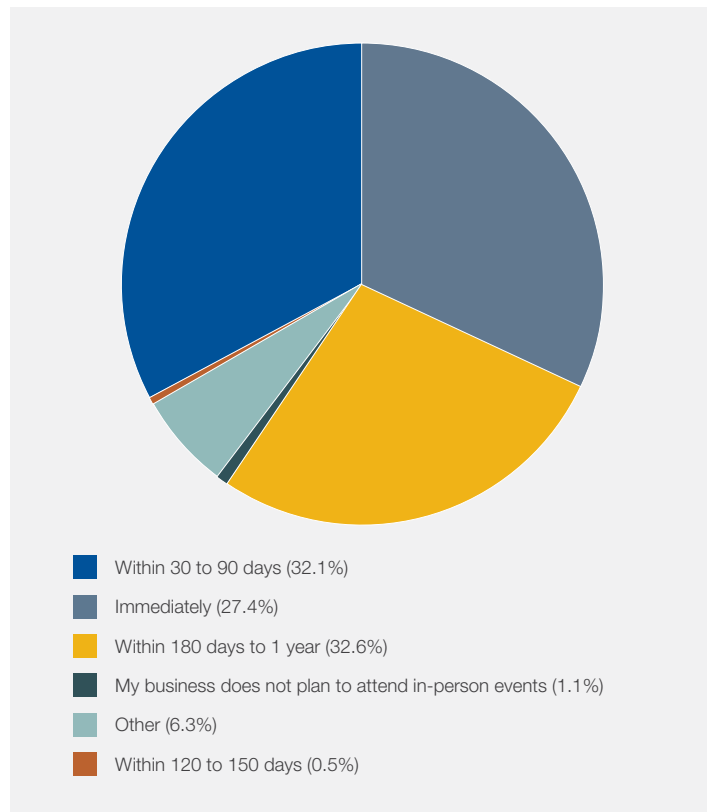


Figure 19: Timeline for Attending In-Person Events Again

The survey also asked, “When does your business plan on attending in-person events again?” In response, 27% said that they would immediately return to in-person events or were already attending them. Around 32% of respondents planned to begin attending events within the next 90 days, while a similar percentage thought it would take between six months and a year.

Interestingly, only 1% had no plans to return to in-person events. The “Other” category pictured in Figure 19 encompasses all the unsure responses. Some were waiting on approval from executives while others were waiting on CDC guidance. The “Other” category answers did not rule out in-person events but could not give a date for the plans; as such, they were treated separately from the “plans not to attend” answers.

The final question asked in the survey aimed at determining whether there were any success stories from the COVID-19 crisis to share. This question received many responses, from the ability to attend events due to their virtual nature to increased government help with Paycheck Protection Program (PPP) loans. However, the most common answer was the success of remote work. Almost 35% of responses to this question mentioned working from home as some form of a win. While some

responses mentioned increased savings on office space, others mentioned increases in worker productivity and satisfaction.

Respondents brought up two other interesting items in their responses to this question. 21% mentioned the resiliency of business and the ability to remain open during the crisis. Another 9% cited the government response, like PPP loans or increased communications with DoD, as a bright spot.

| Categorized Success Stories | Percent of Respondents |
|---|------------------------|
| Ability to attend events | 2.6% |
| The government response | 9.2% |
| Shifted and helped the community (PPE production, etc.) | 6.6% |
| No COVID-19 cases in our workplace | 2.6% |
| Stayed open through the hardships | 21.1% |
| Improved relations with business partners | 2.6% |
| Sales went up | 6.6% |
| Work from home | 34.2% |
| None | 14.5% |

Figure 20: Success Stories Experienced During the COVID-19 Crisis

These results are very similar to those from the April 2020 survey in which the ability to stay open and work from home were also cited as successes. The largest change was the percentage of respondents who mentioned increased communications; it was 21% of respondents last time but only 3% this time. Finally, the percentage of respondents saying there were no success stories has dropped from 27% in April 2020 to 14% in May 2021.

CONCLUSION

NDIA has a unique position as a convener of academia, industry, and government, and will continue to leverage this position to ensure the robustness of our national security. As always but especially at this point in the COVID-19 crisis, communication between industry and government is key. The results and recommendations discussed in this report should be carefully examined by officials and policymakers seeking to provide support and relief to our nation's small businesses. We look forward to continuing this dialogue.

In line with the recommendations contained within this report, it is likely that NDIA will conduct a follow-on survey at some time in the coming months to assess the ever-changing nature of the impacts of the COVID-19 crisis. More information about this follow-on survey will soon be made available.

This assessment is part of an ongoing effort by NDIA to understand the impact of COVID-19 on the defense industrial base. More information about NDIA's activity related to the COVID-19 crisis can be found at [NDIA.org/Coronavirus](https://ndia.org/Coronavirus).

VITAL SIGNS 2022

NDIA's next *Vital Signs* report is slated for release in early 2022. [Sign up](#) to ensure the direct delivery of the report to your inbox.

In the meantime, download our past reports and keep up with the contributing team's progress at [NDIA.org/VitalSigns](https://ndia.org/VitalSigns).