



COVID-19 Impacts on Vermont Farms and Food Businesses: Pivots, Needs and Opportunities for the Future

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Overview

This report highlights results from a survey of Vermont farm and food businesses conducted during August and September 2020, with a total of 223 respondents. The survey was distributed via a number of non-profit, business, and state agencies in Vermont. Respondents included farms, food and farm product retail, agritourism operators, on-farm food processors, food and beverage manufacturers, nurseries/greenhouses/garden centers, and food hubs/aggregators.

Key Findings

- The majority of respondents experienced a COVID-19 business impact, especially market (58%) and financial impacts (54%).
- The most common market impacts included a change in demand, change in market channels or closure of markets, and the majority of all business types and gross sales categories experienced market impacts.
- The primary financial impacts were a loss of sales, and the majority of all business types and gross sales categories experienced financial impacts.
- There was a significant shift from businesses identifying as financially “vulnerable” before COVID-19 (4.6%) to after COVID-19 (21.2%).
- Among the minority of businesses that reported an increase in sales, this was most common on farms, especially those that produced animal products. Sales gains were most common in either small or large businesses (18% of businesses grossing less than \$10K and 24% of businesses grossing over \$250K).
- More than 1 in 4 respondent businesses faced a health impact from COVID-19, and more than 1 in 5 faced a human resource impact.
- 2/3 of respondents made either a significant (23%) or moderate (44%) business change as a result of COVID-19, the most common being market, safety and distribution changes.
- The majority of respondents implementing new product, market or distribution changes intended to continue these changes for the next 1-2 years.
- While 96% of respondents agreed it was necessary to change their business as a response to COVID-19, more than 40% of respondents did not see opportunity for changes in the future, were not excited about the changes, and did not believe their business had the appropriate labor, finance or equipment to implement changes.
- Smaller grossing businesses and those classified as “financially vulnerable” were more likely to believe they didn’t have the appropriate equipment, infrastructure, technical assistance, finance, labor and skill sets to implement changes.

- 53% of respondents had business changes they wanted to make but couldn't, primarily because of a lack of financial resources (25%), inadequate equipment/infrastructure (15%), or personal challenges (15%). Further, respondents that were unable to accomplish business changes were significantly more likely to indicate they did not have the skills, finance, labor or equipment resources necessary.
- 60% of respondents that implemented changes saw opportunities for changes made in the future, though this depended on the types of business changes. Overall, the majority of respondents that eliminated products or made aggregation changes did NOT see opportunity in the future.
- The majority of respondents did not apply for COVID-19 programs or grants, but those who did apply for programs were significantly more likely to agree they had the financial resources necessary to make business changes.
- The greatest decrease in market outlets (as a percent of businesses participating) among respondents was international (60% decrease), restaurants (52% decrease), and farmers' markets (38% decrease in use).
- The greatest increase in markets was a 24% increase in website/e-commerce among respondents.
- The most helpful perceived strategies to recover from COVID-19 include additional financial resources (71% very helpful/helpful), market assistance for online/e-commerce shifts (55% very helpful/helpful), and help to apply for programs (54% very helpful/helpful).
- 60% of respondents indicated that COVID-19 was the most significant business challenge they ever experienced.
- In addition to business impacts, respondents indicated a number of personal and mental health impacts.
 - The majority of respondents indicated they had just enough or not enough money to make ends meet at the end of each month.
 - 20% of respondents were identified as at risk of food insecurity compared to 8.5% before COVID-19.
 - A majority of respondents demonstrated perceived stress at the time of the survey, but a much smaller amount (22%) of respondents indicated that mental health resources would be helpful or very helpful.
 - A majority of respondents who indicated they have trouble asking for help, also perceived mental health resources as unhelpful. These results suggest that there are opportunities to provide mental health resources to farm and food business owners and employees, especially in a way that doesn't require them to ask for help.

Background

COVID-19 has deeply affected food systems globally, including in Vermont. The initial impacts of COVID-19 on farming and food businesses were felt as social distancing and policy changes affected business operations, supply chains, and markets. This report describes the results from a survey of farm and food businesses in Vermont, conducted in August-September 2020. The survey was designed to understand several aspects of COVID-19 related to farm and food businesses: 1) The impact of the pandemic on businesses; 2) Changes implemented or desired as a result of COVID-19; 3) Additional anticipated changes that may result from COVID-19; and 4) Resources needed to implement necessary changes or recover from the pandemic. The survey was distributed via a suite of non-profit, business, and state agency listservs throughout Vermont, with a total of 223 respondents.

Respondent Types and Characteristics

The largest group of respondents were farms (50%), followed by food and farm product retailers (22%) and agritourism businesses (9%) (respondents could indicate multiple business types in their response). Farm sizes among respondents ranged from three acres to 600 acres. The majority of respondents (76%) indicated they were owners of the farm or food business, while 10% indicated they were a family member in the business, and 8% were managers. Less than 5% were employees or other roles. The number of paid employees (full or part-time) ranged from zero (35%) to 12% with one paid employee, 16% with two paid employees, 8% with three paid employees, and 29% with four or more paid employees (ranging up to 170 paid employees). Gross sales among business types ranged from 24% grossing less than \$10K, 24% grossing \$10--\$49K, 22% grossing \$50-\$150K, 8% grossing \$150-\$250K, and 22% grossing over \$250K annually.

Respondent Types



Figure 1. Respondent business types (percentage of respondents and total number of respondents).

COVID-19 Farm and Food Business Impacts and Timing

The majority of respondents experienced some type of COVID-19 impact. The majority reported a market or financial impact, with about one in four experiencing a health impact, and one in five experiencing a human resource impact (Figure 2).

COVID-19 Impacts on Farm and Food Businesses



Figure 2. Percent of respondent businesses that experienced different types of COVID-19 impacts.

The most common market impacts (Figure 3) were a change in consumer demand, market channels, or market closures. The majority of all business types and gross sales categories experienced a market impact, ranging from 60% of manufacturers to 76% of farm processing businesses, and from 64% of businesses grossing \$150-\$250K to 85% of businesses grossing \$10-\$49K. Among those indicating a disruption in access to raw materials or packaging (34% of market impacts), the most common disruption was a change in access to seed supply, or a change in other raw materials (38% each), followed by a change in infrastructure or equipment necessary

for packaging or labeling. Among those indicating a change in distribution channels (33% of market impacts), delay in product pickup/delivery (37%) was most common. Disruption impacts were most common among farm processors and nurseries (33% and 31% respectively), and among businesses grossing \$50-\$150K (39%). Distribution impacts were most common among agritourism businesses (40%) and businesses grossing between \$10-\$49K (38%).

Specific Market Impacts

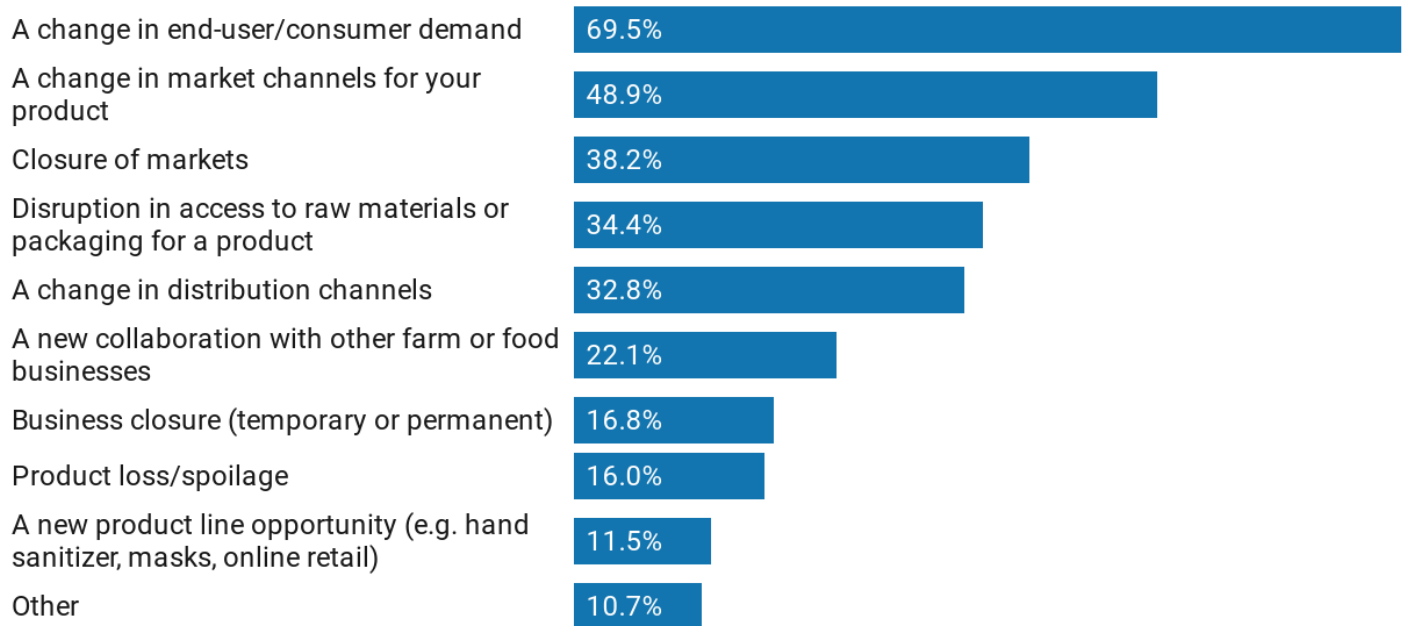


Figure 3. The specific types of market changes experienced among respondents indicating a financial impact (58%).

“Our expenses may increase significantly with the slaughterhouse bottlenecks and the dropping of small Vermont farmer accounts. We are still waiting to see if we can get access to our slaughterhouse for 2021.”

- Vermont Farm/Food Business Respondent

Financial impacts were prevalent among respondents, who indicated their business financial status before and after COVID-19 (Figure 4). The most notable shifts in financial businesses were from those classified as “vulnerable”, which shifted from 4.6% before COVID-19 to 21.2% of businesses after COVID-19. There was also a reduction in the number of businesses classified as “economically thriving” before COVID-19 (13.2%) to after COVID-19 (7.3%), and from “economically viable” before COVID-19 (29.1%) to after COVID-19 (24.5%).

“Our business costs have increased by 97% over last year at this time”

- Vermont Farm/Food Business Respondent

Impact of COVID-19 on the Financial Status of Farm and Food Businesses

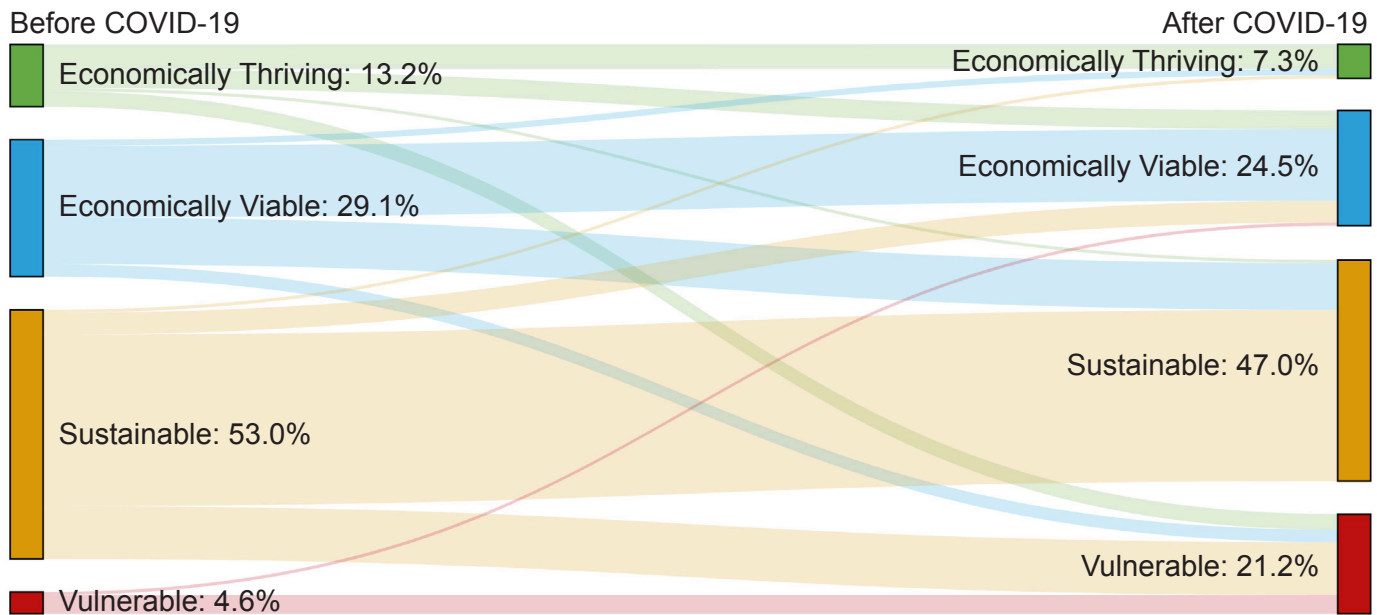


Figure 4. Percent of businesses who classified themselves in different financial categories before and since COVID-19. Visual credit: Samuel F. Rosenblatt

Two-thirds of all financial impacts were related to a loss of sales (Figure 5). A little over 20% of financial impacts were increased financing through financial assistance or an increase in sales. About 18% of financial impacts were related to a loss of financial assistance. The majority of all business types and gross sales categories experienced a financial impact, ranging from 57% of farm processors to 75% of food hub businesses. The proportion of businesses that reported a financial impact ranged from 55% of those grossing under \$10K to 93% of those grossing \$150-250K.

Lost sales was most prevalent among agritourism businesses (52%) and manufacturers (50%). Lost sales among gross sales types ranged from 20% of businesses grossing under \$10K reporting sales losses, to 71% of businesses grossing \$150-\$250K reporting losses. Among those that reported an increase in sales, this was most common on farms, and all farms that had increased sales produced at least some animal products (beef, poultry, eggs, etc.) Sales gains were most common among smaller gross sales businesses (17.5% under \$10K) and larger gross sales businesses (24.3% over \$250K), while they were minimal among businesses grossing \$10-\$49K (2.5%).

DEFINITIONS OF FINANCIAL CATEGORIES

Economically Thriving: The business exceeds minimum fair labor and wage standards for all owners and employees, provides benefits (e.g. health insurance), covers all costs, and generates a profit.

Economically Viable: This business has the capacity to pay family labor at the average agricultural wage, cover all costs, and generate a profit.

Sustainable: This business does not meet the “economically viable” definition (above) but it is sustainable due to the presence of built-up equity in savings, property, and owned assets, or the presence of other non-farm/food business income.

Vulnerable: This business is not economically viable and does not have sufficient sources of other income or built-up equity.

Specific Financial Impacts

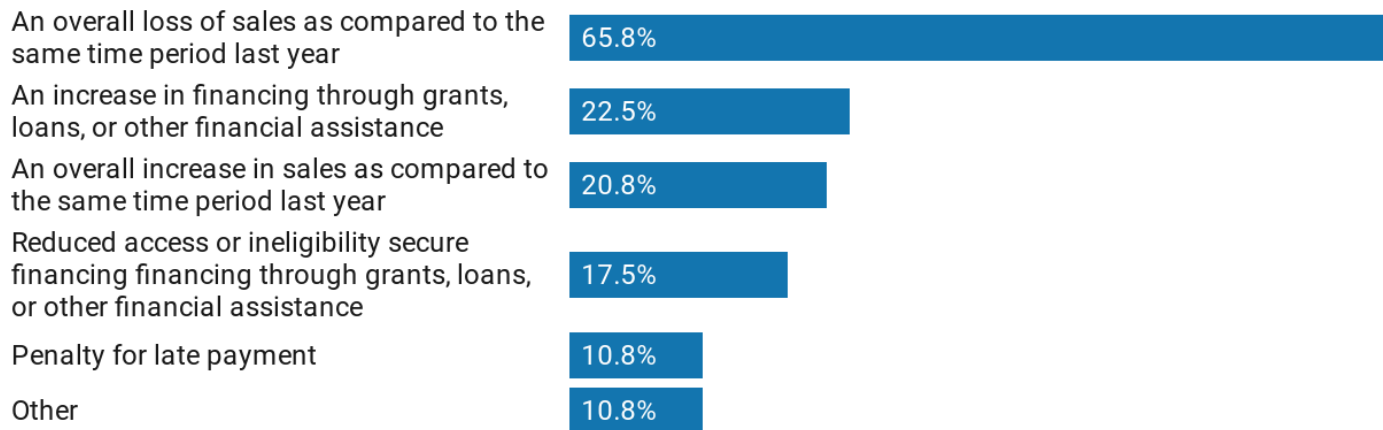


Figure 5. The specific types of financial impacts experienced among respondents indicating a financial impact (54%).

Health/well-being impacts were most common among food hubs (50%) and farm and food retail businesses (31%), while they affected a range of gross business types ranging from 25% of businesses grossing \$50-\$150K to 41% of businesses grossing over \$250K. Finally, human resource impacts were most prevalent in food hubs (75%) and farm processors (38%), and were least common in businesses grossing under \$10K (13%), while the majority of businesses (62%) grossing over \$250K experienced human resource impacts. The most common human resource impacts were respondents working more hours, a shortage of health and safety supplies and a reduction in the hours of existing employees (Figure 6). Among respondents that indicated they had to reduce employee hours, furlough, or fire employees, 58% of these actions occurred in businesses grossing more than \$250K annually.

Specific Human Resource Impacts

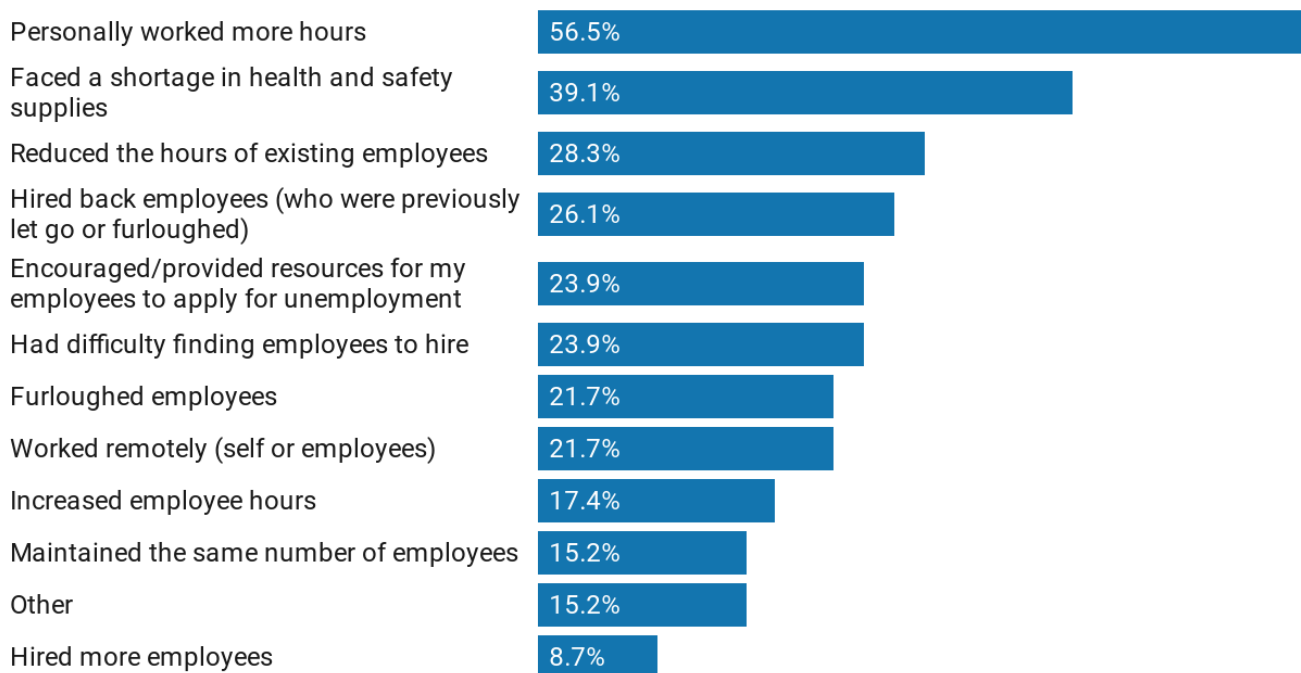


Figure 6. The specific types of human resource impacts experienced among respondents indicating a financial impact (21%).

“The pool of folks who are interested in seasonal agricultural work seems to have overlap with that of people whose living situations are not set up to maintain a low-risk/low-contact lifestyle (have other jobs and responsibilities that involve social contact, live with multi-age family, have dynamic housing situations...) we have been chronically understaffed this season...”

- Vermont Farm/Food Business Respondent

Respondents shared their thoughts on the timing of business impacts and post-COVID-19 time periods (Figure 7). The majority of respondents (52%) believed that a “crisis/reaction period” to COVID-19 had already occurred in August/September 2020. Approximately 29-33% of respondents indicated that a “recovery period” or “new normal” was either happening at the time of the survey (August/September 2020), or would happen in 6-12 months. Conversely, 54% did not believe their business would “return to normal” for 1-2 years.

54% of respondents did not believe their business would “return to normal” for 1-2 years.

Timing of Business Impacts

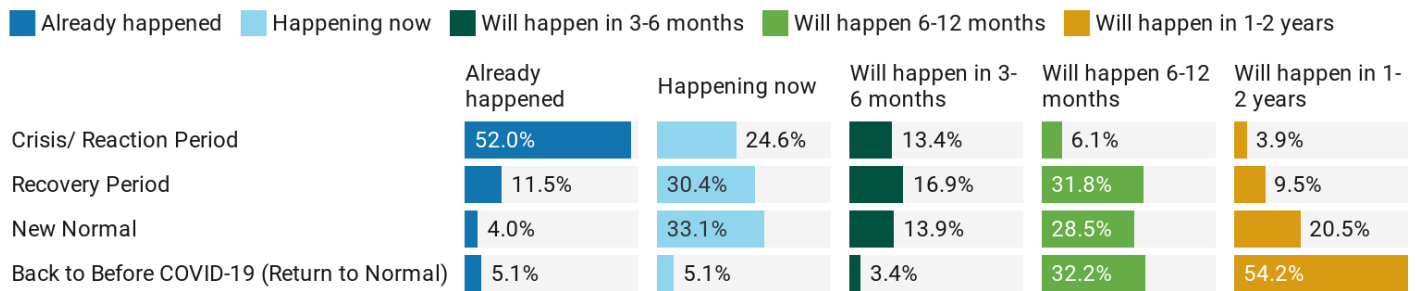


Figure 7. Respondent perspectives on business impact timing and when they expected to experienced various stages of COVID-19 impacts and recovery. Percentages add up within a period (e.g. Crisis/Reaction Period) across timescales.

COVID-19 Goals and Changes Made

Among respondents, the majority indicated their top goals for their business during the COVID-19 pandemic included maintaining or increasing sales (54%) and retaining markets (52%) while minimizing costs and COVID-19 transmission in their business was a goal among just under half of respondents (46% each). When asked about the extent of business changes made since the onset of the pandemic, two-thirds made a significant (23%) or moderate (44%) change, while 26% made minimum changes and 7% of respondents made no changes. The majority of farm processors (71%), agritourism businesses (68%), farm and food retailers (65%), and nurseries (54%) implemented major changes (defined as a significant or moderate change), while 50% of food manufacturers and 49% of farms implemented major changes. Among all gross sales categories, the majority of respondents implemented a major change (i.e. implementation of a major

“Sales are up, but inventory is flat out. We cannot sustain 50% increase in sales.”

- Vermont Farm/Food Business Respondent

“COVID-19 has slowed down the response rate and availability of many of our supplies, even things like seeds. Everything has been disrupted and stood on its head.”

- Vermont Farm/Food Business Respondent

change did not largely vary by sales type). Among all changes made, the most common were market, safety, and distribution changes (Figure 8).

Type of Changes Implemented During COVID-19

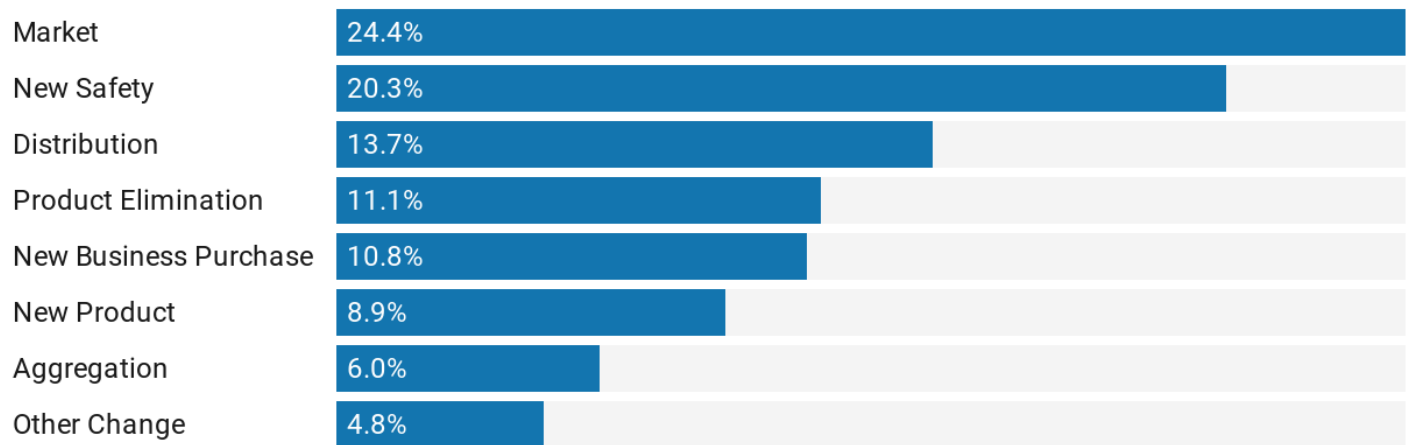


Figure 8. Types of changes implemented during COVID-19 among respondents.

Among the changes implemented, there were varying time frames during which respondents indicated they would continue these changes. The majority of respondents that reported launching new products or implementing market and/or distribution changes intended to continue these changes for 1-2 years (Figure 9).

Timeframe for Continuing COVID-19 Changes

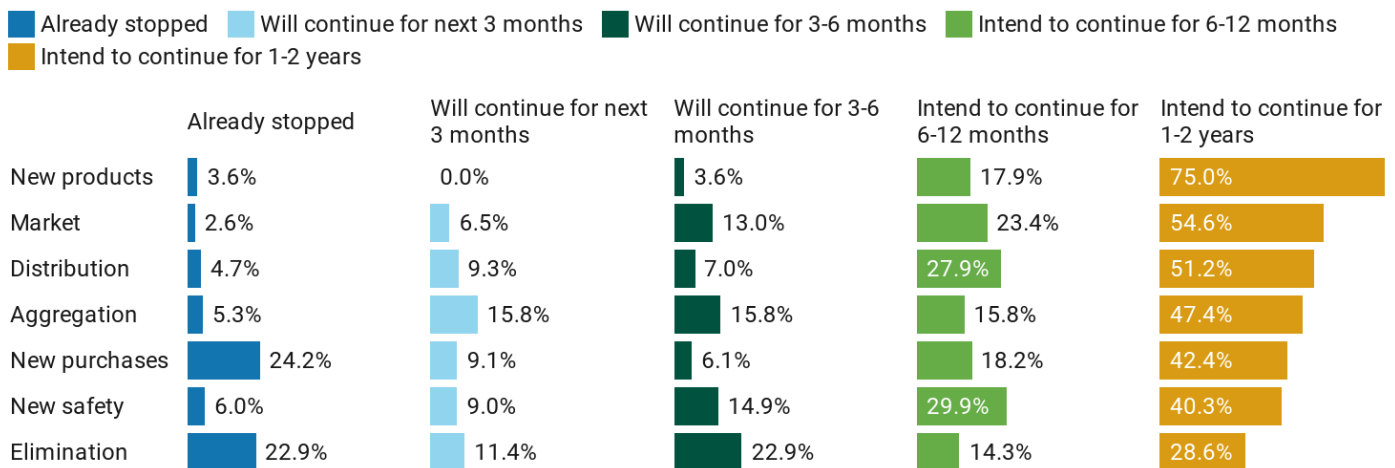


Figure 9. The timeframes during which respondents intended to continue different business changes implemented since COVID-19.

In asking respondents about their perceptions of changes made, 96% agreed that it was necessary to change their business to respond to COVID-19; however, the capacity of businesses to change varied (Figure 10). As well, more than 40% of respondents did not see opportunity in the future with the changes made, were not excited about the changes, and did not think that their business had the appropriate labor, finance, or equipment to implement changes.

Perceptions About COVID-19 Business Changes

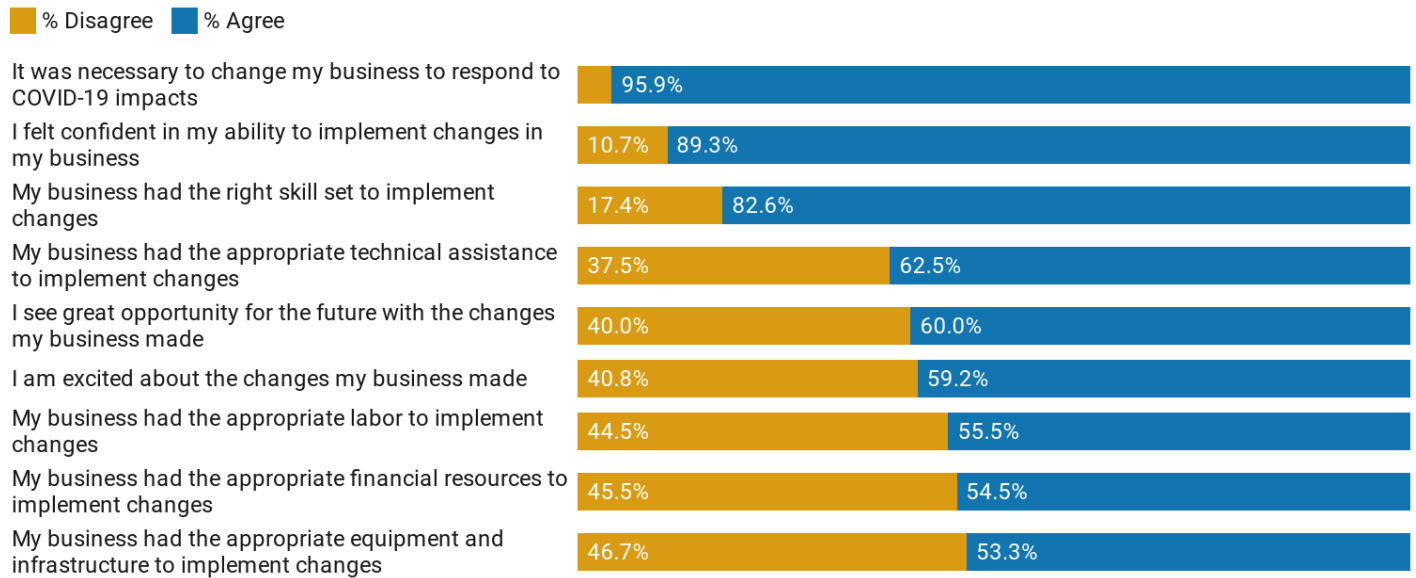


Figure 10. Respondent perceptions about business changes.

Examining resource perceptions by gross sales demonstrates that smaller grossing businesses were more likely to disagree they had the appropriate equipment, infrastructure, technical assistance, finance, labor, and skill set resources necessary to implement changes (Figure 11).

Percent of Business Types By Gross Sales that Disagreed They Had Business Capacities To Respond To COVID-19

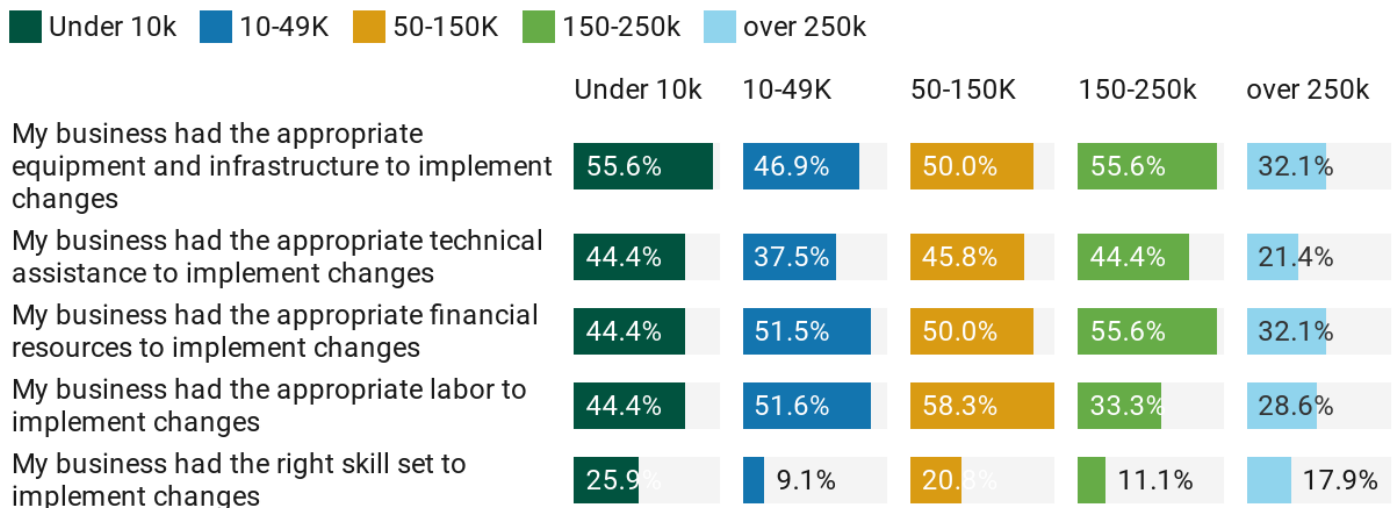


Figure 11. Percent of businesses by gross sales category that disagreed with these statements.

Among respondents, 53% indicated that they had changes they wanted to make but couldn't. Most commonly, changes weren't made because of a lack of financial resources, inadequate equipment/infrastructure or personal challenges (Figure 12). Qualitative analysis suggests the most common changes people wanted to make, but didn't, were expanding production, marketing and sales expansion, and infrastructure expansion. Specifically, many respondents indicated a desire to do online marketing, create online stores, accept orders online, or find new markets in a number of areas. Infrastructure expansions included upgrades (e.g. greenhouses, walk-in coolers, farm stands), but also production line upgrades (e.g. packaging, commercial kitchens, automation of manufacturing).

Among respondents, 53% indicated that they had changes they wanted to make but couldn't.

Businesses classified as "vulnerable" since COVID-19 were significantly more likely to disagree they had the technical assistance, finance, labor, or equipment necessary for changes.

"Much of the delay of getting our business structures built are due to COVID-19's impact on people with resources having the time to spend on projects. Besides our building, the cost of every piece of equipment or supplies has gone up since April by at least 10%. There are lumber and other building material shortages due to businesses closing in this country and others. Some supplies are not available at all because they come from other countries."

- Vermont Farm/Food Business Respondent

Reasons Business Changes Were Not Made

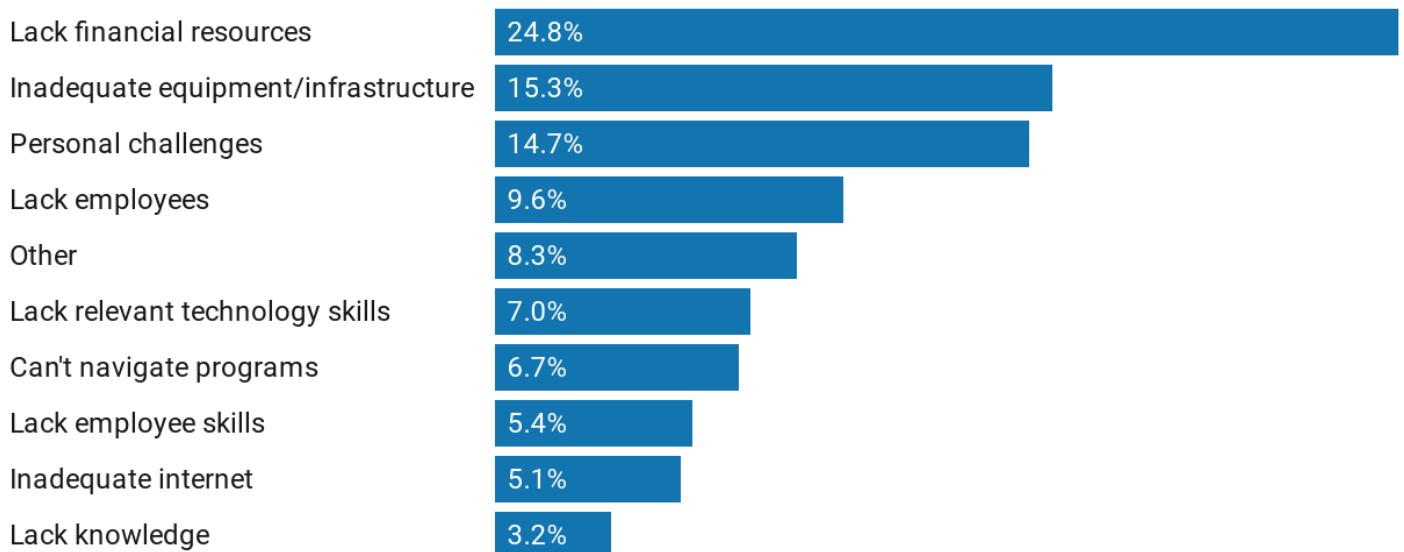


Figure 12. Reasons respondents did not implement business changes during the COVID-19 pandemic.

Among those 53% of respondents that couldn't make changes, we found significant relationships between these unaccomplished changes and respondent agreement with resource availability. Specifically, respondents that disagreed they had the skill set, finance, labor or equipment resources to make changes were significantly more likely to have not accomplished business changes ($p < 0.05$) (Figure 13). Furthermore, we found that businesses

classified as “vulnerable” since COVID-19 were significantly more likely to disagree they had the technical assistance, finance, labor, or equipment necessary for changes ($p < 0.05$). This suggests that with additional access to technical assistance to build skill sets, labor, finance, and equipment, more businesses would be better positioned to respond to COVID-19 or other similar changes in the future.

Percent of Respondents Unable To Accomplish Business Changes

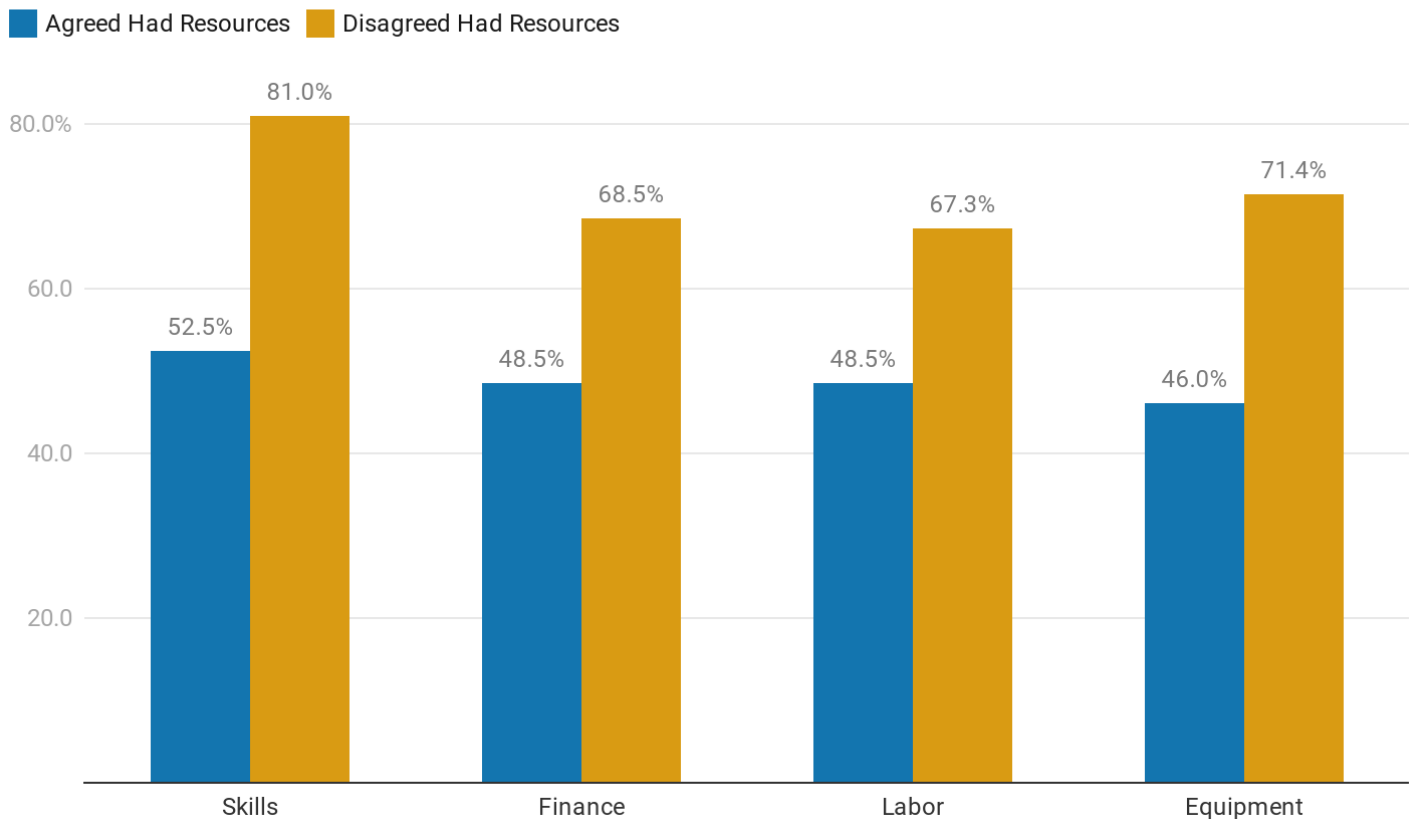


Figure 13. Respondents who (dis)agreed they had relevant resources to make business changes.

Opportunities with Change?

While 60% of respondents agreed they saw opportunities with the changes they made, this varied by business type and the types of changes implemented (Figure 14). For example, the majority of respondents that implemented changes involving the elimination of a product or product aggregation did not agree that there was an opportunity for these changes in the future. Conversely, around 1/3 of respondents that purchased new equipment or offered new products saw an opportunity for these changes in the future. Furthermore, more than 2/3 of businesses grossing less than \$10K or grossing over \$250K agreed that changes they made provided future opportunities, but this perception was less likely among middle grossing businesses (e.g. 44% agreement with \$150-\$250K). Among business types, agreement that changes present new opportunities was most common among agritourism businesses (68%), food hubs (67%), and manufacturers (64%), and least common among nurseries (33%).

“Since COVID-19, other local producers that had lost markets were willing to sell their products and produce at our farm store. At the same time more consumers started shopping here as they found it to be safer than shopping at a grocery store.”

- Vermont Farm/Food Business Respondent

Opportunity Perceptions By Business Change Type

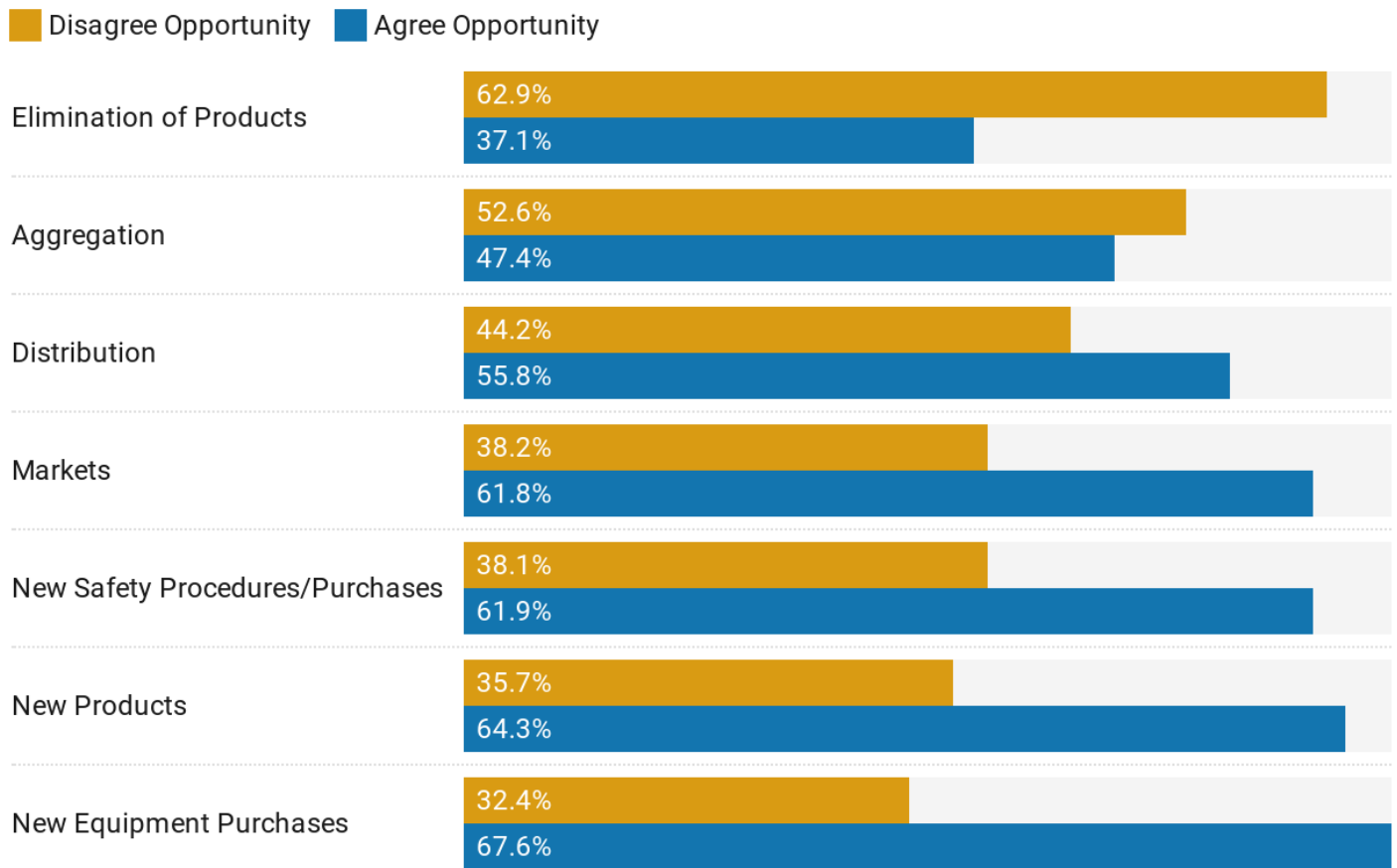


Figure 14. Percent of respondents that implemented business changes and whether they saw future opportunity for them.

Use of Policies and Programs

Larger grossing businesses (over \$150K) were more likely to apply for the Coronavirus Food Assistance Program (CFAP), EIDL, PPP, and VAAFMM programs, while smaller businesses (Under \$150K) were more likely to apply for unemployment and Vermont Farm and Forest advising services. However, the majority of respondents did not apply for support through available COVID-19 policies and programs at the time of the survey (Figure 15). Applications varied by business type and gross sales. At the time of the survey, fewer than one-third of farms had applied for any programs, while more than half of manufacturers had applied for an Emergency Injury Disaster Loan (EIDL), the Paycheck Protection Plan (PPP), unemployment, or a Vermont Agency of Agriculture, Food and Marketing (VAAFMM) COVID Relief grant.

“Most of the grant money available requires that I have employees. As I cannot afford to employ workers, I cannot get grants to change this problem!”

- Vermont Farm/Food Business Respondent

Use of Policies and Programs since COVID-19

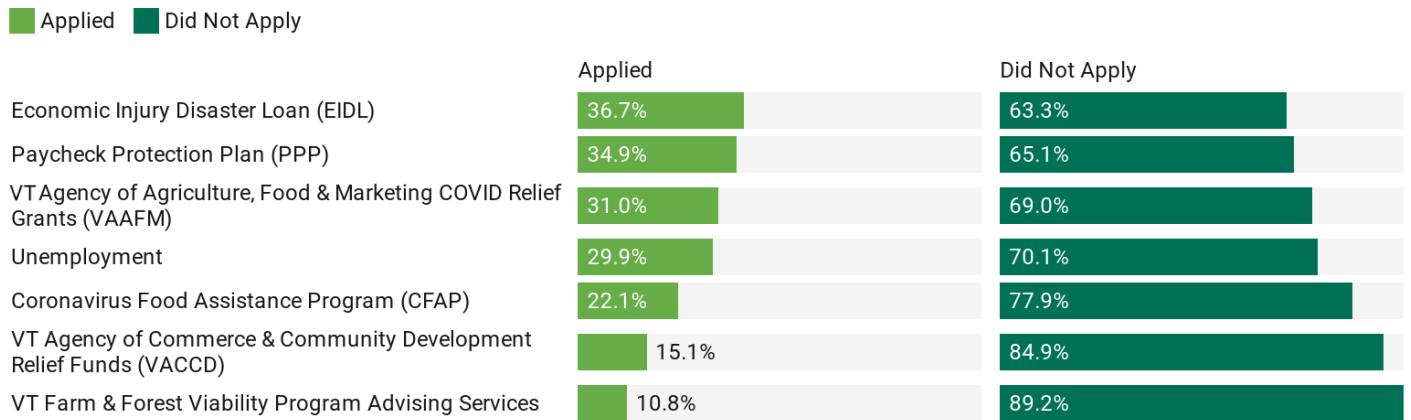


Figure 15. Percent of respondents that applied or did not apply to relevant COVID-19 policies.

The majority of respondents who applied for programs were significantly more likely ($p < 0.05$) to agree that they had the financial resources necessary to make business changes, with the exception of respondents that applied for the PPP (Figure 16). As compared to non-applicants, respondents that applied for programs were also significantly more likely to perceive additional financial resources as helpful in the future. Taken together, this suggests that program participation provided the financial resources necessary to implement business changes for many respondents, and would continue to be useful in the future.

Financial Resource Perceptions Among Program Participants

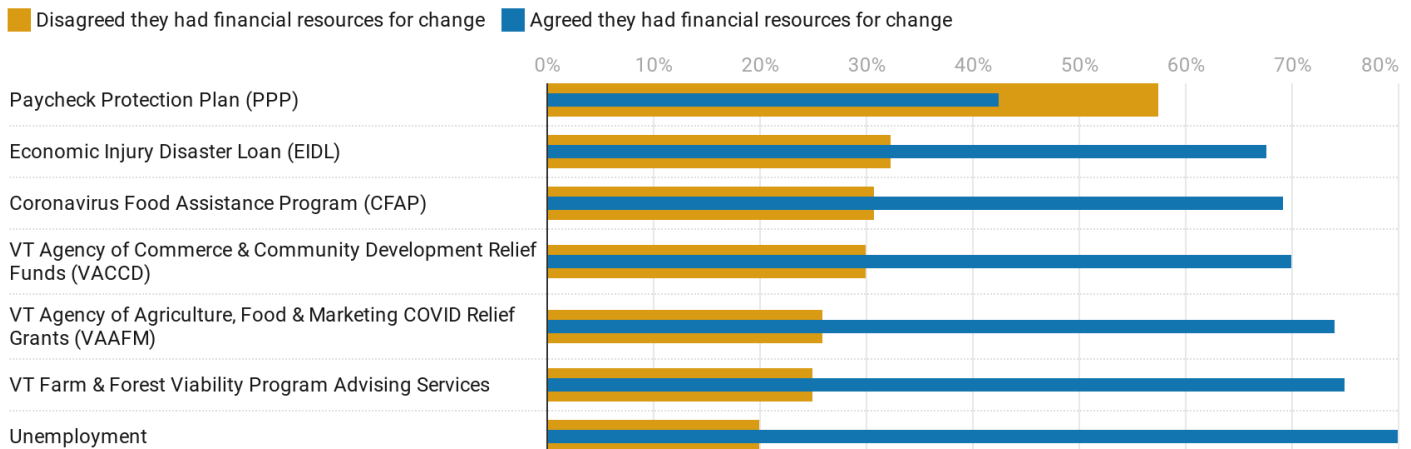


Figure 16. Percent of respondents that participated in different programs and policies that agreed or disagreed they had the financial resources for business change during COVID-19.

Future Market Shifts and Technical Assistance

Some respondents reported that market outlets had changed since the beginning of the pandemic, and also indicated their interest in future potential markets (Figure 17). Specifically, the most notable decreases in market outlets among respondents were international (60% decrease), restaurants (52% decrease), and farmers' markets (38% decrease in use). Conversely, there was a 24% increase among respondents using websites or e-commerce since the beginning of the pandemic, as compared to before the COVID-19 pandemic. All of these respondents also indicated their interest in maintaining these markets in the future (24% increase). Among respondents indicating their intended future markets, many noted future market intentions that were new since the beginning of the pandemic or would be new after the pandemic. The largest absolute increase in future market intentions was among web/e-commerce.

"I have heard a lot of direct market growers/ producers asking 'how long will this last?' - and I think that none of us really know, so it's hard to consider particular investments if demand for local food recedes again."

- Vermont Farm/Food Business Respondent

There was a 24% increase among respondents using websites or e-commerce since the beginning of the pandemic, as compared to before the COVID-19 pandemic.

Recent and Predicted Shifts in Markets

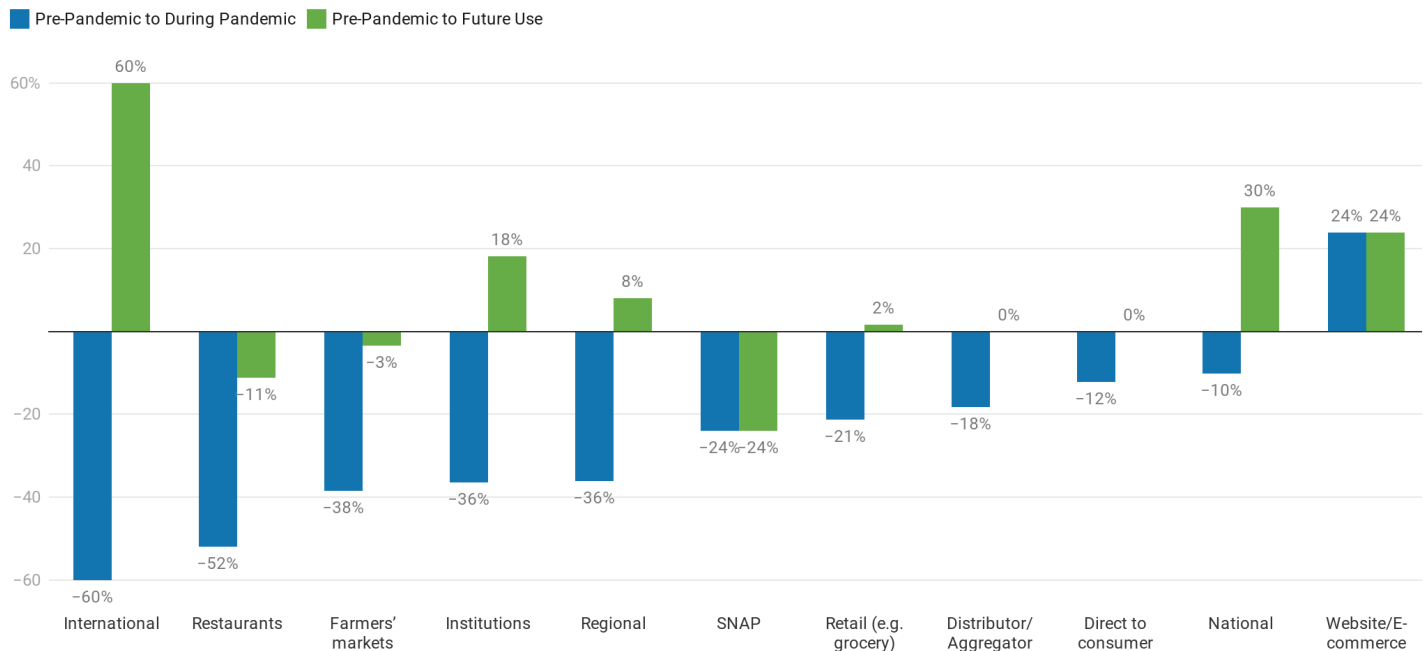


Figure 17. Change since COVID-19 and anticipated change in market outlets among respondents. Blue bars indicate the change in a specific market outlet among respondents that used it before and since COVID-19. Green bars indicate the desired market outlets among respondents in the future, as compared to before COVID-19.

Respondents indicated a number of strategies that would be helpful for their businesses to recover from COVID-19 and evolve (Figure 18). The most helpful perceived strategies included additional financial resources (71% very helpful/helpful), market assistance for online/e-commerce shifts (55% very helpful/helpful), and

help to apply for programs (54% very helpful/helpful). Mental health resources and health and safety training were perceived as least helpful. The most preferred ways to receive technical assistance by respondents was email, online through webinars or trainings, online through videos, and in-person.

Perceived Helpful Strategies

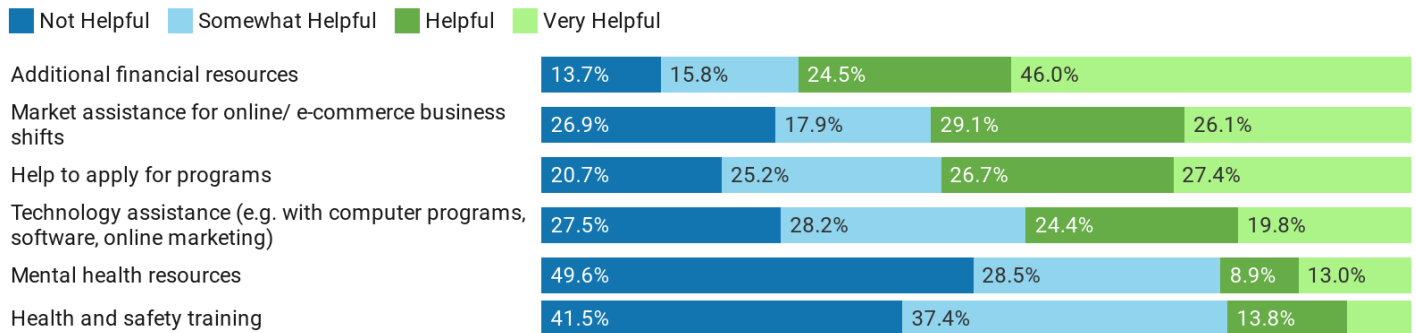


Figure 18. Respondent perceptions of helpful strategies to recover from COVID-19 business impacts.

Finally, respondents provided additional insight that may be important when delivering technical assistance or designing programs and policies (Figure 19). The majority (94%) of respondents agreed that they valued their personal independence and most respondents indicated confidence in their business for the next two years (91%), with no plans of selling (89%). The majority of respondents also stated that COVID-19 was the most significant business challenge they ever faced. Importantly, the majority of respondents (57%) also indicated that they have trouble asking for help.

Personal and Business Perspectives

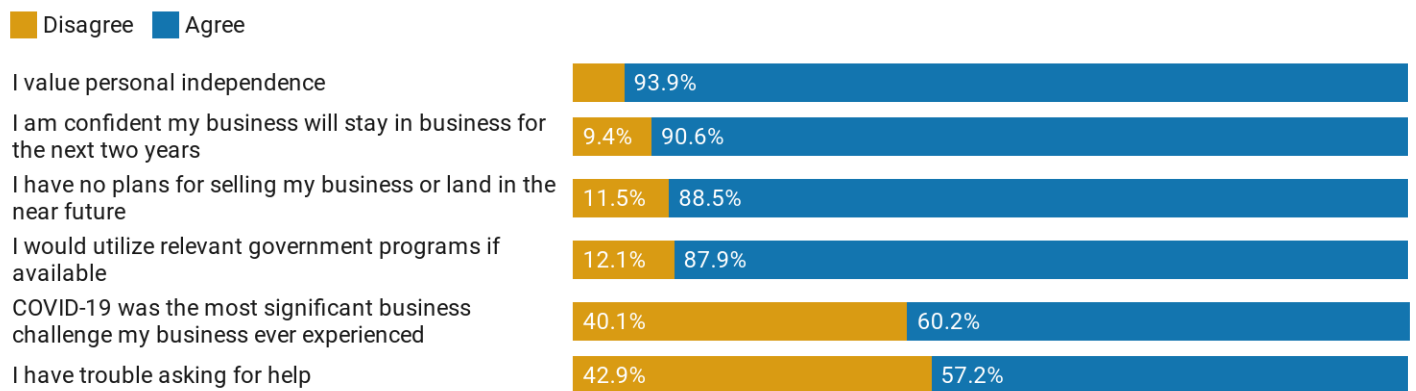


Figure 19. Respondent perspectives on personal and business issues that may be relevant to delivering technical and financial assistance.

“The outbreak demonstrated that even though we have been ‘doing okay’ in our household and in our business for the past few years, we don’t have much capacity to handle additional loads, even for short periods. It would have been helpful to have additional resources to help us at the pinch points and those resources may, in fact, have been out there but we didn’t have the ‘extra’ we would have needed to seek them out and navigate them.”

- Vermont Farm/Food Business Respondent

Personal and Mental Health Impacts

In addition to business impacts, many respondents indicated personal challenges since the start of the pandemic or screened positive for mental health challenges. Most common other challenges faced by respondents included homeschooling children previously in school, loss of income outside the farm/food business, and lack of childcare. When asked how difficult it was to pay for basics like food, housing, medical care, and heating, 25% of respondents indicated it was at least somewhat hard, while 7% indicated it was hard and 5% indicated it was very hard. Furthermore, when asked about the amount of money in the household at the end of the month since the start of the pandemic, the majority of respondents (51%) indicated they had just enough or not enough money to make ends meet (Figure 20). Furthermore, risk of food insecurity was identified in 8.5% of respondents prior to the COVID-19 pandemic and 20.2% of respondents since the pandemic began, representing a 138% increase.

“In general, there is a high level of stress and pressure on farm business owners trying to maintain a financially viable operation under extremely tight margins and extremely long work days. That became even more compounded when we all were forced to navigate new pandemic related challenges, such as opening online stores, pivoting back to CSA models, or advocating against the closure of farmers markets... This year, employers and employees are still wrestling with pandemic trauma, and my perspective is that my crew and I are far more tired now because of that compounding factor, and some staff are ending their season early.”

- Vermont Farm/Food Business Respondent

Amount of Money At The End Of The Month Since COVID-19



Figure 20. Percent of respondents indicating the amount of money they usually have left at the end of the month since COVID-19.

Using a set of four questions related to stress, perceived mental health, and stress impacts were measured (Figure 21). More than 2/3 of respondents sometimes, fairly or very often felt unable to control important things in their life in the last month, while the majority (56%) felt sometimes, fairly or very often that difficulties were piling up and couldn't be overcome.

Respondents indicated perceived stress in several ways. More than 2/3 of respondents sometimes, fairly or very often felt unable to control important things in their life in the last month

Perceived Stress Impacts

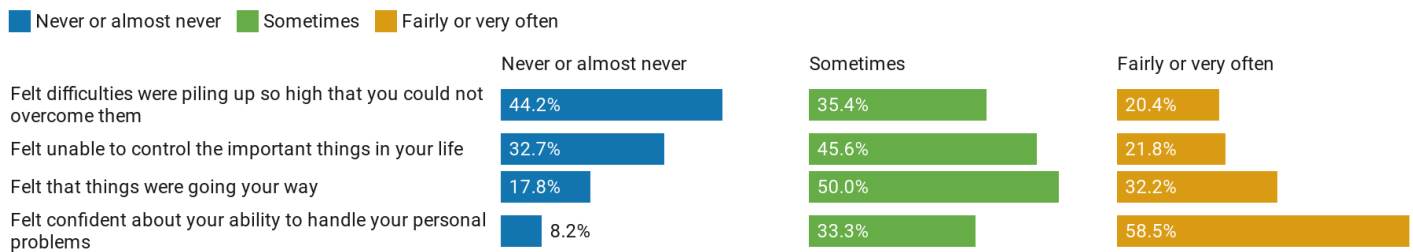


Figure 21. Respondent answers to four questions that measure perceived stress.

In examining the relationship between perceived stress and perceived helpfulness of mental health resources (results shown above), data suggest there are significant relationships- people with higher perceived stress are more likely to perceive mental health resources to be helpful. However, 52% of respondents that sometimes, fairly or very often felt unable to control things in their life indicated that mental health resources would not be helpful or only somewhat helpful. Similarly, more than half (53%) of respondents that never, almost never or sometimes felt things were going their way indicated that mental health resources would not be helpful or only somewhat helpful. Furthermore, the majority (72%) who indicated they have trouble asking for help, also perceived mental health resources as unhelpful. These results suggest that there are opportunities to provide mental health resources to farm and food business owners and employees, especially in a way that doesn't require them to ask for help.

Conclusion

The results of this study suggest that Vermont's farms and food businesses, and the response needed to provide assistance includes two major timepoints. First, the short term: the majority of respondents believe that the impacts they are facing will last for another 1-2 years. Furthermore, the majority of businesses made a major change since the pandemic. **This suggests that short-term relief and technical assistance is still critically necessary as many businesses are still in crisis and response to ongoing challenges.** Furthermore, we observe varying business performance and resiliency profiles within this study sample, indicating that programs will need to address these different business profiles. This clearly highlights a one-size-fits-all approach for Vermont farms and food businesses will not be relevant, and many smaller businesses continue to struggle with applying for programs and funding opportunities.

"We're glad to be able to produce and provide food during the pandemic."

- Vermont Farm/Food Business Respondent

However, the results also suggest that many of the changes implemented are perceived as opportunities for the future, providing potential additional needs with strategic planning, market shifts and new business opportunities to sustain Vermont farm and food businesses in the future under a 'new normal'. However, while farms and food businesses continue to face response and crisis today, such longer-range strategic planning may not be possible or appropriate until appropriate assistance and stabilization is achieved. One key area of clear opportunity is the increase in future market intention for web and e-commerce among Vermont's farms and food businesses. This provides a clear opportunity to address both the short-term and the long-term. Since many businesses shifted towards online markets during the pandemic, technical assistance and infrastructure is still relevant for today. Furthermore, many respondents wanted to shift towards these online markets, but didn't have the marketing or financial capacity to do so. As well, online markets are also among the market channels most anticipated for the future, suggesting that investment in online markets for Vermont farms and businesses today, will provide both immediate and long-term potential benefits.

Finally, while the extent of impacts across farms and food businesses varied among business types, one consistent finding was that many of the people working in these industries are struggling with mental health, and may benefit from mental health resources and further assistance. Importantly, since many people indicating mental health challenges also indicated they had trouble asking for help, and/or that mental health resources wouldn't be helpful, delivering mental health resources may best be done in a systematic way. For example, mental health resources could always accompany technical assistance, grant applications, or other touchpoints with farm and food businesses. By not requiring people to ask for help, and instead providing it as a default, farmers and food businesses may be able to seek additional help for the stress that COVID-19 has placed on many people.

“People appreciate more than ever local, ecologically grown vegetable and fruit starts, as well as flowers for emotional support.”

- Vermont Farm/Food Business Respondent

Vermont's farms and food businesses have faced unprecedented challenges since COVID-19, but there are many signs of resilience and opportunity for COVID-19 to shift the food system in ways that could benefit Vermont. Seizing these opportunities, while adequately addressing the current impacts and challenges will be critical for the future success of Vermont's food system. This study provides potential insights and pathways into achieving that success.

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