

State of Colorado:

# **Small Business Resilience Index**

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# Executive Summary

## Background

In 2021, Energize Colorado convened experts in business, innovation, public health, and data science to create an index that measures the resilience of small businesses within the state of Colorado. The purpose of this project was to develop and validate this tool, known as the Small Business Resilience Index (SBRI), to understand the social and business challenges small business owners face today and to increase the capacity of small businesses and the state of Colorado to thrive in the face of environmental and cultural shocks and shifts, such as the COVID-19 pandemic.

## Methods

A resilience survey instrument was created that assessed social and operational performance of small businesses, based on key measures of business health and success found in the scientific literature. The survey was sent electronically to approximately 14k small business owners from Energize Colorado's database. Data analysis included descriptive statistics and statistical tests measuring correlation between the SBRI, demographics, and overall business performance, in order to understand predictors of small business resilience.

## Results

In total, 729 business owners completed the survey. The average age of respondents was 50, and the majority of the sample was female (58.8%). 69.3% of respondents were White, 12.2% were Hispanic, and 4.9% were Black. 82% of respondents said the 2020 pandemic and lockdowns had hurt their businesses, and 46.5% of businesses said they believed they would not be able to continue to operate if another lockdown happened today.

Respondents reported that the greatest barrier to success was access to funds and capital, which disproportionately impacted businesses with net revenue under \$500k/year. There was also a ‘K-shaped recovery’ trend, with businesses who made \$500k or less in net revenue lagging behind. Data analysis and extrapolation using demographics statistics suggest these businesses lost an estimated 7.5 to 8.2 billion dollars in profit over 2020, equal to 2.3% of Colorado’s total GDP. Our findings also illustrate that the SBRI is highly correlated with small business performance and outlook, and we believe it is the beginning of a validated, quantifiable metric of resilience that can be used to help guide public policy and localized interventions.

## Discussion

Findings from this survey suggest that it may be crucial for governments to help businesses obtain funding across several levels and sectors, as it was commonly reported that federal aid was difficult to obtain over the pandemic, especially for businesses making under \$500k annually in net revenue. Additionally, it may be prudent to recognize that social and economic shocks impact diverse communities in different ways. Therefore, exploring alternatives to a “one-size-fits all” approach, such as lockdowns, when managing pandemics (or other crises) may improve resilience for both people and systems. Respondents reported that the tactics that would most help them increase resilience include more funding opportunities, programs that help increase staff and find skilled employees, and regulation changes like lower taxes and more flexible requirements for small business insurance.

# Background

The U.S. economic landscape has changed dramatically over recent decades, with major transformations triggered particularly by the 2001 and 2008 recessions and most recently, the COVID-19 pandemic.<sup>1</sup> Small business owners, whose challenges often include lack of access to adequate capital, minimal business expertise, and limited digital presences, are especially vulnerable to such socioeconomic shocks.<sup>2</sup> Consequently, leaders in business have suggested that to thrive in the modern economy, business owners will need to cultivate new skills like comfort with ambiguity, curiosity and creativity, the ability to establish networks, and perhaps most prominently, resilience.<sup>3</sup> Resilience, a deeply interdisciplinary scientific field, can be thought of as the capacity of people and their self-organized systems to absorb shocks, cope with stress, and maintain growth.

Over the past two years, many organizations have conducted state-level surveys of the experiences of small businesses, including in Colorado, in an effort to develop recovery policies and programs that address their needs especially as a consequence of COVID-19.<sup>1,4</sup> While these surveys are valuable, there is a broader need to understand and measure small business resilience not just within the context of specific stressors and from the perspective of specific locales, but within a universally applicable context and against unpredictable future shocks as well. Small business resilience can only be managed if it is assessed and understood as the sum of its component parts. This report assesses two forms of “resilience capital” proven to be critical to overall small business success: social capital and operational capital. “Social Capital” can be thought of as the measurable links (e.g., hope, belonging), shared values (e.g., inclusion, mutual support) and understandings (e.g., future orientation) in a community that enable individuals and groups to trust each other and work together. “Operational Capital” can be thought of as those traditional operational indicators, such as business networks, access to funding, or employee turnover, that support small business owners in building and managing a thriving enterprise.

**Figure 1: Small Business Resilience Index**



In rapidly changing times, the past may not be the best indicator for how the future of a business will unfold. Unlike in large companies, many small business owners view their business as an extension of who they are as individuals. Their business is often connected to their identity and has a social component. This is why the personal wellbeing and resilience of a small business owner can have outsized impact on the operational success of their enterprise. Therefore, empirically assessing the relationship between social and operational factors for small business resilience, especially after a devastating shock like COVID-19, can help prepare for uncertain futures even while gaining new insights about the present.

In 2021, Energize Colorado convened a group of experts in business, innovation, public health and wellbeing, cultural analytics, and data science research to create a tool to measure the resilience of small businesses within the state of Colorado, known as the Small Business Resilience Index (SBRI). The purpose of this project, through the development of the SBRI, is to use data-driven insights to understand the sociocultural and business operations challenges small business owners face today and to better prepare small businesses and the state of Colorado specifically for future socioeconomic challenges such as (but not limited to) COVID-19. Ultimately, this study may help uncover new ways to strengthen the small business ecosystems that make up nearly 50% of Colorado's private workforce.<sup>5</sup>

# Methods

From August and September 2021, researchers from Energize Colorado conducted a survey of small businesses in Colorado. The survey consisted of questions across three categories: demographics questions, small business resilience questions (see ‘Small Business Resilience Index’), and questions that measured business performance (see ‘Business Performance Metrics’). A more detailed discussion of study methods and exploratory factor analysis methodology can be found in Appendix B, and specific survey questions can be found in Appendix C.

**Figure 2: Measures for Small Business Resilience Study**



## Small Business Resilience Index

The Small Business Resilience Index seeks to quantifiably measure the small business ecosystem in order to improve the resilience of small businesses and provide future guidance to small business owners, associations, and governmental leaders in Colorado. As previously mentioned, our index is composed of two, interrelated metrics of Resilience Capital: 1) Social Capital, and 2) Operational Capital. Together, these two data sets when combined are referred to as the Small Business Resilience Index (SBRl).

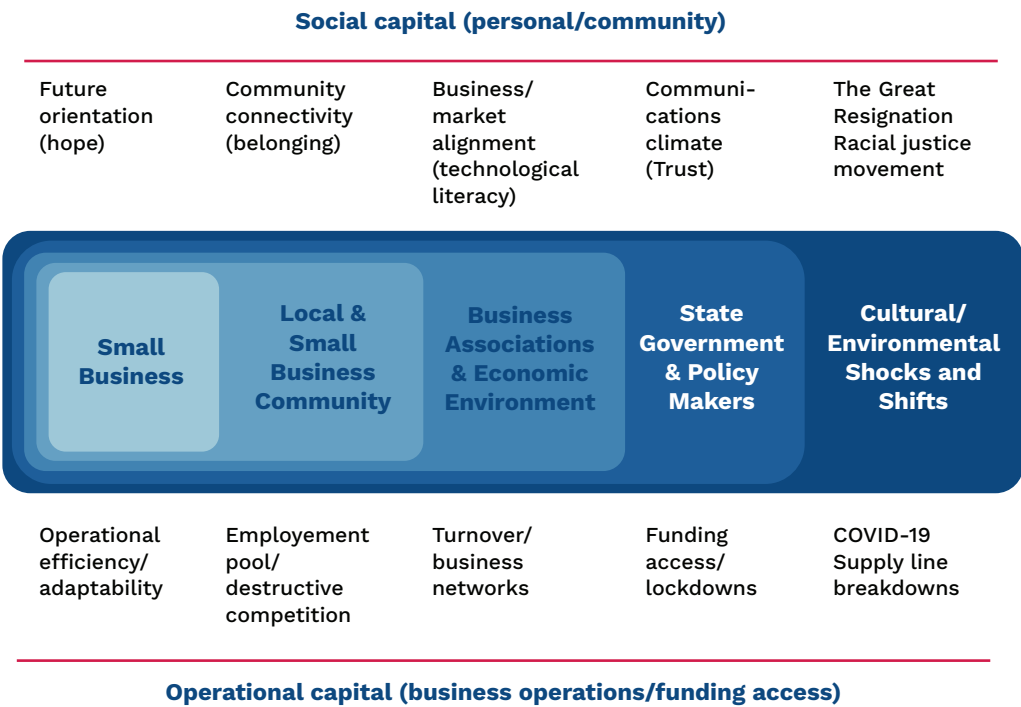
Measures of Social Capital aim to understand the cultural environment in which small business owners operate by assessing the following: Future Orientation (Hope), Communications Climate (Trust), Community Connectivity (Belonging), and Business Market Alignment (Technological Literacy) (see Figure 3 below). Hope, Trust, and Belonging are scientifically validated measures of cultural wellbeing and have been used to assess the health of organizations, including universities, healthcare systems, and businesses.<sup>6</sup> Hope, Trust and Belonging are ultimately measures of wellbeing of

small business owners, which in turn influence small business resilience and overall performance. Together these measures help us understand the overall sociocultural wellbeing of the small business ecosystem in Colorado, and more importantly, help us identify new opportunities for improving small business resilience. For in-depth definitions of these measures, see Table 2 (Appendix A).

Measures of Operational Capital assess the operational/business assets of a small business and barriers to success. These metrics assess the health of the following in a small business context: Business Networks, Operational Efficiency, Adaptability, Turnover, Funding Access, Employment Pool, and Destructive Competition. For detailed definitions of these measures, see Table 1 in Appendix A.

Figure 3 illustrates the ecological framework which emerged through data analysis for our index, and how the index relates to the small business ecosystem across the multiple layers of the Colorado economy.

**Figure 3: Ecological Model of Small Business Resilience**

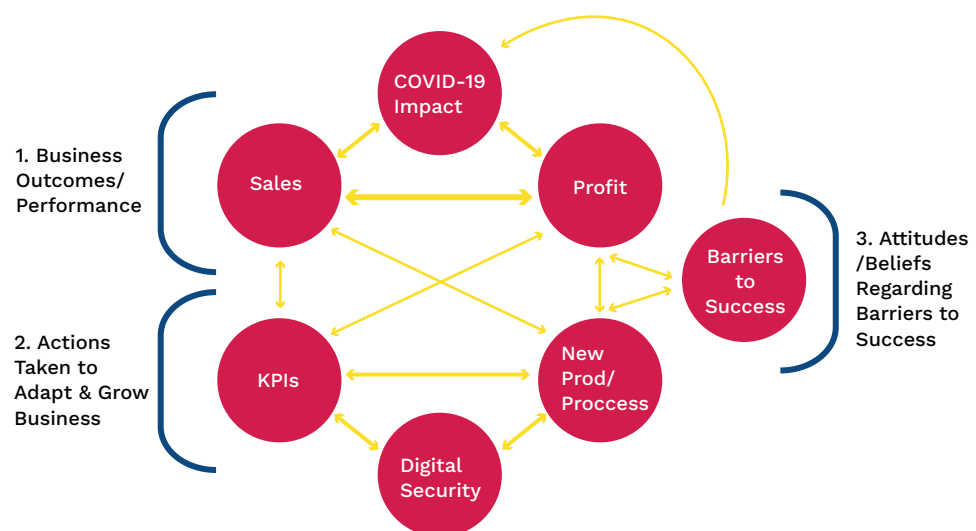


## Business Performance Metrics

In addition to our index measures, we gathered information regarding seven key quantitative performance metrics of small businesses over 2020. These metrics fall into one of three categories: outcome/performance of business in the year 2020, actions taken by owners to adapt and grow their business, and attitudes and beliefs regarding barriers to business success (see Figure 4 below). Detailed descriptions of each metric can be found in Table 3 (Appendix A).

Figure 4 illustrates the seven metrics measured in this survey and their correlations with one another. Strength of correlation is illustrated by the thickness of the arrow connecting the metrics. Business outcomes/performance were measured by businesses reporting their loss/gain of sales and profit over the last year, and reporting on the overall impact of COVID-19 on the health of their business. Metrics related to actions taken by business owners in 2020 to adapt and grow their businesses were measured by the number of key performance indicators (KPIs) tracked by small businesses, number of digital security practices adopted by small businesses, and the number of new products/processes adapted in response to 2020. Finally, we asked businesses to report on the number and types of perceived barriers to the success of their small business. These seven metrics were scored and totaled to create a combined Business Performance Metric, which is used in our analysis to measure how small businesses performed during 2020.

**Figure 4: Small Business Performance Metrics**



\*\*Arrow thickness illustrates the strength of correlation between two spheres or measures (i.e., how strongly the two measures are related).

## Data Analysis

Our analysis focused on the following: (1) establishing the validity and strength of our index, (2) understanding the experiences and challenges of small businesses in Colorado today as measured by our index and related factors, and (3) measuring the correlative strength/predictive power of our Small Business Resilience Index and the Business Performance Metric score. Surveys were sent out to approximately 14,000 small business owners, with 729 respondents completing the survey. The sample of 729 represents a 99% confidence interval with a 5% margin of error, even when accounting for a total of 653,000 small businesses currently registered within the state of Colorado. Relationships between variables were statistically analyzed using a probability threshold of less than 0.05 ( $p < 0.05$ ).

## Results

### Demographics Statistics

In total, 729 respondents completed the survey. The majority of respondents (58.8%) were female. Most of the respondents (66.0%) had at least a bachelor's degree, and the majority reported their race as White (69.3%). In contrast, statewide data in 2021 indicate women comprised 44.5% of small business ownership, Hispanics comprised 11.1%, and racial minorities comprised 7.4%.<sup>5</sup>

About half (50.9%) of respondents were located in the Denver Metro area. The average number of business locations was 4.1, with an average of 3.6 full-time employees, 2.5 part-time employees, and 2.0 contractors.

## Respondent Snapshot (n=729)

- Average age: **50** (min: 22, max: 83)
- **58.8%** female, **38.4%** male
- **5.6%** of respondents identified as part of LGBTQ+ community
- Average number of:
  - Business locations: **4.1**
  - Full-time employees: **3.6**
  - Part-time employees: **2.5**
  - Contractors: **2.0**
- Geographic location:
  - **50.9%** of businesses have locations in the Denver Metro area
  - **13.2%** in the Pikes Peak region
  - **10.2%** in Northern Colorado
- Race/Ethnicity:
  - **69.3%** White
  - **12.2%** Hispanic or Latina/o
  - **4.9%** Black
  - **3.0%** Asian
  - **2.3%** Native American
- Education:
  - **66.0%** have at least a bachelor's degree
  - **25.0%** have at least an associates degree or some college or technical training/certification

## **Additional Descriptive Statistics:**

- 47.7% of businesses reported less than \$100,000 in revenue last year, and 92.3% reported less than \$1 mill
- 34.1 % reported a >15% decrease in overall sales, while 16.0% reported a >15% increase in overall sales
- 36.0% reported a >15% decrease in profit last year, compared to 8.0% reporting a >15% increase
- 55.0% of businesses reported that their business was very negatively affected by the 2020 pandemic and lockdowns, and 27.0% responding they were negatively affected
- 46.5% of businesses believe that they would not be able to continue to operate if another lockdown happened today

## **Small Business Resilience Index Results**

Average graded scores on each of the components of the Small Business Resilience Index (SBRI) are presented below, where a 0 is the minimum possible score, and 100 is the maximum possible score. Across individual respondents, the lowest total SBRI score received was a 1/100, and the highest composite SBRI score received was an 89/100.

- SBRI Measures of Social Capital
  - Business/Market Alignment (Technological Literacy) - 68/100
  - Community Connectivity (Belonging) - 66/100
  - Future Orientation (Hope) - 64/100
  - Communications Climate Assessment (Trust) - 51/100

Findings for the Social Capital measures illustrate that the lowest scores were obtained across the Communications Climate, or Trust, measure. This suggests that the actions of the state government and policy makers during the last year have greatly impacted small business owners' trust in state leadership. Additionally, this signals that communication pathways between government officials and Colorado's small business owners on policies, procedures, and economic recovery is lacking.

— SBRI Measures of Operational Capital

- Employment Pool - 70/100
- Operational Efficiency - 66/100
- Destructive Competition - 60/100
- Turnover - 58/100
- Business Network - 57/100
- Adaptability - 47/100
- Funding Access - 35/100

Findings for Operational Capital show that funding access for small businesses during the pandemic was a significant obstacle to overall success during the previous year. Additionally, we found that this directly contributed to the low ratings of adaptability of small businesses. Small businesses are also struggling with turnover of employees and the overall strength of their business networks.

## Predictors of Small Business Performance in 2020

Below, we detail key predictors of small business performance over 2020. A detailed overview of these findings can be found in Table 3 in Appendix A.

### COVID-19

The extent to which a business was affected by COVID-19 over the past year, including lockdowns, was correlated with the following SBRI measures: Adaptability, Future Orientation, and Communications Climate Assessment. Other measures that corresponded with COVID-19 impact included sex (males reported being more negatively impacted by COVID-19 than female business owners), and industry, where the most negatively impacted sectors were leisure and hospitality, trade, and information.

### Sales/Profits

The SBRI measures that predicted sales and profit performance included Access to Cash/Business Funding and Loans, Future Orientation, and Communications Climate. Other measures that predicted sales/profit performance included disability and veteran status (those with disabilities and veterans experienced a greater decrease in sales and profit), and industry, with businesses in the information, educational and health services, and construction sectors reporting the greatest loss in sales and profit.

### KPIs

The number of KPIs a business measured was highly correlated with Business/Market Alignment, Business Network, Sales/Profit, Digital Security, and New Products/Processes. This suggests businesses who measure more KPIs seem to be more technologically savvy, have high levels of digital security behaviors, and are able to implement technological solutions into their businesses. They also tend to have better business networks and were able to adapt more quickly to the fallout of COVID-19 lockdowns. This translated into better overall performance with sales and profits as well.

Other predictive factors included education (in general, business owners with higher education reported tracking more KPIs), revenue (the smaller the business, the fewer number of KPIs tracked), and industry (manufacturing, natural resources, and mining businesses tracked the most KPIs). When asked what specific KPIs business owners

use to measure success, the five most common responses were revenue (73.7% of respondents), customer satisfaction and/or retention (56.3%), production costs (29.0%), quality of service/product (10.9%), and employee performance (10.2%).

### **New Products/Services**

The SBRI measures that predicted the number of new products or services a business adopted over 2020 included Business Market/Alignment, Business Network, Future Orientation, Adaptability, Community Connectivity, Operational Efficiency, and Sales/Profit. These findings suggest that businesses that adopted more new processes and changed their product/service offerings during the pandemic also showed increased operational efficiency, adaptability, and overall better alignment with business/markets. These businesses also demonstrated stronger future orientation, connection to the community, and business networks. This all resulted in better reporting of sales and profits during the pandemic year. A business' revenue was also a predictor of this measure; that is, the lower the revenue, the fewer number of products/services adopted. This suggests that the smaller the business, the harder it was to change core business practices; larger businesses were better equipped to adapt.

These findings also suggest that changing products/pathways of product delivery is a crucial behavior for small businesses striving to adapt to changing sociocultural or economic conditions in the market. Those who are better at identifying how to change are in general more successful. However, when contextualized by findings associated with the size of the business (specifically, that larger businesses were more able to change their processes and smaller businesses had significant issues getting access to funding), it would seem that the greatest barrier to small business success is access to funds, for the purposes of being able to change/adapt business processes to meet the demands of a changing environment.

### **Digital Security**

The number of digital security measures a business took over the past year was correlated with Business/Market Alignment, Business Network, Operational Efficiency, Adaptability, and Employment Pool SBRI measures. Unsurprisingly, businesses that took more measures to secure their company from digital security threats in general showed greater technological adoption and adaptability. As this measure was also correlated with ratings of a higher quality employment pool, better business networks, and greater operational efficiency to scale their business up and down quickly to meet changes in demand, it may be that knowledge and efficacy with digital security in the modern era is a precursor to overall technological literacy and fluency in business practices.

Other predictors of digital security included LGBTQ+ status (LGBTQ+-owned businesses showed a greater adoption of security measures compared to the general population), ethnicity (Hispanic-owned businesses showed the lowest levels of digital security literacy), and education (more education was correlated with greater digital security literacy). The industries with the greatest digital security literacy were information, professional business services, and financial services; all other industries lagged behind on this measure.

### **Barriers to Success**

The total number of barriers identified to a business being successful by owners was inversely correlated to Future Orientation, Communication Climate Assessment, and all seven measures of Operational Capital. In addition, the number of barriers reported was inversely correlated with sales/profitability of the business. The number of barriers to success reported was also higher across racial minority groups.

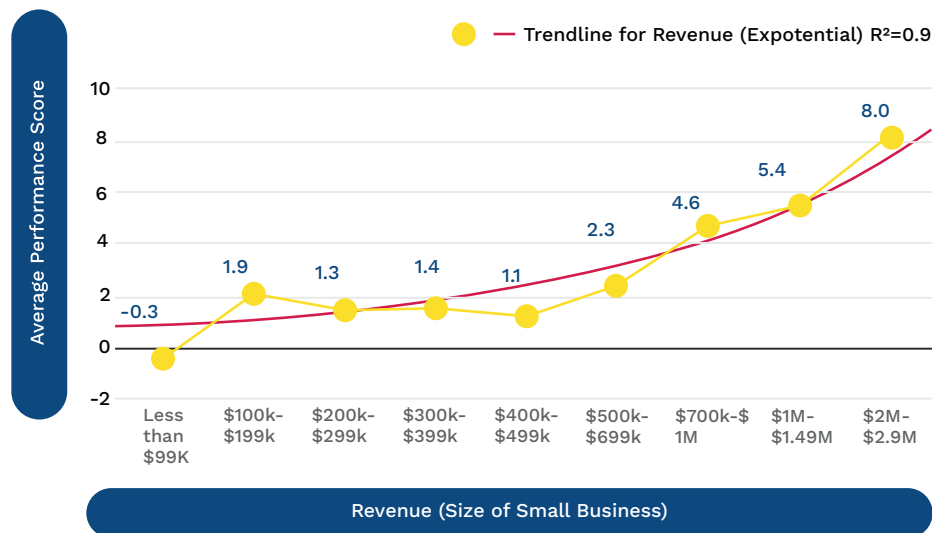
Members of the LGBTQ+ community reported the highest average number of barriers to business success, but had some of the highest overall metric performance scores of any other population, potentially illustrating significant resilience in the face of challenges.

It should be noted that significant differences in number of barriers were not reported by region, industry, sex, disability, education, or revenue (size of business). One interpretation of this finding is that it is the belief that you face barriers to business success that influences success, not the actual existence of barriers. While attitudes may impact success, it should also be noted that for smaller businesses, actual access to funds during the last year's disruptions was an important factor influencing success with sales and profit.

## Other Critical Findings

Below, we illustrate how small businesses performed (Business Performance Metric—sales/profit, KPIs, etc.) in 2020 across key demographic variables. The minimum and maximum possible scores on the Business Performance Metric were -18 and 31, respectively (negative values are possible as some measures measure loss, i.e., it is possible to have negative sales and profit). The total range of the Business Performance Metric scores obtained was -14 to 26, with an average score of 3.

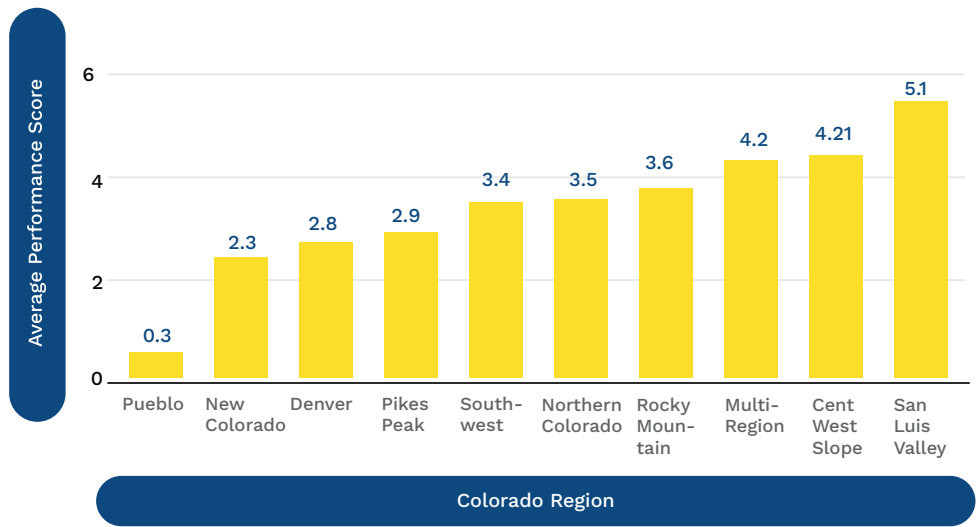
### a. Business Performance Metric by Revenue (Size of Company)



Business revenue was found to be significantly correlated with Business Performance Metric Score, with higher scores seen especially beginning around a revenue of approximately \$500,000/year or more (it should be noted that this trend is exponential). In other words, the larger the business, the better overall performance during the last year. This was greatly mediated by access to funds to adapt business processes.

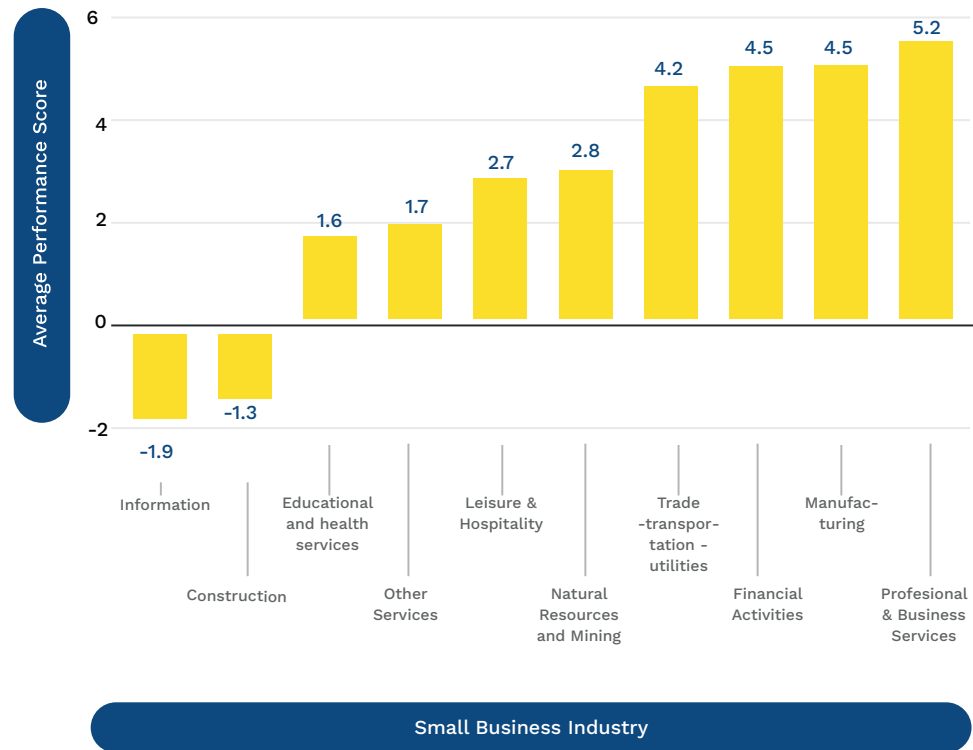
Data analysis and extrapolation using demographics statistics suggest all small businesses with a revenue of \$500,000 or less lost a cumulative estimated 7.5 to 8.2 billion dollars in profit over 2020, equal to 2.3% of Colorado’s total GDP.

**b. Business Performance Metric by Region**



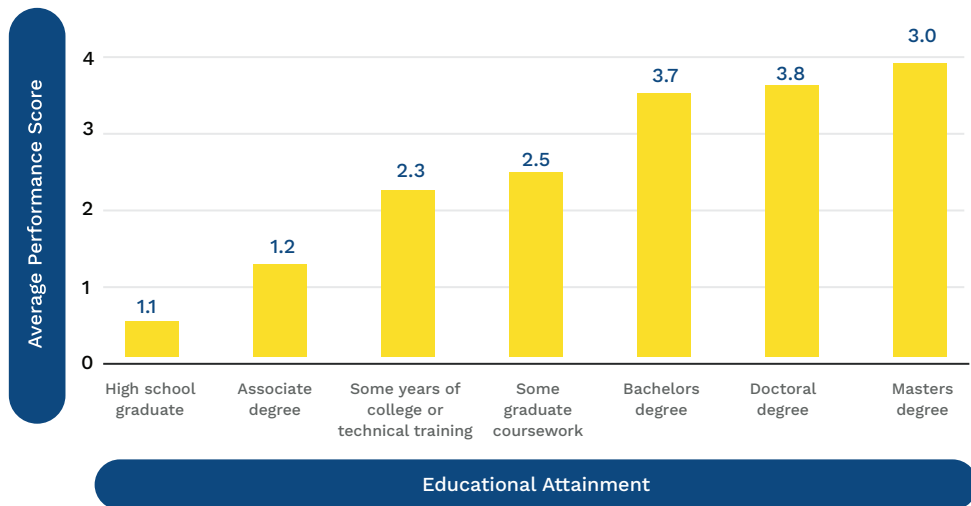
While not found to be statistically significant, the highest scores on the Business Metric Score were reported by businesses in the San Luis Valley region, while businesses in the Pueblo region scored the lowest. However, as discussed in the above Predictors of Small Business Performance results section, there are some individual metrics which did demonstrate statistically significant differences the regional level.

### c. Business Performance Metric by Industry



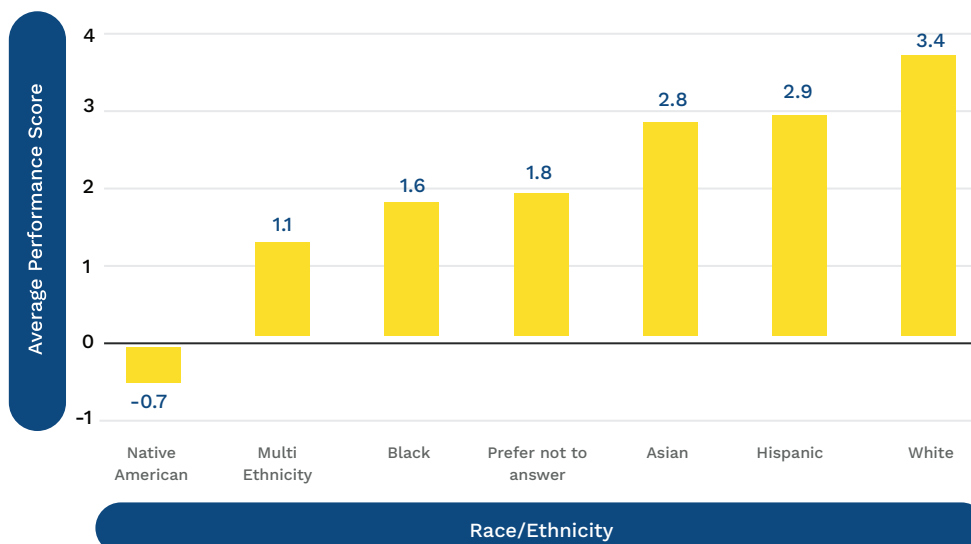
A statistically significant relationship was found between Business Metric Score and industry. The industries with the highest scores were professional business services, manufacturing, and financial services. The lowest score were obtained by businesses in the information and construction sectors.

#### d. Business Performance Metric by Education



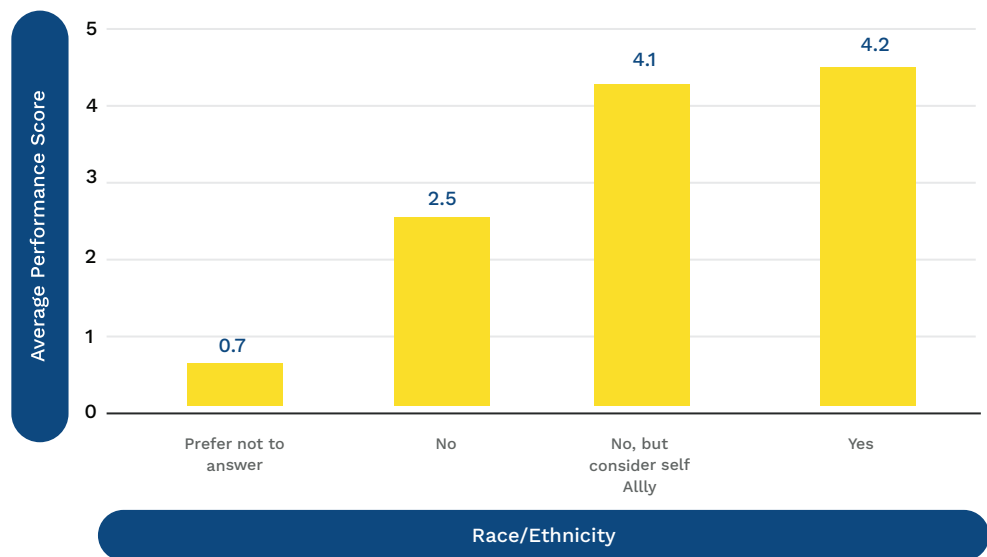
While not statistically significant, it was found that in general, business owners with higher levels of education performed better over the last year. Discussion in previous sections show that higher education is also associated with tracking KPIs, and technological literacy.

#### e. Business Performance Metric by Race/Ethnicity



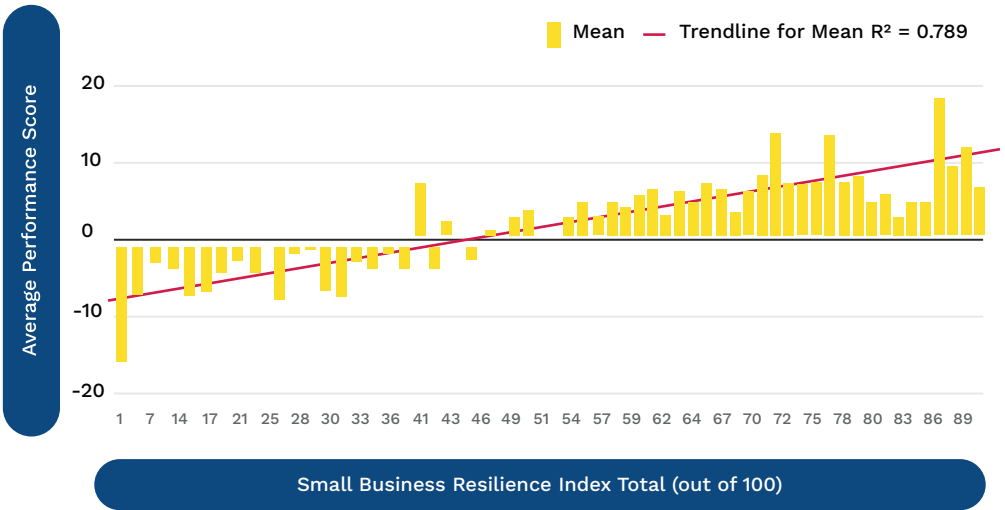
There was no statistically significant difference in Business Performance Score between racial/ethnic groups. The majority of the sample was comprised of White business owners, so findings may not be representative of racial/ethnic minority groups due to lack of adequate distribution of some groups. However, it should be noted that Hispanic and Black business owners had adequate representation in the sample relative to their share of small business owners statewide, and White business owners were underrepresented in this sample by this same measure. Additionally, some significant differences by race/ethnicity exist across specific individual components of the SBRI, as discussed previously.

#### f. Business Performance Metric by LGBTQ+ Status



A statistically significant relationship was found between LGBTQ+ status and Business Metric Score, with those identifying as either a member of the LGBTQ+ community or an Ally of the LGBTQ+ community scoring higher on average than comparison groups.

**g. Business Performance Metric by SBRI**



Results from the survey indicate there is a linear relationship between a small business' overall Business Performance Metric score (i.e., sales/profit, KPIs) and the SBRI (business resilience). The lowest possible score one could receive on the SBRI was a 0, and the highest was 100. The range of scores across survey respondents was 1 to 89.

This relationship was found to be statistically significant, with a p value of  $<.0001$ . This finding illustrates that our index can be used to reliably predict the overall performance of a small business ecosystem.

# Discussion

Across diverse fields, including business, public administration, and government, crisis management is often divided into three stages: (1) Pre-Crisis Management (prevention and preparation), (2) Crisis Management (response), and (3) Post-Crisis Management (learning and revision).<sup>7,8</sup> As such, findings from this survey and resultant implications for policy development may be best categorized under this framework. In context of the COVID-19 crisis for small businesses, widespread lockdowns and funding initiatives over 2020 might be considered part of the “Crisis Management” stage; while COVID-19 is still a looming presence, we can consider that the first stage of response has provided enough data that we can move into the learning and revision stage to better prepare for the future. Using lessons from the “Post-Crisis Management” stage and findings from the SBRI, we may then be able to craft policies and programs that can empower businesses to increase overall resilience and protect against diverse future shocks, or “Pre-Crisis Management”. It is in these latter two categories that we feel our research may provide the most utility for policymakers.

## Post-Crisis Response: Potential Solutions

While findings from this study are applicable beyond the crisis introduced by COVID-19, a number of points specific to the pandemic and crisis management are worth discussion. Results from this study suggest that federal COVID-19 relief was not reliably available for small businesses, especially for those with total annual revenue of \$500,000 or under. This trend has been reported across other locales as well; over the course of the pandemic, larger businesses with better established infrastructure, expertise, and connections have more often been the primary beneficiaries of government fiscal aid.<sup>9</sup> It is important for state governments to recognize that small businesses need access to and coordination of several levels of resources—including at the local, state, and federal levels and across both the public and private sector as well—in order to thrive.

Almost half (46.5%) of all businesses surveyed indicated that they would not be able to continue to operate if another lockdown happened today. This suggests that alternate safety measures should be considered when pursuing future steps in management of the pandemic (or future public health crises), to minimize small business shutdowns and protect the large number of residents with jobs in the small business sector of Colorado. Additionally, consistent and frequent communication concerning economic policies, recovery, aid, and business assistance programs should be prioritized in an effort to build a stronger communications climate between policy makers and small business owners.

## **Pre-Crisis Response: Potential Resilience Policies**

When respondents were asked what would help make their business more resilient to changes and/or disruptions, the most common response was additional funding or savings (45.4% of all responses), including more grant and loan opportunities. Several respondents indicated that “one-size-fits all” relief efforts had excluded them from eligibility for grants or funding. The second most common response was decreased COVID-19 impact or lockdowns (19.1%), and the third most common response was increasing staff and/or business capacity (16.6%). Respondents also cited regulation changes (14.6%) as key to building resilience—for example, lower taxes, willingness from politicians to include small businesses in policy decisions, and looser requirements for small business insurance.

“Main Street Programs” and other government-sponsored initiatives to support and revitalize small businesses are increasingly becoming popular across the country (including in Colorado<sup>10</sup>) and may be useful in addressing barriers like those reported from survey respondents. It may be beneficial to ensure these programs are being promoted locally, and/or are continually modified based on needs analysis of small businesses. These initiatives might include free educational programs for business owners (for example, one state partnered with a local university to offer a free “Start Your Own Business” course)<sup>2</sup>; such programs might provide education surrounding starting and managing businesses, resources for navigating grant and loan applications, networking opportunities to connect with other small business owners, digital security, and/or training on creating and tracking KPIs. In Colorado, programs such as those outlined by the University of Colorado Denver in its 2030 Strategic plan focus on becoming the first equity-serving institution in the U.S. and an innovation hub for Denver. Programs like these may create mutually beneficial pathways between industry and diverse small businesses.<sup>11</sup> Similarly, it may be beneficial for local governments to set up small business mentorship programs, in order to help new or struggling business owners connect with business owners with more experience.

Increasing access to funding opportunities, specifically for small businesses making under \$500k a year in total revenue, is likely the single most impactful measure governments could implement to strengthen business resilience. Potential solutions for helping with access to funding and network building might include looking for nontraditional sources of capital investment, especially solutions that involve participation from local communities (e.g. crowdsourced capital competition for businesses unable to obtain appreciable loans from banks, judged by members of the community, or membership-style investment programs where businesses pay interest on the loan via monthly gift cards).<sup>2</sup>

Finally, we recognize that what gets measured gets managed. Over the past year there has been a growing call from organizations like the Brookings Institute<sup>12</sup> and the Organization for Economic Cooperation and Development (OECD)<sup>13</sup> to incorporate the benefits of a transdisciplinary science approach to improve economic output. One outcome of such an approach could be an integrated data dashboard pulling from various disciplines, ranging from public health and wellbeing to economics. Such an effort may lead to better data modeling and a deeper understanding by policy makers for how to operationalize resilience into existing and emerging systems.

## **Future Research**

Future research regarding small business resilience might include a more detailed analysis of specific racial and ethnic groups (our sample size for non-White populations was small, impacting generalizability to these subpopulations). One interesting finding was that business owners without high school degrees had the highest SBRI scores of all educational groups; however, the sample of respondents in this category was not generalizable, due to small sample size. It could be that business owners without formal secondary education might approach problems with unconventional tactics, or that they represent a “positive deviance” subgroup and have discovered creative ways to thrive in the face of challenge; future research of this group may yield important lessons in resilience. Finally, it may be useful to understand differences in experiences across business sectors and geographical regions, as survey findings suggest their SBRI scores and experience of socioeconomic shocks may vary. It may be that viable strategies to increase resilience across both sector and geography differ.

## References

1. Muro M, Maxim M, Whiton J. State of Renewal: Charting a New Course for Indiana's Economic Growth and Inclusion. Brookings Institute. Published February 2021. Accessed October 2021. [https://www.brookings.edu/wp-content/uploads/2021/02/2021.02.10\\_BrookingsMetro\\_Indiana-State-of-renewal.pdf](https://www.brookings.edu/wp-content/uploads/2021/02/2021.02.10_BrookingsMetro_Indiana-State-of-renewal.pdf)
2. Love H, Powe M. Rural Small Businesses Need Local Solutions to Survive. Brookings Institute. Published December 1, 2020. Accessed October 2021. <https://www.brookings.edu/research/rural-small-businesses-need-local-solutions-to-survive/>
3. Bower T. The Future of Work Will Demand these 8 New Skills. Forbes. Published February 14, 2021. Accessed October 2021. <https://www.forbes.com/sites/tracybrower/2021/02/14/the-future-of-work-will-demand-these-8-new-skills/?sh=4555361322e6>
4. Colorado Business COVID-19 Impact Survey: a Survey of Colorado Businesses on the Early Impacts of the Pandemic and Initial Recovery Strategies. Choose Colorado. Published May 2020. Accessed October 2021. <https://choosecolorado.com/wp-content/uploads/2020/05/Colorado-Business-COVID-Survey-Results-2020-FINAL.pdf>
5. 2021 Small Business Profile: Colorado. U.S. Small Business Administration Office of Advocacy. Published 2021. Accessed October 2021. <https://cdn.advocacy.sba.gov/wp-content/uploads/2021/08/30141326/Small-Business-Economic-Profile-CO.pdf>
6. Lister C, et al. Cultural Wellbeing Index: A Dynamic Cultural Analytics Process for Measuring and Managing Organizational Inclusion as an Antecedent Condition of Employee Wellbeing and Innovation Capacity. Journal of Organizational Psychology. 2021 Jul 1;27(4).
7. Coombs WT, Laufer D. Global Crisis Management—Current Research and Future Directions. Journal of International Management, 2021, 24(3): 199-203.
8. Tokakis V, Polychroniou P, Boustras, G. Crisis management in public administration: The three phases model for safety incidents. Safety Science. 2019; (113):37-43.
9. Dinkins R, Zhu M. Overcoming Bias in Small Business Relief. Brookings Institute. Published February 16, 2021. Accessed October 2021. <https://www.brookings.edu/research/overcoming-bias-in-small-businesses-relief-in-colorado/>
10. Colorado Main Street Program. Colorado Department of Local Affairs. Updated 2021. Accessed October 2021. <https://cdola.colorado.gov/main-street>
11. CU Denver 2030 Strategic Plan. University of Colorado Denver. Updated 2021. Accessed October 2021. <https://www.ucdenver.edu/2030>
12. Addressing America's Crisis of Despair and Economic Recovery. Brookings Institute. Published July 2021. Accessed October 2021. <https://www.brookings.edu>

edu/wp-content/uploads/2021/07/Addressing-Americas-crisis-despair-economic-recovery.pdf

13. Neuroscience-inspired Policy Initiative. OECD. Accessed October 2021. <https://www.oecd.org/naec/brain-capital/>

## APPENDIX A: Tables

**Table 1: Small Business Resilience Index Measure Descriptions**

<b>Social Capital Measures</b>	<b>What does it measure?</b>
1. Future Orientation	a. Belief: Optimism b. Actions: Hope, hiring, goal-setting, pathways around problems
2. Communications Climate Assessment	a. Belief: Trust b. Actions: Communication, information transformation from the state
3. Business/Market Alignment	a. Belief: Self-efficacy b. Actions: Implementation and adoption of new processes and technologies to help business
4. Community Connectivity	a. Belief: Sense of belonging b. Actions: Feedback from community members
<b>Operational Capital Measures</b>	
1. Business Network	The quality of support network available to your business, e.g.: <ul style="list-style-type: none"><li>• Are you connected with other businesses similar to your own?</li><li>• Do you belong to business network groups?</li></ul>

2. Operational Efficiency	<p>The speed and ease with which your business operations adjust, e.g.:</p> <ul style="list-style-type: none"> <li>• Are the operations of your business efficient and can adjust rapidly?</li> <li>• Can you produce the amount of goods and services needed to meet the demands of your customers, and rapidly flex the number of workers needed to meet changes in customer demand?</li> </ul>
3. Adaptability	<p>Ability to adapt to environmental shocks and stressors, e.g.:</p> <ul style="list-style-type: none"> <li>• If your primary method of serving customers was disrupted, could you adapt and change your means of customer delivery?</li> <li>• Could your business continue to operate if there was another COVID-19 lockdown?</li> </ul>
4. Turnover	<p>Levels of involuntary (firing, layoffs) and voluntary (quitting) employee turnover due to economic constraints or hardship, e.g.:</p> <ul style="list-style-type: none"> <li>• Did your company have higher involuntary employee turnover (termination due to economic hardship) than normal in the last 12 months?</li> </ul>
5. Funding Access	<p>Access to funding to scale up or down business, e.g.:</p> <ul style="list-style-type: none"> <li>• Does your business have enough cash on hand to meet your business needs?</li> <li>• Are you currently seeking additional funding (outside of current sources) to run your business?</li> </ul>

6. Employment Pool	<p>Access to quality employees that can make your business successful, as well as ability to provide education to employees, e.g.:</p> <ul style="list-style-type: none"> <li>• Do your employees have access to essential on-the-job education and training?</li> <li>• Do your employees have the necessary skillsets and knowledge required to make your business successful?</li> </ul>
7. Destructive Competition	<p>The extent to which your environment that does not inhibit your ability to succeed as a business owner</p> <ul style="list-style-type: none"> <li>• To get along in the community, do you have to hide aspects of your identity important to you?</li> <li>• Is there destructive competition in your local community?</li> </ul>
<b>SBRI (Small Business Resilience Index)</b>	<b>A sum of all Social Capital and Operational Capital measures. This composite score measures overall business health and resilience.</b>

**Table 2: Business Metric Measure Descriptions**

<b>Business Performance Metric</b>	<b>What does it measure?</b>
<b>Outcome/Performance Metrics</b>	
1. COVID-19	Reported impact of pandemic and lockdowns on business performance
2. Sales	Percent of sale increase or decrease over the past year
3. Profit	Percent of profit increase or decrease over the past year
<b>Actions Taken to Adapt and Grow Business</b>	
4. KPIs	Number of Key Performance Indicators measured by the small business

5. New Products/Services	Number of new products, services, and/or processes adapted over the past year
6. Digital Security	Number of steps taken to protect your company against cyber threats
<b>Attitudes and Beliefs Regarding Barriers</b>	
7. Barriers to Success	Number of barriers business owners reported as a threat to their business being successful
<b>Business Performance Score</b>	<b>A sum of all Business Performance Metrics. This composite score measures business overall performance during the year 2020.</b>

**Table 3: Business Performance Predictors Overview**

<b>Business Metric</b>	<b>SBRI Predictors (What resilience factors predicted higher scores in each Business Metric?)</b>	<b>Other Predictors (What other factors predicted scores in each Business Metric?)</b>
<b>Outcome/Performance Metrics</b>		
1. COVID-19	<ul style="list-style-type: none"> <li>• Adaptability</li> <li>• Future Orientation</li> <li>• Communications Climate Assessment</li> </ul>	<ul style="list-style-type: none"> <li>• Sex (males scored lower than females)</li> <li>• Industry (Leisure and Hospitality, Trade, and Information sectors scored lowest)</li> </ul>

2-3. Sales and Profit	<ul style="list-style-type: none"> <li>• Future Orientation</li> <li>• Communications Climate Assessment</li> <li>• Funding Access</li> </ul>	<ul style="list-style-type: none"> <li>• Disability (those with disabilities scored lower)</li> <li>• Military (those with veteran status scored lower)</li> <li>• Industry (Information, Construction, and Educational &amp; Health Services scored lower)</li> </ul>
<b>Actions Taken to Adapt and Grow Business</b>		
4. KPIs	<ul style="list-style-type: none"> <li>• Business/Market Alignment</li> <li>• Business Network</li> <li>• Sales/Profit</li> <li>• Digital Security</li> <li>• New Products/Processes</li> </ul>	<ul style="list-style-type: none"> <li>• Education (the less education, the fewer KPIs)</li> <li>• Revenue (the smaller the business, the fewer KPIs)</li> <li>• Industry (Manufacturing and Natural Resources &amp; Mining tracked the most KPIs)</li> </ul>
5. New Products/ Services	<ul style="list-style-type: none"> <li>• Business/Market Alignment</li> <li>• Business Network</li> <li>• Future Orientation</li> <li>• Adaptability</li> <li>• Community Connectivity</li> <li>• Operational Efficiency</li> <li>• Sales/Profit</li> </ul>	<ul style="list-style-type: none"> <li>• Revenue (the smaller the business, the lower the number of products/ services adapted)</li> <li>• Industry (Manufacturing, Natural Resource &amp; Mining, Trade, and Financial Activities were able to change the most processes)</li> </ul>

6. Digital Security	<ul style="list-style-type: none"> <li>• Business/Market Alignment</li> <li>• Business Network</li> <li>• Operational Efficiency</li> <li>• Adaptability</li> <li>• Employment Pool</li> </ul>	<ul style="list-style-type: none"> <li>• LGBTQ+ status (LGBTQ+ owned businesses had greater digital security)</li> <li>• Ethnicity (Hispanic-owned businesses had the lowest digital security adoption)</li> <li>• Education (the higher the owner's education, the greater adoption of digital security)</li> <li>• Industry (Information, Professional Business Services, Financial Services had greater digital security)</li> </ul>
<b>Attitudes and Beliefs Regarding Barriers</b>		
7. Barriers to Success	<ul style="list-style-type: none"> <li>• Future Orientation</li> <li>• Communications Climate Assessment</li> <li>• All 7 Operational Factors in the SBRI</li> </ul>	<ul style="list-style-type: none"> <li>• Race (Racial minority groups reported the greatest number of barriers to success)</li> <li>• LGBTQ+ status (LGBTQ+ owned businesses reported more barriers to success)</li> </ul>

## Appendix B: Factor Analysis and Internal Validity

Prior to data analysis, an exploratory factor analysis was performed for all 39 Likert scale variables across the 5 established vectors that were asked in the survey. During this analysis, 11 components were observed, with an Eigenvalue above 1.0 that explained 63% of total variance.

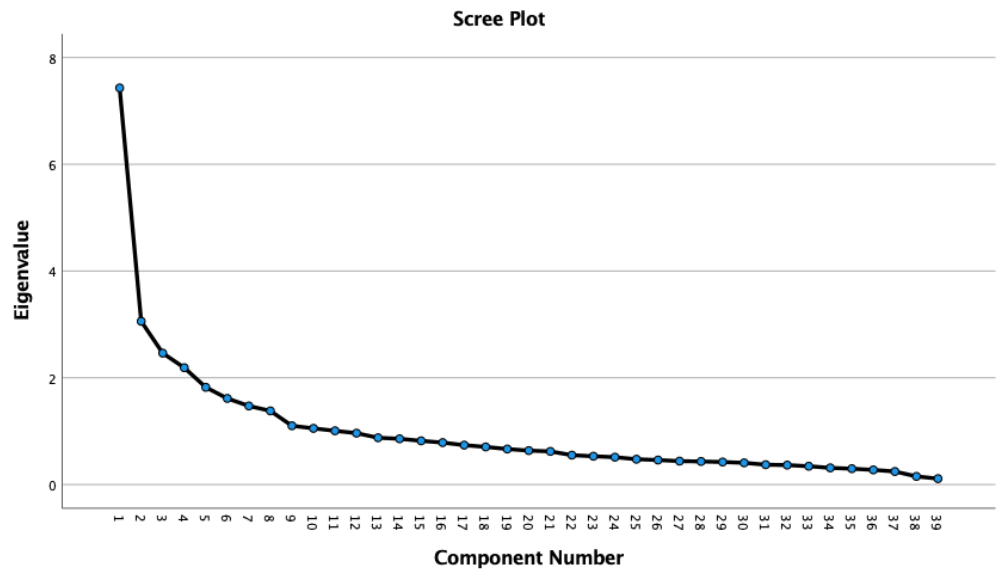


Figure1. Eigen values for Component (Index) variables.

The top 4 components that make up the Social Capital measures all had an Eigenvalue above 2 and together explained 38% of total variance. The remaining 7 components, which comprise the Operational Capital measures, explain an additional 25% of variance, for a total of 63% of total variance explained. Sixty percent total variance explained is considered to be an acceptable amount of total variance based on established research methods and protocols.<sup>1</sup>

**Table 1: Internal Validity of Factors**

**Table 1:** Internal Validity of Factors

	<b>Cronbach's Alpha</b>	<b>Average</b>	<b>Ave %</b>	<b>St. Dev</b>	<b>N</b>	<b>Range</b>
<b>Social Capital</b>						
Future Orientation	0.801	24.82	63.64%	5.043	716	7-35
Communications Climate Assessment	0.848	15.28	51.40%	4.454	718	5-25
Business/Market Alignment	0.773	18.52	67.60%	3.54	716	5-25
Community Connectivity	0.748	18.19	65.95%	3.602	723	5-25
<b>Operational Capital</b>						
Business Network	0.736	9.87	57.25%	3.051	686	3-15
Operational Efficiency	0.615	10.93	66.08%	2.297	726	3-15
Adaptability	0.709	5.77	47.13%	2.477	726	2-10
Turnover	0.616	6.63	57.88%	2.256	725	2-10
Funding Access	0.536	4.81	35.13%	2.127	729	2-10
Employment Pool	0.667	7.56	69.50%	1.618	721	2-10
Destructive Competition	0.399	6.82	60.25%	1.764	712	2-10

This table illustrates strong internal validity among the core Social Capital measures, with a Cronbach's Alpha threshold of .70 or higher.<sup>2</sup> It also shows that among the Social Capital components, the lowest scores were obtained for the Communications Climate Assessment (Trust). Operational Capital measures had lower Cronbach's alpha scores, but are still included in the analysis as they had an Eigenvalue of over 1 and explained a significant amount of observed variance.

## References

1. Peterson RA. A meta-analysis of variance accounted for and factor loadings in exploratory factor analysis. *Marketing letters*. 2000 Aug;11(3):261-75.
2. Bland JM, Altman DG. Statistics notes: Cronbach's alpha. *Bmj*. 1997 Feb 22;314(7080):572.

# Appendix C: Survey Questions

## Welcome

We want to know about you and entrepreneurs like you and where your business currently stands on matters such as your flexibility to adapt to changing environments, financial stability, and technological & digital capabilities.

Our experts have created a survey, roughly 10-minute in length, The Small Business Success Survey.

The Small Business Success Survey will allow you to compare with other businesses like yours across important business categories. The data collected will create an individualized report highlighting areas for improvement and success compared to other respondents. Thank you for investing your time in our project, as these results will benefit you.

## Disclaimer

Energize Colorado is conducting this Small Business Success Survey. The purpose of this survey is to determine the resilience of small businesses in Colorado. This survey is voluntary, and your survey responses are treated as confidential. Your survey results will be used to produce analyses and reports that are not identified with or attributed to you individually. This survey can be submitted anonymously, which means that no identifiable personal data is required to complete this survey. Submitting an email address is not required to participate. By choosing to submit identifiable information in the form of an email address, an individualized report will be generated relative to your responses to the survey. By proceeding and participating in this survey, you acknowledge the processing of your responses in the manner and for the purposes described above.

I agree to the terms indicated in the privacy policy above.

- ☐ Yes
- ☐ No

## Section 1 of 7

(6 questions)

Please indicate the region of your business (County):

Select all that apply

- ☐ Denver (Adams, Arapahoe, Boulder, Broomfield, Clear Creek, Denver, Douglas,

Gilpin, and Jefferson)

- ☐ Northern Colorado (Larimer, Weld)
- ☐ Golden Plains (Logan, Morgan, Phillips, Sedgwick, Washington, and Yuma)
- ☐ Pikes Peak (El Paso, Park, and Teller)
- ☐ Central Plains (Lincoln, Elbert, Kit Carson, and Cheyenne)
- ☐ Southeast Colorado (Baca, Bent, Crowley, Kiowa, Otero, and Prowers)
- ☐ Pueblo (Pueblo)
- ☐ San Luis Valley (Alamosa, Conejos, Costilla, Mineral, Rio Grande, and Saguache)
- ☐ Southwest (Archuleta, Dolores, La Plata, Montezuma, and San Juan)
- ☐ Central Western Slope (Delta, Gunnison, Hinsdale, Montrose, Ouray, and San Miguel)
- ☐ Northwest Colorado (Garfield, Mesa, Rio Blanco, and Routt)
- ☐ Rocky Mountain (Eagle, Grand, Jackson, Pitkin, and Summit)
- ☐ Upper Arkansas (Lake, Chaffee, Fremont, and Custer)
- ☐ Ratón Basin (Huérfano and Las Animas)

Please enter your company's Zip code below.

- ☐ (fill in the blank)

Please enter the number of your locations.

- ☐ Number \_\_\_\_\_
- ☐ NA - Virtual Only

Please enter the number of employees you currently employ.

- ☐ Full Time \_\_\_\_\_
- ☐ Part Time \_\_\_\_\_
- ☐ Contractor (1099) \_\_\_\_\_

Please select your business sector.

- ☐ Agriculture, Forestry, Fishing and Hunting
- ☐ Mining
- ☐ Utilities
- ☐ Construction

- ☐ Manufacturing
- ☐ Wholesale Trade
- ☐ Retail Trade
- ☐ Transportation and Warehousing
- ☐ Information
- ☐ Finance and Insurance
- ☐ Real Estate Rental and Leasing
- ☐ Professional, Scientific, and Technical Services
- ☐ Management of Companies and Enterprises
- ☐ Administrative and Support and Waste Management and Remediation Services
- ☐ Educational Services
- ☐ Health Care and Social Assistance
- ☐ Arts, Entertainment, and Recreation
- ☐ Accommodation and Food Services
- ☐ Public Administration
- ☐ Other Services (Please explain)

## **Section 2 of 7**

(7 questions)

Please indicate your company's revenues in the last 12 months.

- ☐ Less than \$99k
- ☐ \$100k - \$199K
- ☐ \$200k - \$299k
- ☐ \$300k - \$399k
- ☐ \$400k - \$499k
- ☐ \$500k - \$699k
- ☐ \$700k - \$1M
- ☐ \$1M - \$1.49M
- ☐ \$1.5M - \$1.9M
- ☐ \$2M - \$2.9M

- o \$3M - \$5.0M
- o Greater than \$5.0M

My company receives good and timely information when regulations change.

- o Strongly Disagree
- o Disagree
- o Neither Agree nor Disagree
- o Agree
- o Strongly Agree

My company can easily get information about business assistance programs.

- o Strongly Disagree
- o Disagree
- o Neither Agree nor Disagree
- o Agree
- o Strongly Agree

My employees have access to essential on the job education and training.

- o Strongly Disagree
- o Disagree
- o Neither Agree nor Disagree
- o Agree
- o Strongly Agree

My employees have the necessary skill sets and knowledge required to make my business successful.

- o Strongly Disagree
- o Disagree
- o Neither Agree nor Disagree
- o Agree
- o Strongly Agree

My company communicates regularly with other business in the area similar to my own.

- o Strongly Disagree
- o Disagree

☐ Neither Agree nor Disagree

☐ Agree

☐ Strongly Agree

My company receives advice/mentor ship from external advisors (formal or informal).

☐ Strongly Disagree

☐ Disagree

☐ Neither Agree nor Disagree

☐ Agree

☐ Strongly Agree

My company is connected to organizations or associations designed to help businesses like mine (e.g. Chamber of Commerce, Colorado Bioscience Association).

☐ Strongly Disagree

☐ Disagree

☐ Neither Agree nor Disagree

☐ Agree

☐ Strongly Agree

### **Section 3 of 7**

(12 questions)

My company plans on hiring more people in the next 12 months.

☐ Strongly Disagree

☐ Disagree

☐ Neither Agree nor Disagree

☐ Agree

☐ Strongly Agree

My company has had higher voluntary employee turnover (quitting) than normal in the last 12 months.

☐ Strongly Disagree

☐ Disagree

☐ Neither Agree nor Disagree

☐ Agree

- ☐ Strongly Agree

My company has had higher involuntary employee turnover (termination due to economic hardship) than normal in the last 12 months.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neither Agree nor Disagree
- ☐ Agree
- ☐ Strongly Agree

My company's operations are efficient and can adjust rapidly (as needed).

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neither Agree nor Disagree
- ☐ Agree
- ☐ Strongly Agree

My company concurrently meets the demands of my customers.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neither Agree nor Disagree
- ☐ Agree
- ☐ Strongly Agree

My company's current ability to meet customer needs is negatively impacted by external factors (e.g., suppliers, environmental).

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neither Agree nor Disagree
- ☐ Agree
- ☐ Strongly Agree

How have your sales increased or decreased over the last year?

- ☐ 15%+ Increase
- ☐ 10-15% Increase

- ☐ 5-10% Increase
- ☐ 0-5% Increase
- ☐ Neither Up nor Down
- ☐ 0-5% Decrease
- ☐ 5%+ Decrease
- ☐ 5-10% Decrease
- ☐ 10-15% Decrease
- ☐ 15%+ Decrease

How has your profit increased or decreased over the last year?

- ☐ 15%+ Increase
- ☐ 10-15% Increase
- ☐ 5-10% Increase
- ☐ 0-5% Increase
- ☐ Neither Up nor Down
- ☐ 0-5% Decrease
- ☐ 5%+ Decrease
- ☐ 5-10% Decrease
- ☐ 10-15% Decrease
- ☐ 15%+ Decrease

My company has enough cash on hand to meet my business needs for the next 12 months.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neither Agree nor Disagree
- ☐ Agree
- ☐ Strongly Agree

My company is currently seeking additional funding (outside of current sources) to run my business.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neither Agree nor Disagree
- ☐ Agree

- ☐ Strongly Agree

My customers have the resources and stability to continue buying my service/product.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neither Agree nor Disagree
- ☐ Agree
- ☐ Strongly Agree

How do you currently measure the performance of your business? (Please list all relevant metrics you use) examples: customer satisfaction, revenue, production cost, quality, waste, employee performance, timely deliveries.

(Free response)

## **Section 4 of 7**

(7 questions)

My company often uses and seeks new technology to assist and complete our work.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neither Agree nor Disagree
- ☐ Agree
- ☐ Strongly Agree

My company often uses and seeks new technology to connect with customers.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neither Agree nor Disagree
- ☐ Agree
- ☐ Strongly Agree

My company often invests in online/digital security tools to protect company and customer data.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neither Agree nor Disagree
- ☐ Agree
- ☐ Strongly Agree

I am able to implement new technology solutions and programs successfully into my business operations (either myself or with assistance).

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neither Agree nor Disagree
- ☐ Agree
- ☐ Strongly Agree

I am able to use multiple methods of marketing (email, social media, phone service) to engage/support my customers.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neither Agree nor Disagree
- ☐ Agree
- ☐ Strongly Agree

Which elements of online/digital security are you currently implementing for the safety and health of your business? (Select all that apply)

- ☐ Changing passwords every 3-6 months
- ☐ Using 2-factor authentication for online/digital services
- ☐ Securely storing business documents on a cloud server
- ☐ Backing up business data and information
- ☐ Using secure online banking
- ☐ Training employees on phishing emails and cyber security
- ☐ Making sure website has an HTTPS domain
- ☐ Using anti-malware/virus software on all computers used for my business
- ☐ Using online security software or plugins to secure my website, in addition to what is provided by website provider
- ☐ Other (fill in the blank)

What is your monthly spend for your website and digital solutions? (Please give a rough estimate)

- ☐ Customer Growth (ie. Email / Digital Marketing, Search Engine Optimization, and Social Media): (fill in the blank)
- ☐ Operational Efficiency (ie. Online Production / Innovatory Management, Workforce Planning, and Supply Chain Management): (fill in the blank)
- ☐ Online/Digital Security: (fill in the blank)
- ☐ Point of Sale Solutions: (fill in the blank)
- ☐ Employee Recruitment: (fill in the blank)
- ☐ Website Design and Maintenance: (fill in the blank)
- ☐ Other: (Fill in the blank):

Total: (Generated based on responses)

## **Section 5 of 7**

(7 questions)

If my primary method of serving my customers was disrupted, I could adapt and change my means of customer delivery.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neither Agree nor Disagree
- ☐ Agree
- ☐ Strongly Agree

I frequently seek new ways and avenues of growing my business (new delivery methods, new technology, etc.).

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neither Agree nor Disagree
- ☐ Agree
- ☐ Strongly Agree

My company would be able to continue to operate if there was another lockdown today.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neither Agree nor Disagree
- ☐ Agree
- ☐ Strongly Agree

To what degree was your business affected by the pandemic and related lockdowns?

- ☐ Very negatively affected
- ☐ Negatively affected
- ☐ Unaffected
- ☐ Positively affected (e.g., experiencing growth)
- ☐ Very positively affected
- ☐ Other (Fill in the blank)

In 2020, did your business introduce new or significantly improved company processes? Select all that apply

- ☐ Methods for producing goods
- ☐ Methods for providing services
- ☐ Logistics, delivery or distribution methods
- ☐ Marketing methods for promotion, packaging, pricing, product placement or after sales services
- ☐ Information and communication systems (including hardware, software and data processing)
- ☐ Administration and management activities
- ☐ Other (please explain) (fill in the blank)
- ☐ None of the above

During the last three years, which of the following factors interfered with your business's ability to adapt to change? Select all that apply

- ☐ Lack of internal funding
- ☐ Lack of access to external funding
- ☐ Production costs too high
- ☐ Lack of skilled employees
- ☐ Difficulties in obtaining government grants or subsidies

- ☐ Uncertain market demand for your business
- ☐ Too much competition in your market
- ☐ Legislation/regulation that generated excessive burden (please explain) (fill in the blank)
- ☐ Other (please explain) (fill in the blank)

What would help make your business more resilient to changes and/or disruptions?

Please do not include any personal information in your response that can be attributed to you individually.

(Free Response)

## **Section 6 of 7**

(15 questions)

My local community has an urgent need for small businesses like mine to be successful.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neither Agree nor Disagree
- ☐ Agree
- ☐ Strongly Agree

I get constructive feedback about my business from the local community.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neither Agree nor Disagree
- ☐ Agree
- ☐ Strongly Agree

There is destructive competition within my local community.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neither Agree nor Disagree
- ☐ Agree
- ☐ Strongly Agree

In my experience, I can depend on Colorado's local and state government to be open

and upfront with me as a small business owner.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neither Agree nor Disagree
- ☐ Agree
- ☐ Strongly Agree

On important matters that impact the wellbeing of my business, I believe Colorado's local and state government have high integrity.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neither Agree nor Disagree
- ☐ Agree
- ☐ Strongly Agree

In general, I believe Colorado's local and state government motives and intentions are good toward business owners like me.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neither Agree nor Disagree
- ☐ Agree
- ☐ Strongly Agree

At the present time, I am enthusiastically pursuing my goals.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neither Agree nor Disagree
- ☐ Agree
- ☐ Strongly Agree

There are lots of ways around any problem that I am facing now.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neither Agree nor Disagree
- ☐ Agree

- ☐ Strongly Agree

Right now, I see myself as being pretty successful.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neither Agree nor Disagree
- ☐ Agree
- ☐ Strongly Agree

Among the local community with whom I work most every day, I feel there is a sense of camaraderie.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neither Agree nor Disagree
- ☐ Agree
- ☐ Strongly Agree

Among the local community I can depend on people to help me if I need them.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neither Agree nor Disagree
- ☐ Agree
- ☐ Strongly Agree

I consider the people I work with in the local community to be my friends even outside of work.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Neither Agree nor Disagree
- ☐ Agree
- ☐ Strongly Agree

To get along in the local community I have to hide aspects of my identity that are important to me.

- ☐ Strongly Disagree
- ☐ Disagree

☐ Neither Agree nor Disagree

☐ Agree

☐ Strongly Agree

Right now, I expect things to work out for the best for my business.

☐ Strongly Disagree

☐ Disagree

☐ Neither Agree nor Disagree

☐ Agree

☐ Strongly Agree

I am feeling optimistic about the future of my business.

☐ Strongly Disagree

☐ Disagree

☐ Neither Agree nor Disagree

☐ Agree

☐ Strongly Agree

## **Section 7 of 7**

(8 questions)

What is your age?

(fill in the blank)

What is the highest degree or level of school you have completed?

☐ Less than high school graduate

☐ High school graduate/GED

☐ Some years of college or technical training

☐ Associate degree

☐ Bachelor's degree

☐ Some graduate coursework

☐ Master's degree

☐ Doctoral degree

☐ Other (Fill in the blank)

How do you describe your disability/ability status?

- ☐ I do not identify with a disability or impairment
- ☐ Blind or Visually Impaired
- ☐ Deaf or Hard of Hearing
- ☐ Neurodiverse (Autism Spectrum Disorder, Dyslexia, ADHD, etc.)
- ☐ Long Term Medical (e.g., epilepsy, asthma, heart disease, diabetes)
- ☐ Mobility Impairment
- ☐ Psychological
- ☐ Temporary Impairment due to illness or injury (e.g., broken ankle, surgery)
- ☐ Disability impairment not listed (Please Specify)
- ☐ Prefer not to answer

Have you ever served on active duty in the U.S. Armed Forces (includes activation from the Reserves or National Guard)?

- ☐ Never served in the military
- ☐ Only on active duty for training in the Reserves or National Guard
- ☐ Now on active duty
- ☐ On active duty in the past, but not now
- ☐ Prefer not to answer

Which race/ethnicity categories describe you? Select all that apply to you:

- ☐ Native American, Indigenous or Alaskan Native
- ☐ Asian
- ☐ Black or African American
- ☐ Hispanic, Latinx or Spanish Origin Middle Eastern or North African
- ☐ Native Hawaiian or Other Pacific Islander
- ☐ White
- ☐ Prefer not to answer
- ☐ Another race or ethnicity not listed

What sex were you assigned at birth? (For example, on your birth certificate)

- ☐ Male
- ☐ Female
- ☐ Intersex

- ☐ Prefer not to answer

Currently, how do you identify? (Mark all that apply)

- ☐ Woman
- ☐ Man
- ☐ Transgender
- ☐ Non-binary / Non-conforming
- ☐ Prefer not to answer
- ☐ A response not listed here ( Fill in the blank)

Do you consider yourself a member of the Lesbian, Gay, Bisexual, Transgender and/or Queer (LGBTQ) community?

- ☐ Yes
- ☐ No
- ☐ No, but I identify as an Ally
- ☐ Prefer not to say

# Appendix D: Sample Scorecard

## [Insert Business Name] Scorecard Overall Resilience Index score of 100/100



### Vectors of resilience

### Survey performance

### What this means



#### Future Orientation

You set goals for your future and can find ways around barriers to success.



Your survey response indicate that your business is **below average** when it comes to **future orientation**



#### Communication Climate

You receive guidance for your business from the state government, and you trust their leadership.



Your survey response indicate that your business is **below average** when it comes to **communications climate**



#### Business & Market Alignment

Your business is embracing new technology and adapting well to environmental changes.



Your survey response indicate that your business is **above average** when it comes to **business and market alignment**



#### Community Connectivity

You feel your business belongs in the broader community and is crucial to its shared success.



Your survey response indicate that your business is **above average** when it comes to **community connectivity**



#### Operational Assets

You have strong business networks, access to skilled employees, and adequate funding.



Your survey response indicate that your business is **below average** when it comes to **business needs and operations**



#### Performance Benchmarking

Your business's overall 2020 performance, compared to others in your industry.



