

# U.S. Census Bureau Small Business Pulse Survey

*Experimental Survey to Address Data Needs During the Coronavirus  
Pandemic*



**Goldschmidt Fellowship Training  
March 2022**

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Any opinions and conclusions expressed herein are those of the author and do not represent the views of the U.S. Census Bureau. All results are from the Small Business Pulse Survey website which notes the following: *The U.S. Census Bureau reviewed this data product for unauthorized disclosure of confidential information and approved the disclosure avoidance practices applied to this release.*

# Small Business Pulse Survey Background

## Small Business Pulse Survey (SBPS)

The SBPS measures the effect of changing business conditions during the coronavirus pandemic and other major events such as hurricanes on our nation's small businesses.

## Timeline for SBPS Data Collection

April 26, 2020 - current

## Partners

Small Business Administration

Federal Reserve Board of Governors

International Trade Administration

Minority Business Development Administration

Bureau of Economic Analysis

National Telecommunications and Information Administration

Bureau of Labor Statistics

U.S. Department of Health and Human Services

# Small Business Pulse Survey (SBPS)

*high frequency data about the challenges small businesses are facing due to COVID-19*



## What's the SBPS?

A weekly survey to measure the effect of changing business conditions during the Coronavirus pandemic on our nation's small businesses. Each phase has consisted of around 20 questions taking 5 - 6 minutes to complete. Each phase, this survey reaches ~1M small businesses split across nine weeks.

## What are we collecting?

Near real time data from small business on operational challenges, vaccine requirements, supply chain impacts, and outlook and expectations.

## Collaboration Partners

SBPS content has been developed in a joint effort between internal and external stakeholders. Internal: ADEP and CES. External: MBDA, FRB, SBA, ITA, NTIA, BTS, BEA and BLS

### Phases

- Phase 1: April 2020 – June 2020
- Phase 2: August 2020 – October 2020
- Phase 3: November 2020 – January 2021
- Phase 4: February 2021 – April 2021
- Phase 5: May 2021 – July 2021
- Phase 6: August 2021 – October 2021
- Phase 7: November 2021 – January 2022
- Phase 8: February 2022 – April 2022



## Methodology and Collection

- ~1M sample representative of 5.6M small businesses
- Includes all single-location businesses with 1-499 employees and \$1000+ revenue that reported an email address. Excludes non-employers or multi-units
- Initial email on Monday asking for a response by Thursday
- Due date reminder sent Wednesday and a final notice is sent on Friday.
- The company has until the end of the phase to respond.



## SBPS Key Facts

- ✓ In March-April 2020, Small Business Pulse Survey (SBPS) went from concept to data release in 39 days.
- ✓ Is the first economic survey conducted solely by email
- ✓ Weekly data releases
- ✓ Provides national estimates as well as state, top 50 metro, and sector detail
- ✓ Uses Centurion as reporting instrument
- ✓ Response rate of ~25%



# SBPS Data Products Summary

## Highly Interactive Website

- National estimates map
- Sector estimates
- By sector, state, and MSA:
  - Survey detail bar charts
  - Scatter plot of 2 questions/answers
  - Time series by sector, state, and MSA

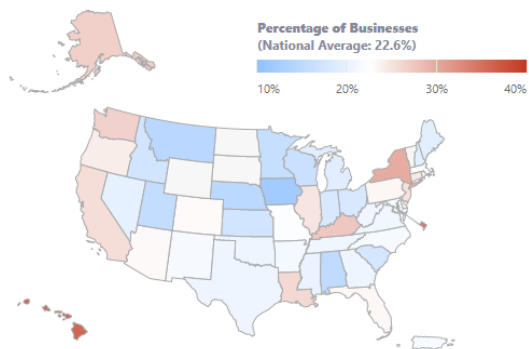
## Download Files and Documentation

- National estimates
- State estimates (includes Puerto Rico)
- Sector & Sub-sector (NAICS2, NAICS3) estimates
- MSA estimates for top 50 by population
- Employment size class (1-4, 5-19, 20+) estimates

## Responses by Geography and Sector

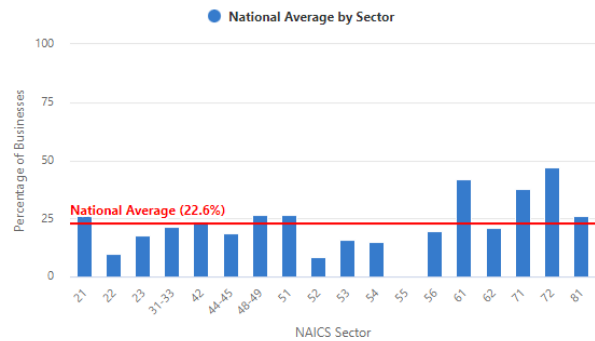
Overall, how has this business been affected by the Coronavirus pandemic?

Data Collected 11/15/2021 to 11/21/2021



Overall, how has this business been affected by the Coronavirus pandemic?

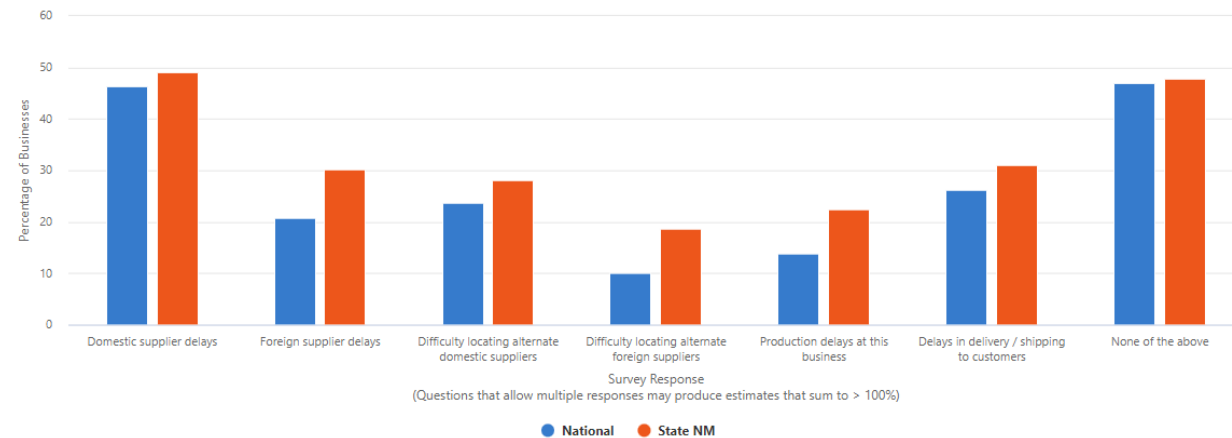
Data Collected 11/15/2021 to 11/21/2021



## Survey Response Detail

In the last week, did this business have any of the following?

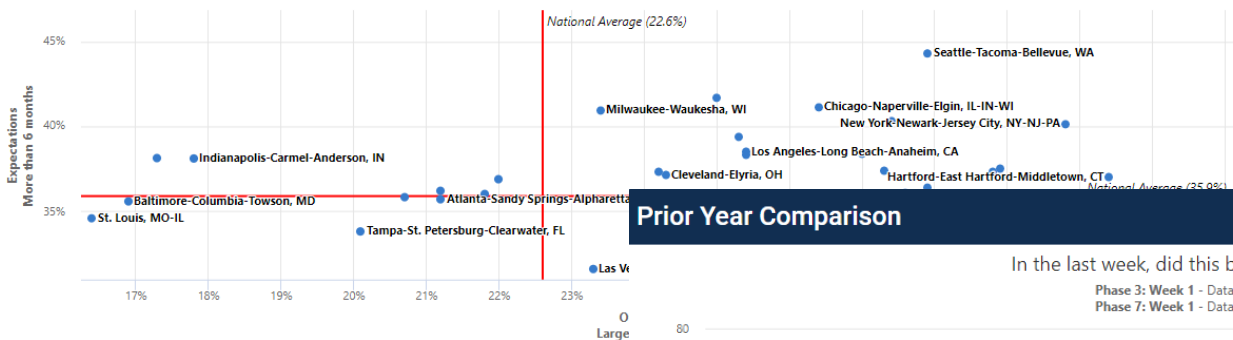
Data Collected 11/15/2021 to 11/21/2021



## Multiple Response Comparisons

Overall effect vs Expectations

Data Collected 11/15/2021 to 11/21/2021

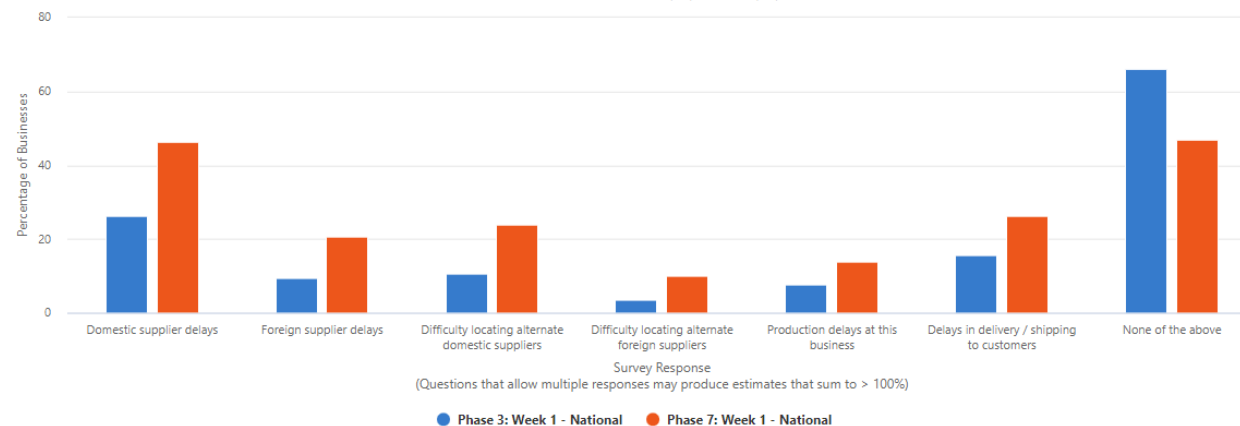


## Prior Year Comparison

In the last week, did this business have any of the following?

Phase 3: Week 1 - Data Collected 11/09/2020 to 11/15/2020

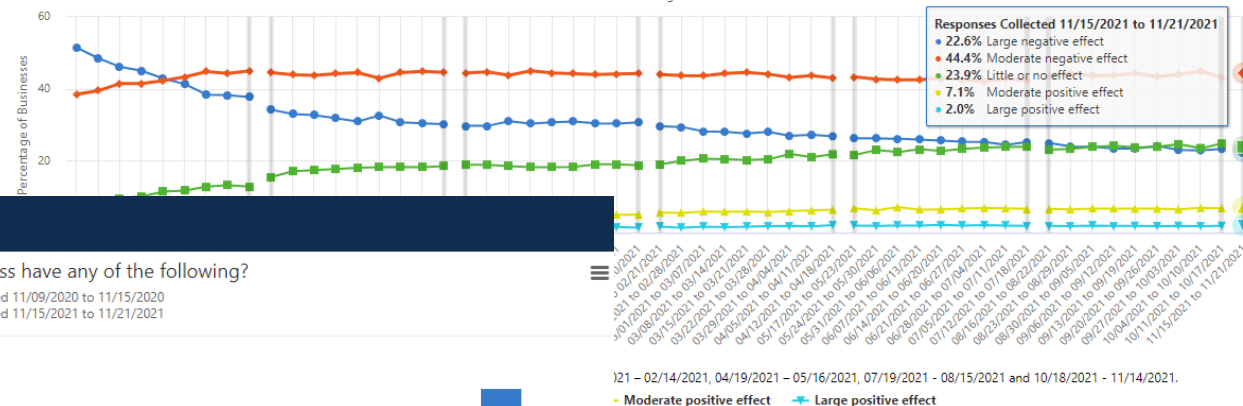
Phase 7: Week 1 - Data Collected 11/15/2021 to 11/21/2021



## Survey Responses Weekly Comparison

Overall, how has this business been affected by the Coronavirus pandemic?

National Average



## Downloads and Documentation

### Weekly Data

Select Date Range:

Filter by Interest: [All](#) [National](#) [Sector \(NAICS\)](#) [State](#) [MSA](#) [Employment Size](#) [Metrics](#)

File	File Type	Date Range	Tags
National, Sector	XLSX	01/10/2022 to 01/16/2022	<a href="#">National</a> <a href="#">Sector (NAICS)</a>
National, State	XLSX	01/10/2022 to 01/16/2022	<a href="#">National</a> <a href="#">State</a>
National, State by Sector	XLSX	01/10/2022 to 01/16/2022	<a href="#">National</a> <a href="#">State</a> <a href="#">Sector (NAICS)</a>
Top 50 MSA	XLSX	01/10/2022 to 01/16/2022	<a href="#">MSA</a>
Sub-sector (NAICS3)	XLSX	01/10/2022 to 01/16/2022	<a href="#">Sector (NAICS)</a>
National, State, Sector by Employment Size	XLSX	01/10/2022 to 01/16/2022	<a href="#">National</a> <a href="#">State</a> <a href="#">Sector (NAICS)</a> <a href="#">Employee Size</a>
Index values - National, State, Sector	XLSX	01/10/2022 to 01/16/2022	<a href="#">National</a> <a href="#">State</a> <a href="#">Sector (NAICS)</a>
Unit Response Rate	XLSX	01/10/2022 to 01/16/2022	<a href="#">Metrics</a> <a href="#">State</a>
All Files	ZIP	01/10/2022 to 01/16/2022	<a href="#">National</a> <a href="#">State</a> <a href="#">Sector (NAICS)</a> <a href="#">MSA</a> <a href="#">Employee Size</a> <a href="#">Metrics</a>

### General Info and Documentation

[EXPAND ALL](#) | [COLLAPSE ALL](#)

#### Survey Questionnaires

[SBPS Questionnaire \(11/15/2021 - 01/16/2022\)](#)  
[SBPS Questionnaire \(08/16/2021 - 10/17/2021\)](#)  
[SBPS Questionnaire \(05/17/2021 - 07/18/2021\)](#)  
[SBPS Questionnaire \(02/15/2021 - 04/18/2021\)](#)  
[SBPS Questionnaire \(11/09/2020 - 01/10/2021\)](#)  
[SBPS Questionnaire \(08/09/2020 - 10/10/2020\)](#)  
[SBPS Questionnaire \(05/17/2020 - 06/27/2020\)](#)  
[SBPS Questionnaire \(04/26/2020 - 05/16/2020\)](#)

#### User Guides

[Data Downloads](#)  
[Data Visualization](#)  
[Index construction](#)

#### Archives

# SBPS Content Overview

Overall Effect

Operations  
Metrics

COVID-19  
Testing/Vaccine

Challenges &  
Impacts

Change From  
Pre-Pandemic /  
6 Months Ago

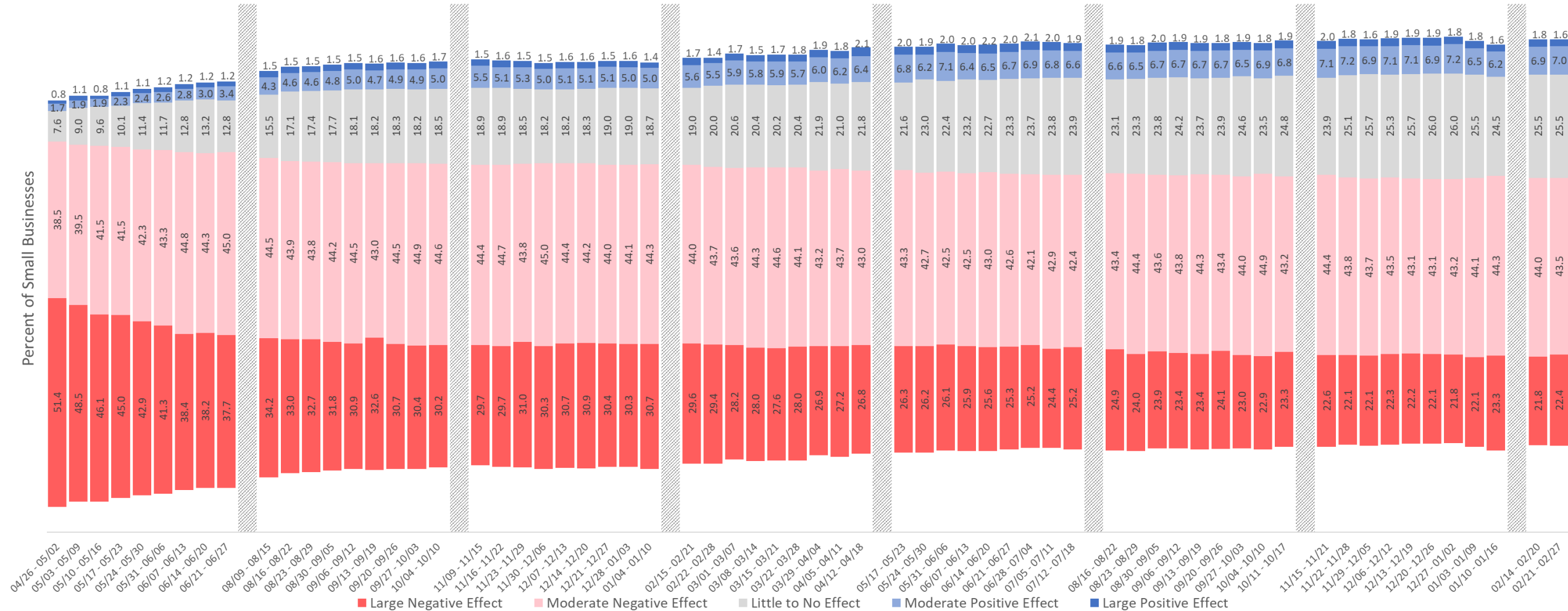
Business  
Finances

Future Outlook

# Overall Effect

Overall, how has this business been affected by the Coronavirus pandemic?

National Average

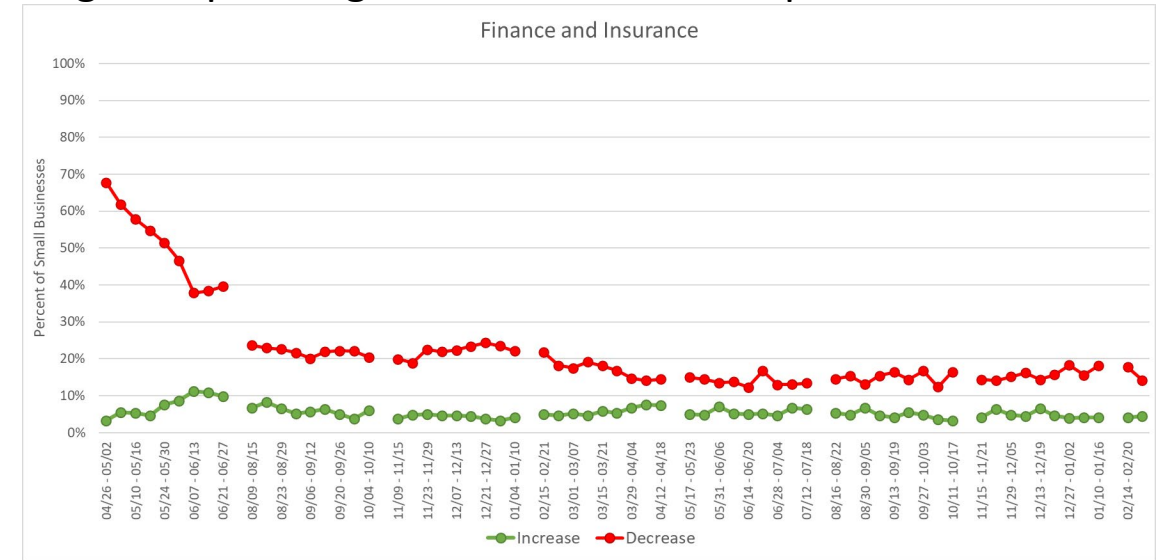
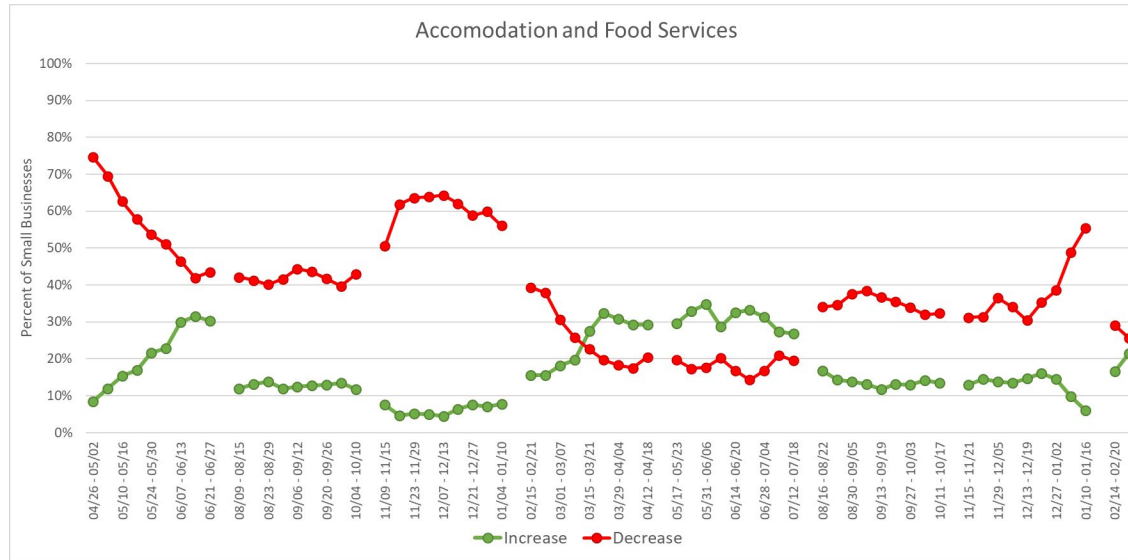


Note: Actual percentages may not sum to 100 due to rounding.

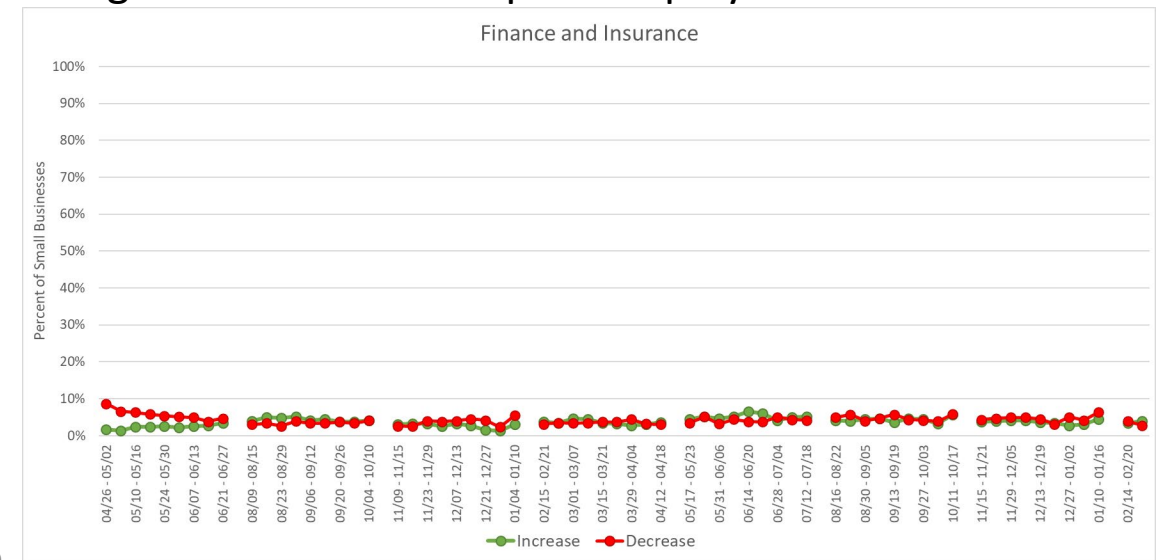
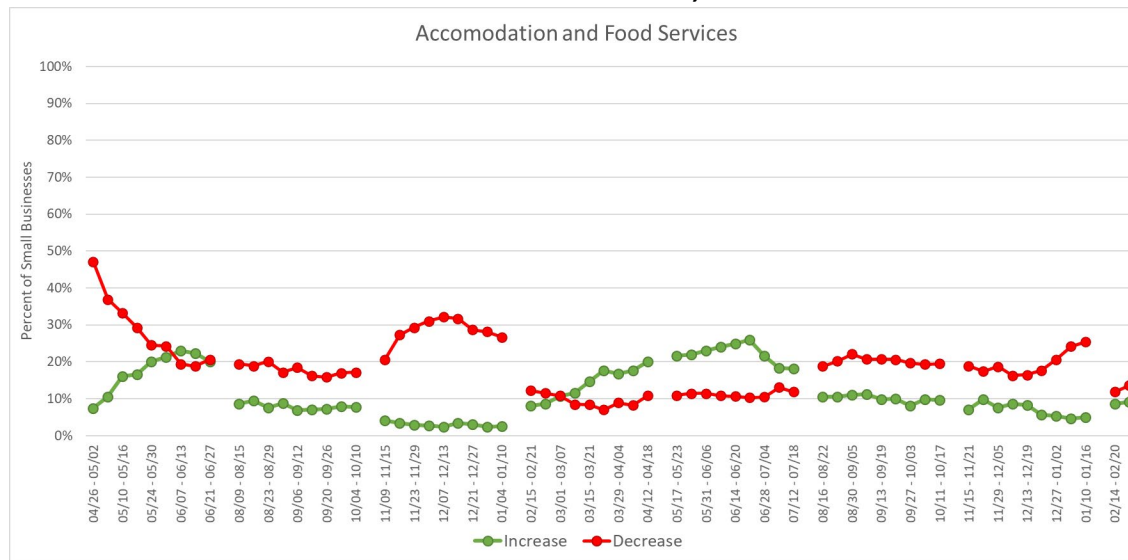


# Revenue & Employment

Q: In the last week, did this business have a change in operating revenues/sales/receipts?



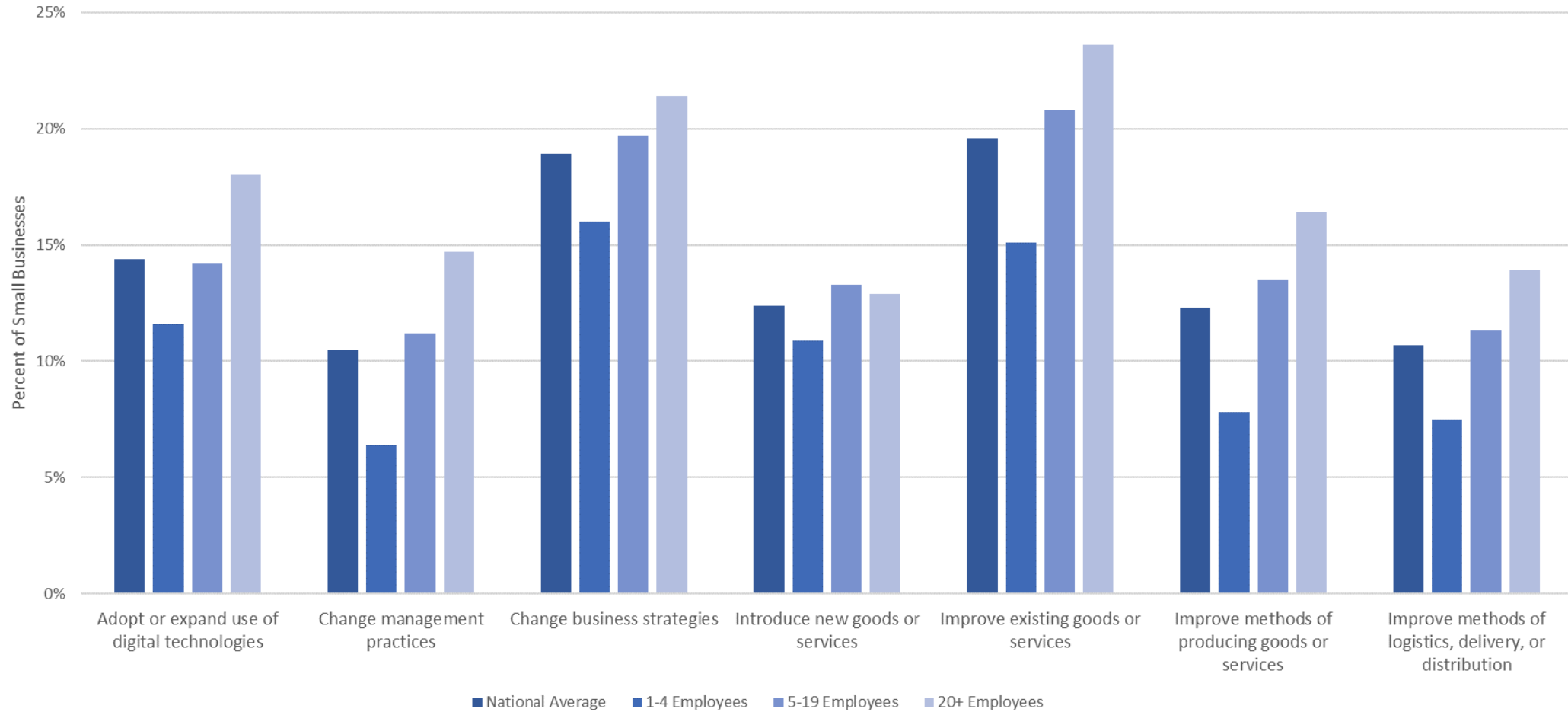
Q: In the last week, did this business have a change in the number of paid employees?



# Changes to Business Practices

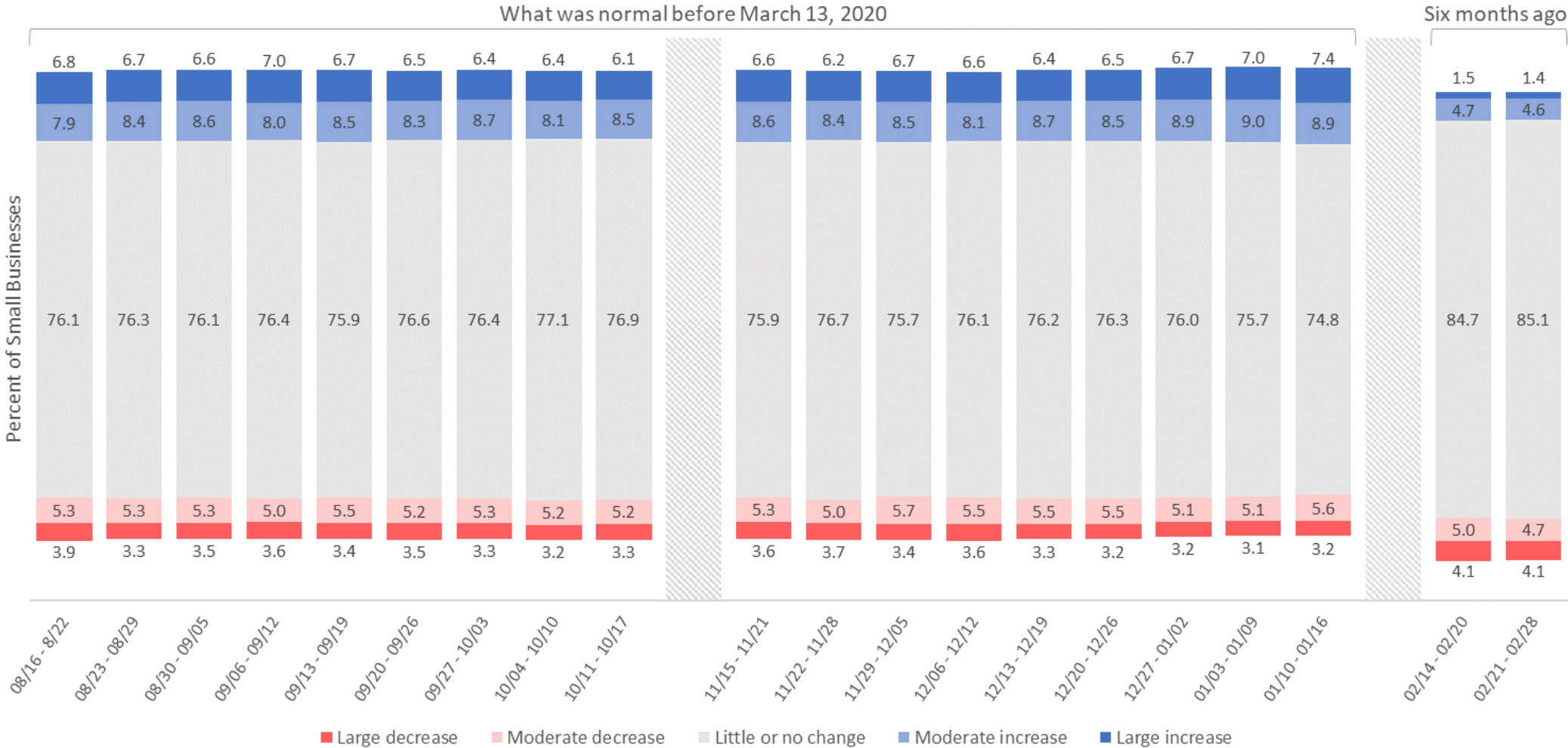
In the next six months, do you think this business will do any of the following?

(Data Collected: 02/21/2022 - 02/27/2022)



# Remote Work

How has the number of hours paid employees worked from home changed compared to...



# Survey Indexes

Used to create a numeric representation of a question or set of questions.

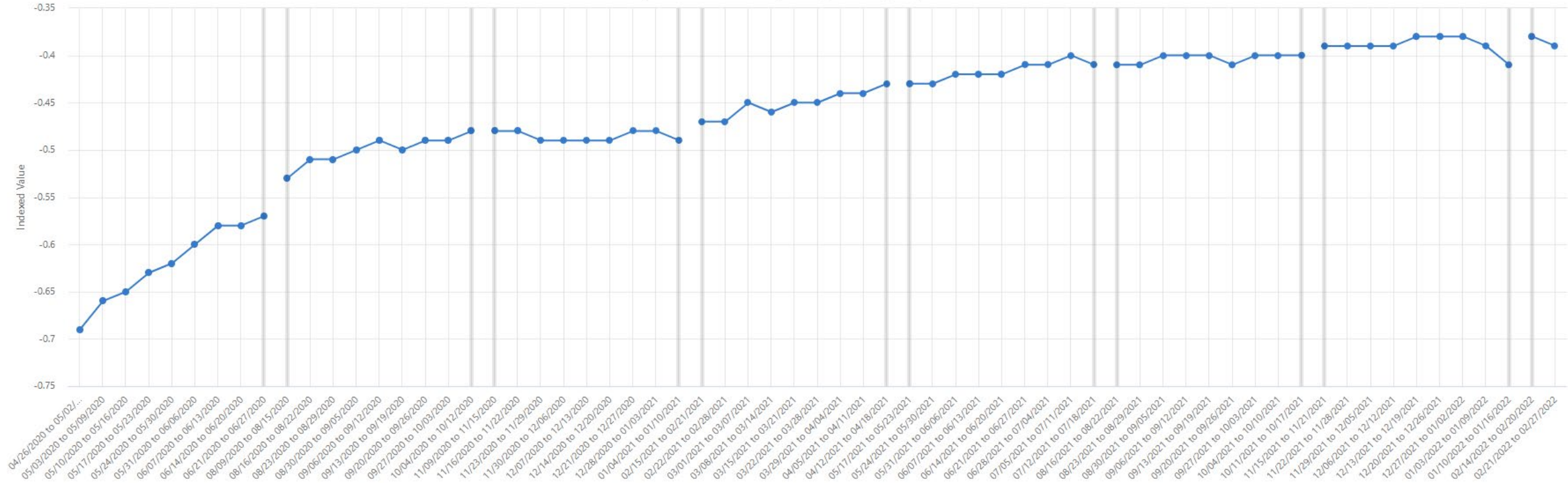
- Overall Sentiment Index (OSI) assesses the overall effect of the pandemic on businesses.
- Operational Challenges Index (OCI) assesses the overall effect of the pandemic on business operations
- Expected Recovery Index (ERI) summarizes the length of the expected recovery of businesses.

Index	Survey Question	Response Categories	Numerical Value Assigned
Overall Sentiment Index (OSI)	Q2 (Overall Impact)	Large negative effect	-1.0
		Moderate negative effect	-0.5
		Little or no effect	0.0
		Moderate positive effect	+0.5
		Large positive effect	+1.0
Operational Challenges Index (OCI)	Q4 (Revenue change)	Yes, increased	+1.0
		Yes, decreased	-1.0
		No	0.0
	Q5 (Temporary closure)	Temporary closure	-1.0
		Permanent closure	-1.0
		All other responses	0.0
	Q6 (Employment)	Yes, increased	+1.0
		Yes, decreased	-1.0
		No	0.0
	Q7 (Hours)	Yes, increased	+1.0
Yes, decreased		-1.0	
No		0.0	
Q11 (Supply chain)	Any response besides none of the above	-1.0	
	None of the above	0.0	
Expected Recovery Index (ERI)	Q21 (Expected recovery)	1 month or less	-0.2
		2-3 months	-0.4
		4-6 months	-0.6
		More than 6 months	-0.8
		I do not believe this business will return to its usual level of operations	-1.0
		There has been little or no effect on this business's usual level of operations	0.0

# Overall Sentiment - National

Overall sentiment index

Index values range from [-1,1] with -1 (+1) representing the most negative (positive) sentiment.



# Research Papers and Data Products

## Papers

CATHERINE BUFFINGTON, DANIEL CHAPMAN, EMIN DINLERSOZ, LUCIA FOSTER, JIM HUNT, AND SHAWN KLIMEK

**Small Business Pulse Survey Estimates by Owner Characteristics and Rural/Urban Designation**

[View paper here](#)

WORKING PAPER NUMBER CES-WP-21-24 AUGUST 2021

CATHERINE BUFFINGTON, DANIEL CHAPMAN, EMIN DINLERSOZ, LUCIA FOSTER, AND JOHN HALTIWANGER

**High-frequency data from the U.S. Census Bureau during the COVID-19 pandemic: small vs. new businesses**

[View paper here](#)

BUSINESS ECONOMICS VOL. 56 JULY 2021

CATHERINE BUFFINGTON, JASON FIELDS, AND LUCIA FOSTER

**Measuring the Impact of COVID-19 on Businesses and People: Lessons from the Census Bureau's Experience**

[View paper here](#)

AEA PAPERS AND PROCEEDINGS VOL. 111 MAY 2021

CATHERINE BUFFINGTON, DANIEL CHAPMAN, EMIN DINLERSOZ, LUCIA FOSTER, AND JOHN HALTIWANGER

**High Frequency Business Dynamics in the United States During the COVID-19 Pandemic**

[View paper here](#)

WORKING PAPER NUMBER CES-21-06 MARCH 2021

CATHERINE BUFFINGTON, CARRIE DENNIS, EMIN DINLERSOZ, LUCIA FOSTER, AND SHAWN KLIMEK

**Measuring the Effect of COVID-19 on U.S. Small Businesses: The Small Business Pulse Survey**

[View paper here](#)

WORKING PAPER NUMBER CES-20-16 MAY 2020

SBPS for Owner Characteristic: Sex, P1

Source: SBPS 2020, ABS2018, ABS2019

Approval #: CBDRB-FY21-291

Research Data Product

Sex	Question	Answer	Survey Week	Estimate	SE
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Female SBPS for Owner Characteristic: Race, P1

Source: SBPS 2020, ABS2018, ABS2019

Approval #: CBDRB-FY21-291

Research Data Product

Race	Question	Answer	Survey Week	Estimate	SE
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Female AIAN SBPS for Owner Characteristic: Ethnicity, P1

Source: SBPS 2020, ABS2018, ABS2019

Approval #: CBDRB-FY21-291

Research Data Product

Ethnicity	Question	Answer	Survey Week	Estimate	SE
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Female AIAN SBPS for Owner Characteristic: Veteran Status, P1

Source: SBPS 2020, ABS2018, ABS2019

Approval #: CBDRB-FY21-291

Research Data Product

Veteran Status	Question	Answer	Survey Week	Estimate	SE
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Hispanic	Veteran	1	1	45.9	2.46
Hispanic	Veteran	1	2	40.2	3.13
Hispanic	Veteran	1	3	38.1	2.86
Hispanic	Veteran	1	4	42.2	2.81
Hispanic	Veteran	1	5	40.8	2.95
Hispanic	Veteran	1	6	32.7	2.32

SBPS for Urban Businesses, Phase1

Source: SBPS 2020P1

Approval #: CBDRB-FY21-026, CBDRB-FY21-073

Research Data Product

Question	Answer	Survey Week	Estimate	SE
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1 SBPS for Rural Businesses, Phase1

Source: SBPS 2020P1

Approval #: CBDRB-FY21-026, CBDRB-FY21-073

Research Data Product

Question	Answer	Survey Week	Estimate	SE
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1	1	1	42.9	1.76
1	1	2	37.7	.90
1	1	3	36.0	1.37
1	1	4	37.9	1.45
1	1	5	35.0	1.38
1	1	6	32.0	1.20
1	1	7	29.7	.91
1	1	8	30.4	.81
1	1	9	28.5	.67
1	1	10	41.0	1.56

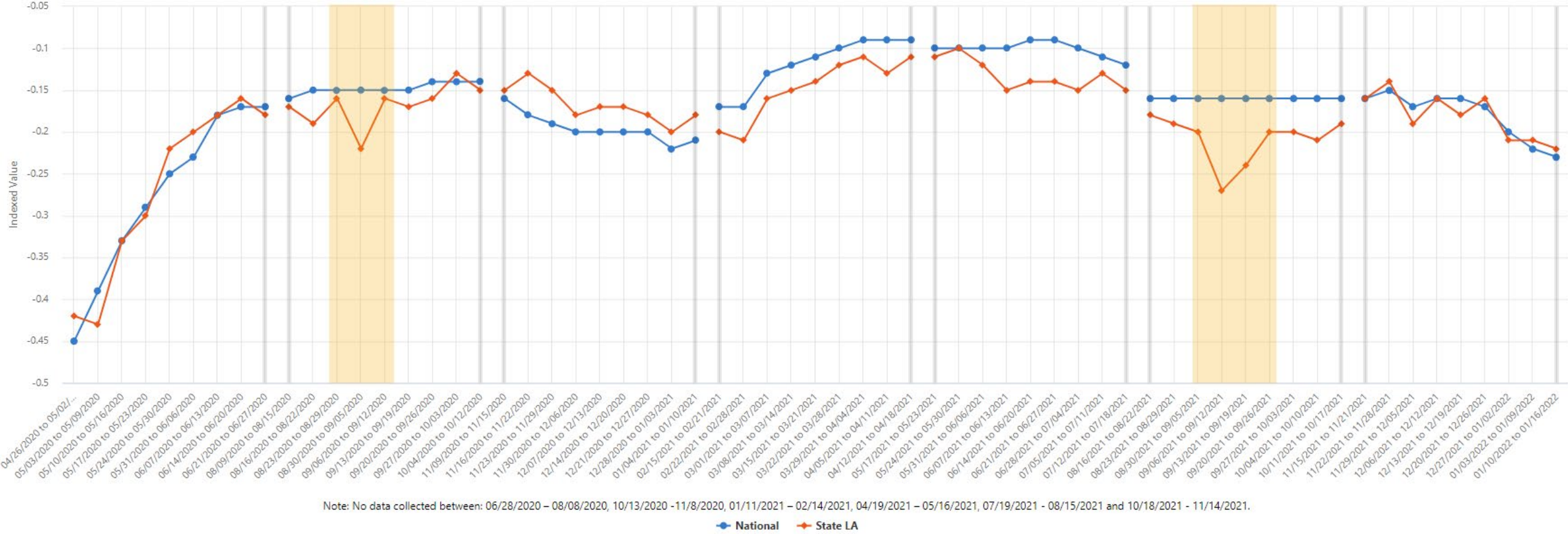
# Providing Insights Beyond COVID

Operational challenges index

Index values range from [-1,1] with -1 (+1) representing the most (least) challenges.

Laura

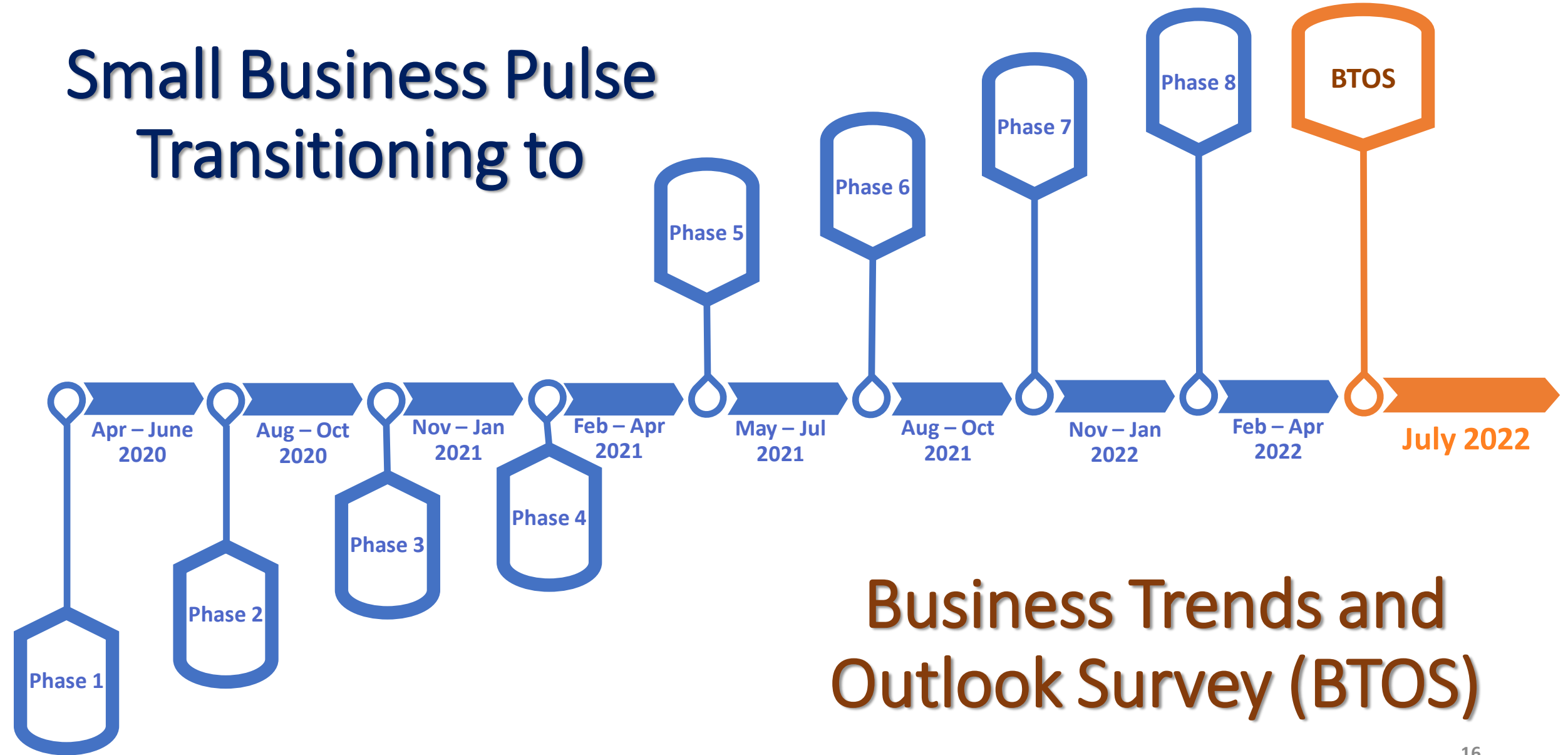
Ida



Note: No data collected between: 06/28/2020 – 08/08/2020, 10/13/2020 -11/8/2020, 01/11/2021 – 02/14/2021, 04/19/2021 – 05/16/2021, 07/19/2021 - 08/15/2021 and 10/18/2021 - 11/14/2021.

— National — State LA

# Small Business Pulse Transitioning to



## Business Trends and Outlook Survey (BTOS)



# Changes With BTOS

## Content

Pivot from COVID-19 to capturing:

- Economic baseline norms
- Unforeseen events and recovery

## Timing

Bi-weekly data collection and publications with no gaps between phases.

## Data Products

- New indexes summarizing core concepts
- Data available via API

# BTOS Content

## Reference Period

Prior two weeks

6-month outlook

## Concepts

Performance

Revenue

Temporary Closures

Employment

Hours

Hiring Difficulties

Demand

Input/Output Prices

Supply Chain Delays

E-commerce

# SBPS Links

- [Small Business Pulse Respondent Landing Page](#)
- [Small Business Pulse Data Landing Page](#)
- [Small Business Pulse Data Visualization and Downloads Page](#)
- COVID19 Data Hub Link – uses downloads data: <https://covid19.census.gov/>
  - ESRI uses data download files from data viz page (MSA, National, Sector)

# SBPS & BTOS Contacts

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