The Small Business Pulse Survey



Colin Shevlin

Economic Directorate

April 30, 2021

Disclaimer: Any views expressed are those of the author and not necessarily those of the United States Census Bureau. The Census Bureau has reviewed the data product for unauthorized disclosure of confidential information and has approved the disclosure avoidance practices applied. (Approval ID: CBDRB-FY20-357, CBDRB-FY21-313)

Goals, Timeline, and Collaboration

Goal

The Small Business Pulse Survey was designed to measure the effects of the pandemic on businesses overall as well as on aspects of their operations and finances, leveraging existing infrastructure and producing high frequency geographic and industry detail.

Timeline

Phase 1: April 26 –June 25, 2020

Phase 2: August 9 – October 10, 2020

Phase 3: November 19, 2020 – January 10, 2021

Phase 4: February 15, 2021 – April 18, 2021

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



Methodology and Collection

Sample Information

- The sample of approximately ~1 million is representative of 5.6 million small businesses.
- Includes all single-location businesses with 1-499 employees and \$1000+ revenue that reported an email address on the 2017 Economic Census.
- The same sample was used for phase 1 through phase
 4.
- Excluded from the sample are non-employers and multi-units.

Data Collection

- SBPS is the first economic survey conducted solely by email
- Each phase consists of a 9 week collection period.
- The initial email is sent on Monday asking for a response by Thursday.
- Due date reminder sent Wednesday and a final notice is sent on Friday.
- Business has until the end of the phase to respond.



Content Overview

Concept	Phase 1	Phases 2 & 3	Phase 4
Overall Effect	Overall Effect	Overall Effect	Overall Effect
	Total Revenue	Total Revenue	Total Revenue
	Revenue Change	Revenue Change	Revenue Change
	Temporary Closures	Temporary / Permanent Closures	Temporary / Permanent Closures
Operations	Change in Employees	Change in Employees	Change in Employees
Operations		Rehiring Employees	
	Change in Hours	Change in Hours	Change in Hours
		Remote Work	
		Online Platforms	
COVID			Negative COVID Test
Test/Vaccine			Proof of COVID Vaccination
	Supply Chain	Supply Chain / Other Disruptions	Supply Chain / Other Disruptions
	Shift in Production		
	Carry-out/Curbside		
Challenges		Operating Capacity Factors	Operating Capacity Factors
		Operating Capacity Change	Operating Capacity Change
			Leased Space
			Planned Capital Expenditures
	Cash on Hand	Cash on Hand	
	Missed Loans	Missed Loans	
Finance	Missed Other	Missed Other	
	Requested Assistance	Requested Assistance	Requested Assistance*
	Received Assistance	Received Assistance	Received Assistance*
			Business Travel
Outlook		Future Needs	Future Needs
	Return to Normal	Return to Normal	Return to Normal

Requested by BLS

Requested by BTS, ITA



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New Phase 4 Content

Indexes

Used to create a numeric representation of a question or set of questions that have non-numeric answers.

- The Overall Sentiment Index (OSI) assesses the overall effect of the pandemic on businesses.
- The Operational Challenges Index (OCI) assesses the overall effect of the pandemic on business operations.
- The Expected Recovery Index (ERI) summarizes the length of the expected recovery of businesses.
- The Financial Stress Index (FSI) assesses the financial difficulties experienced by businesses. (discontinued in Phase 4)

			Numerical Value
Index	Survey Question	Response Categories	Assigned
	Q1 (Overall Impact - Subjective)	Large negative effect	-1.0
Overall		Moderate negative effect	-0.5
Sentiment		Little or no effect	0.0
Index (OSI)		Moderate positive effect	+0.5
		Large positive effect	+1.0
	Q3 (revenue change)	Yes, increased	+1.0
		Yes, decreased	-1.0
		No	0.0
		Temporary closure	-1
	Q4 (Closure)	Permanent closure	-1
		All other responses	0.0
Operational	Q5 (Employment)	Yes, increased	+1.0
Challenges Index (OCI)		Yes, decreased	-1.0
index (OCI)		No	0.0
	Q6 (Hours)	Yes, increased	+1.0
		Yes, decreased	-1.0
		No	0.0
	Q9	Any response besides none	-1.0
	(Supply Chain)	None	0.0
	(Little or no impact	0
	Q18 (Expected recovery duration - subjective)	Returned to normal	0
		1 month or less	-0.2
Expected		2-3 months	-0.4
Recovery Index (ERI)		4-6 months	-0.4
		More than 6 months	-0.8
		Never	-0.8
		Permanent close	-1 -1
		Permanent close	-1

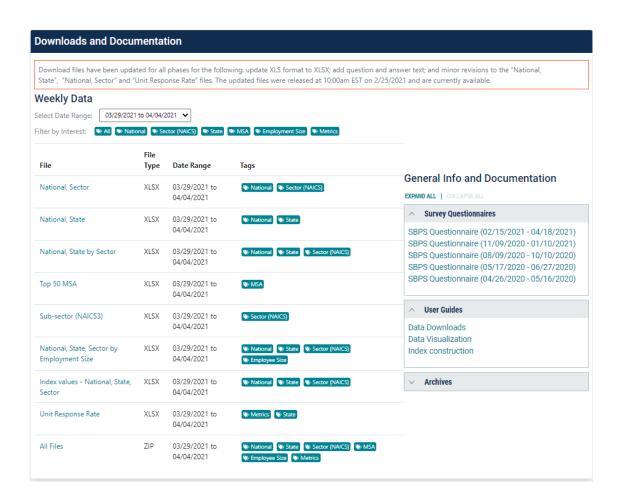


Data Products

Data is released weekly through an interactive data tool and static tables on the Thursday following survey close-out.

- Estimates available:
- National
- State (includes Puerto Rico)
- Sector & 3-Digit NAICS
- Top 50 MSA
- Employment size



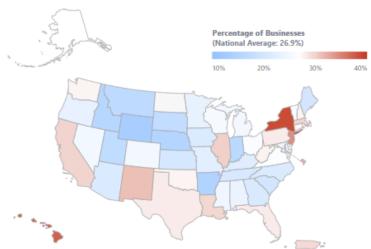


Interactive Data

Response by Geography and Sector

Collection Dates: 03/29/2021 to 04/04/2021 **~** Survey Question: Overall effect -Survey Answer: Large negative effect ▼

> Overall, how has this business been affected by the Coronavirus pandemic? Data Collected 03/29/2021 to 04/04/2021







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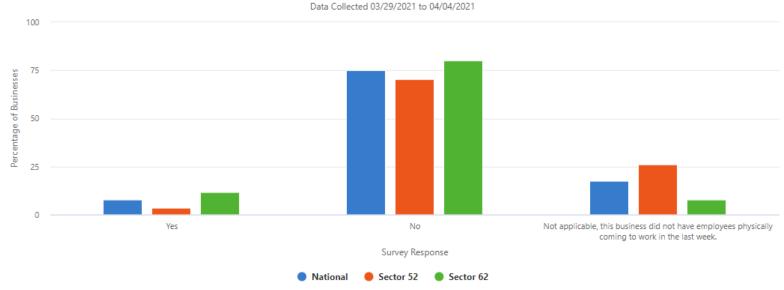
Overall, how has this business been affected by the Coronavirus pandemic? Data Collected 03/29/2021 to 04/04/2021 National Average by Sector Percentage of Businesses National Average (26.9%)

Interactive Data

Survey Response Detail



In the last week, did this business require employees to test negative for COVID-19 before physically coming to work?



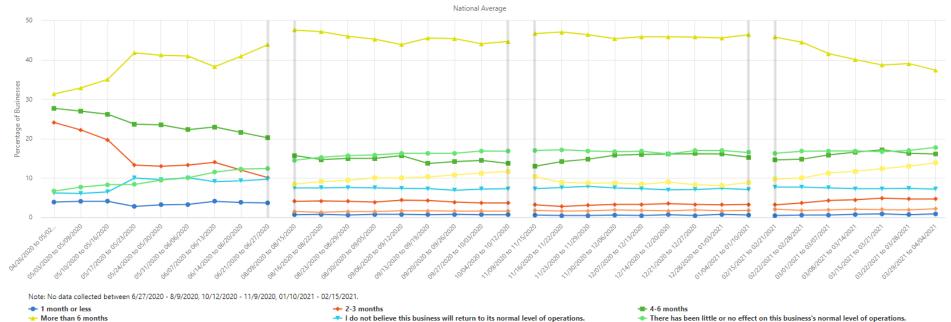


Interactive Data

This business has permanently closed. (not collected in phase 1)

Survey Response Weekly Comparison

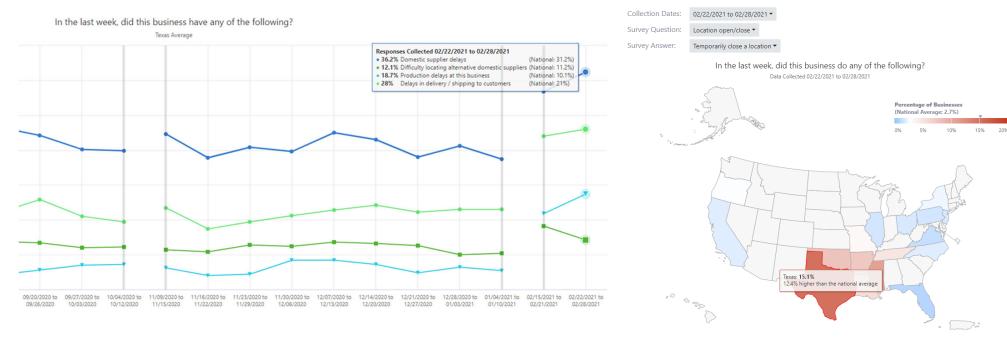






U.S. Department of Commerce Economics and Statistics Administration U.S. CENSUS BUREAU census.gov - This business has returned to its normal level of operations. (not collected in phase 1)

Providing Insights Beyond COVID



Texas Winter Storm Impact



Additional Resources

Small Business Pulse Survey Main Page: https://www.census.gov/data/experimental-data-products/small-business-pulse-survey.html

Data Tool: https://portal.census.gov/pulse/data/#data

Data Tables Main Page: https://portal.census.gov/pulse/data/#downloads

Technical Documentation: https://portal.census.gov/pulse/data/#methodology

Survey Respondent Overview: https://www.census.gov/data/experimental-data-products/small-business-pulse-survey/take-survey.html







Jason Fields

Social, Economic, and Housing Statistics Division

April 30, 2021

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 Household Pulse Survey website that 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. CBDRB-FY21-091.



The Experimental Household Pulse Survey

Development of Household Pulse Survey

- Coordinated at the Census Bureau
- Designed to deploy quickly and efficiently
- Collecting data on ways in which people's lives have been impacted by the pandemic
- Since the environment and circumstances rapidly changing, design meant to be able to quickly assess and report on critical issues, as fast as possible

Experimental Rapid Response Survey

Proof of Concept

Platform: Qualtrics

- FedRAMP Moderate authorization.
- Census Bureau Authority to Operate.
- Could be programmed in-house
- Facilitates multiple distribution modes

Email and Text Invitations to Take an Online Survey

- National Processing Center was shut down due to COVID19.
- We could not mail an invitation.
- Use a new resource that includes email addresses and cell-phone numbers and associates them with addresses

Timeline

- Development: March 23–April 23, 2020
- Phase 1: April 23-July 21, 2020
- Phase 2: August 19-October 2020
- Phase 3: October December 2020 (shift from OMB emergency clearance to regular clearance)
- Phase 3 update: January 6-March 1, 2021
- Phase 3.1 In the field April 14, 2021

Partners

Phase 1

- *Bureau of Labor Statistics
- *National Center for Health Statistics
- *Housing and Urban Development
- *National Center for Education Statistics
- *USDA Economic Research Service
- *Office of Management and Budget

Phase 2/3 Additional Agencies

- *Bureau of Transportation Statistics
- *Social Security Administration

January 2021 update Phase 3

*Centers for Disease Control

Phase 3.1 Additional Agencies

- *National Institute of Occupational Health and Safety
- *Maternal and Child Health Bureau
- *Department of Defense



Basics of the Contact Frame

Frames: Used Existing Email and Cell-Phone Contact Frames

Matched to Census Bureau's Master Address File (MAF) records.

Emails and phone numbers from respondent contacts and from third party vendors.

Phone Frame

- The phone frame contains over a billion phone/address pairs.
- The phone frame contains cell-phone/address pairs for over 79% of ACS eligible addresses in the country
- Three quarters of those phones were acquired in the past two years

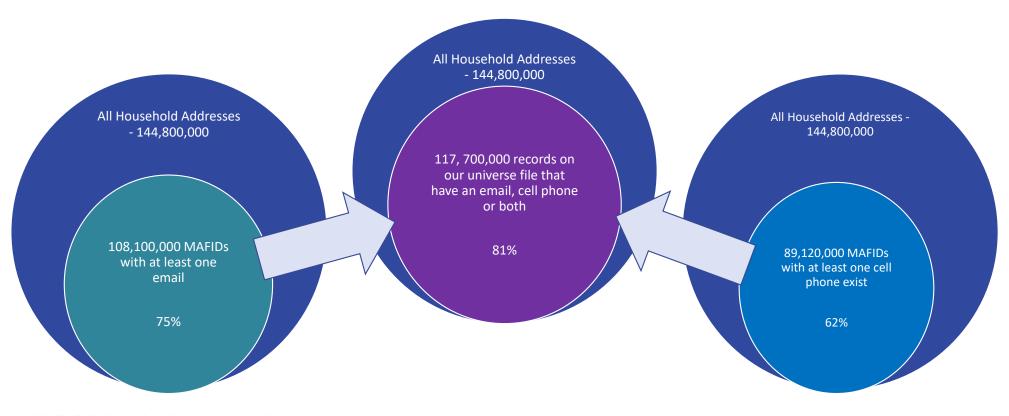
Email Frame

- The email frame contains over 686 million well-formed email/address pairs.
- The email frame contains email/address pairs for almost 74% of ACS eligible addresses in the country.
- Two thirds of those emails were acquired in past two years.

Updates to the contact frame are made multiple times per year



Frame





Responses

PHASE 1 Week	Interviews	Weighted Response Rate	PHASE 2/3 Week	Interviews	Weighted Response Rate	PHASE 3 Week	Interviews	Weighted Response Rate
April 23 – May 5 : Week 1	74,413	3.8	August 19 – August 31: Week 13	109,051	10.3	January 6 – January 18: Week 22	68,348	6.4%
May 7 – May 12 : Week 2	41,996	1.3	September 2 – September 14: Week 14	110,019	10.3	January 20 – February 1: Week 23	80,567	7.5%
May 14 – May 19 : Week 3	132,961	2.3	September 16 – September 28: Week	99,302	9.2	February 3 – February 15: Week 24	77,122	7.3%
May 21 – May 26 : Week 4	101,215	3.1	September 30 – October 12: Week 16	95,604	8.8	February 17 – March 1: Week 25	77,788	7.3%
May 28 – June 2 : Week 5	105,066	3.5	October 14 – October 26: Week 17	88,716	8.1	March 3 – March 15: Week 26	78,306	7.4%
June 4 – June 9 : Week 6	83,302	3.1	October 28 – November 9: Week 18	58,729	5.3	March 17 – March 29: Week 27	77,104	7.2%
June 11 – June 16: Week 7	73,472	2.3	November 11 – November 23: Week 19	71,939	6.6			
June 18 – June 23: Week 8	108,062	2.9	November 25 – December 7: Week 20	72,484	6.7	TOTAL 29,738,950 Sampled Units 2,388,021 Interviews		
June 25 – June 30: Week 9	98,663	3.3	December 9 – December 21: Week 21	69,944	6.5			
July 2 – July 7: Week 10	90,767	3.2						
July 9 – July 14: Week 11	91,605	3.1						



July 16 – July 21: Week 12

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2.9

86,792

Content: Phase 1, Phase 2/3, Phase 3.1

Basic demographics

Age, sex, race, Hispanic origin, marital status, educational attainment Disability status (NCHS/CDC)
Armed forces status (DOD)

Employment questions

Employment and employment income (BLS/Census)

Spending source of funds (BLS)

Series on expenditures (BLS)

Commuting and Telework series (BTS)

Transportation Questions (BTS)

Essential worker occupations (NIOSH)

Food security questions

Past and current food sufficiency (USDA-ERS)

Free meals (USDA-ERS)

Money spent on groceries and prepared foods (USDA-ERS)

SNAP receipt (USDA-ERS)

Program use

Social Security programs (SSA) Unemployment Insurance (BLS)



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Health questions

Overall health (NCHS)

Mental health and mental health services use (NCHS)

Health insurance (NCHS/Census)

Access and delays in health care (NCHS)

Vaccination receipt, intentions, and COVID diagnosis (CDC: January 2021)

Telehealth (NCHS/MCHB)

Children's preventive health care (MCHB)

Housing questions

Tenure (HUD)

Living quarters (HUD) and bedrooms (dropped in January 2021 - HUD)

Rent and mortgage current payment status (HUD) Confidence about paying rent/mortgage next month (HUD)

Eviction and foreclosure expectations (HUD)

Education questions

Effects of COVID on how K-12 children received education (NCES)

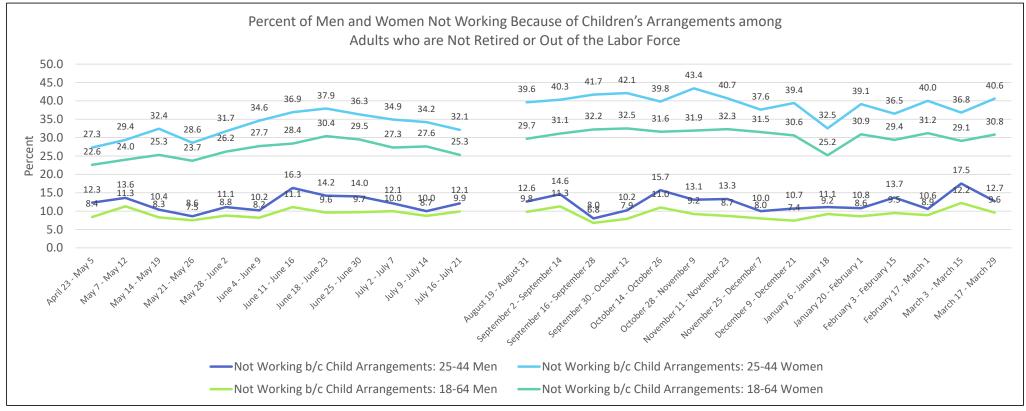
Access to computer/digital device and internet availability (NCES)

Time spent with teachers, spent on educational activities, and studying (NCES)

Post-Secondary questions (NCES)

Childcare (MCHB)

Not Working Because of Children's Arrangements



Source: Data from the Household Pulse Survey (April 23rd , 2020 – March 29th, 2021). Universe: 18+ Adults



Percentage of Adults in Households Where Someone Lost Employment Income Since March 13

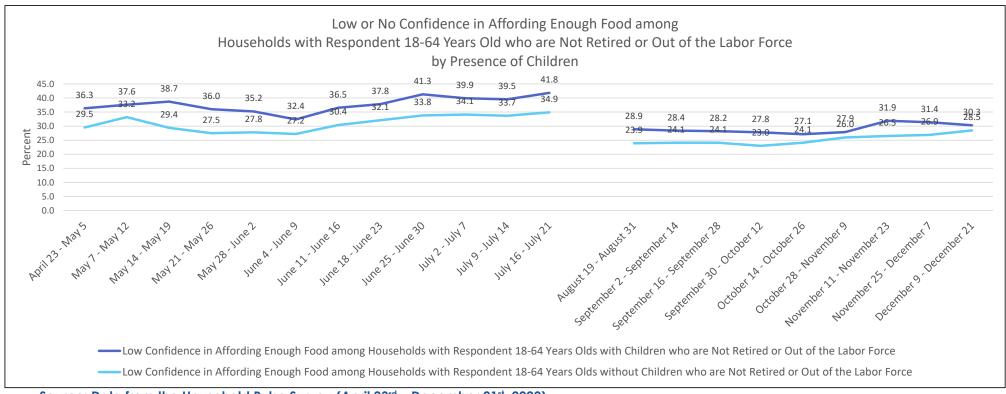
15 Largest Metros: March 17 - March 29





Source: U.S. Census Bureau, Household Pulse Survey, March 17-March 29, 2021.

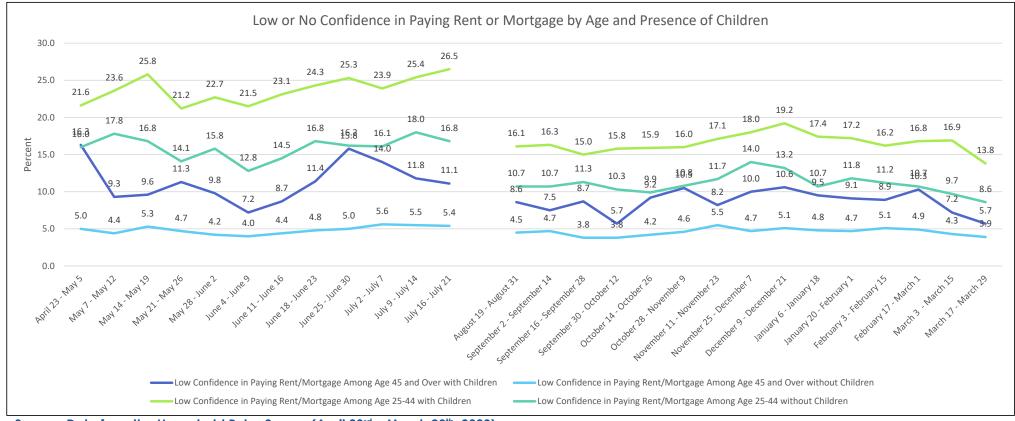
Confidence in Affording Enough Food



Source: Data from the Household Pulse Survey (April 23rd – December 21st, 2020). Universe: 18+ Adults



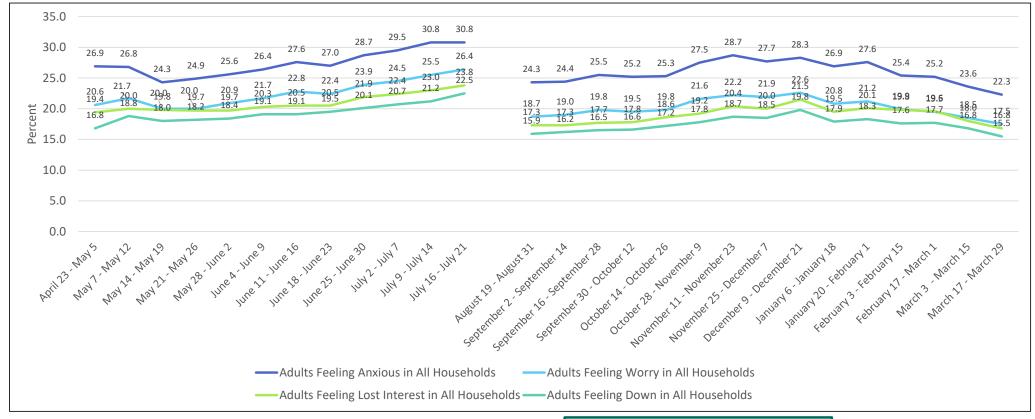
Confidence in Paying Rent or Mortgage



Source: Data from the Household Pulse Survey (April 23rd – March 29th, 2020). Universe: 18+ Adults



Mental Health Measures



Source: Data from the Household Pulse Survey (April 23rd , 2020 – March 29th, 2021). Universe: 18+ Adults

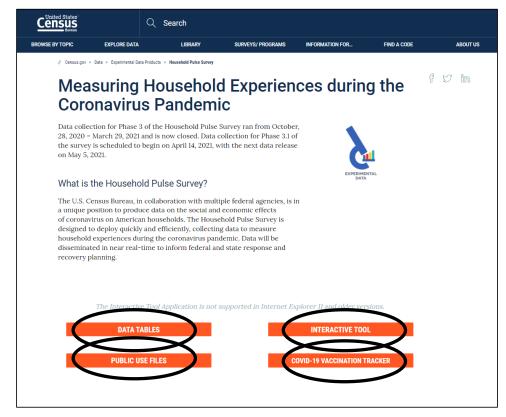


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NHIS January-June 2019:

- Anxiety Symptoms: 8.2%
- Depressive Symptoms: 6.6%

Household Pulse Survey Website



https://www.census.gov/data/experimental-data-products/household-pulse-survey.html



https://www.census.gov/library/stories.html





Adults in Households With Children Report Higher Rate of Late Housing Payments and Food Shortages Amid COVID-19

LINDSAY M. MONTE AND SHARON O'DONNELL. | JUNE 30, 202

Households with children continue to be hit harder by the financial pressures caused by the COVID-19 pandemic, according to the latest results of the U.S. Census Bureau's experimental Household Pulse Survey released last week.

BUSINESS AND ECONOMY

Is this page helpful?



Combining Census Bureau Pulse Surveys Reveals Which Workers Are Hardest Hit by COVID-19

MARK KLEE, LYNDA LAUGHLIN, AND ROBERT MUNK | JUNE 30, 2020

Self-employed workers in states where businesses are hardest hit by the COVID-19 pandemic are more likely to face economic hardships, according to new findings from the U.S. Census Bureau's experimental Household and Small Business Pulse surveys.

Creating jobs and running small businesses are just a couple of examples of the vital roles self-employed workers play in the U.S. economy.



How Are Americans Using Their Stimulus Payments?

In this name halofalo X



New Census Household Pulse Survey Shows More Households with Children Lost Income, Experienced Food Shortages During

Pandemic

LINDSAY M. MONTE | MAY 27, 2020

Adults in households with children were more likely to report permanent loss o employment and food shortages since the start of the COVID-19 pandemic, according to a new U.S. Census Bureau survey.

Early results of the experimental Household Pulse Survey released today provide a detailed and near real-time picture of how individuals and households are faring during the pandemic.



ew Census Surveys Provide ear Real-Time Info on ouseholds, Businesses During OVID-19

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Where to find the data

Household Pulse Survey main page:

https://www.census.gov/householdpulsedata

Data tool:

https://www.census.gov/data-tools/demo/hhp

Vaccine tracker:

https://www.census.gov/library/visualizations/interactive/household-pulse-survey-covid-19-vaccination-tracker.html

Data Tables main page:

https://www.census.gov/programs-surveys/household-pulse-survey/data.html

Technical Documentation:

https://www.census.gov/programs-surveys/household-pulse-survey/technical-documentation.html

Survey Respondent overview:

https://www.census.gov/programs-surveys/household-pulse-survey.html







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Business Formation Statistics (BFS)



BFS is an experimental data product that provides high frequency, timely data on early stage new business activity in the U.S. including

- Business applications as indicated by applications for an Employer Identification Number (EIN)
- Actual and projected business formations originating from business applications based on the record of first payroll tax liability for an EIN
- Delay in business formation as indicated by the average duration between business application and business formation

Types of BFS Series

BFS consists of

- 4 Business Application Series
- 8 Business Formation Series (formations are applications that become employer businesses)

BFS Publications					
Frequency	Weekly	Monthly	Annual		
Availability	Week 1, 2006-Week 16, 2021	July 2004-March 2021	2005-2019		
Series	4 Application series, not seasonally adjusted	4 Application series 8 Formation series, seasonally adjusted and not seasonally adjusted	1 Application Series		
Geography	National, Regional, State	National, Regional, State	County		
Other		National industry series			



Business Application Series

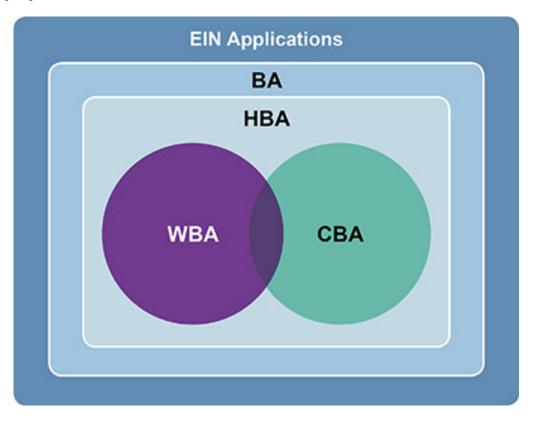
All applications for an EIN via IRS form SS-4 (starting in 2004q3) delivered weekly to Census Bureau are inputs to the BFS processing.

Several criteria applied to the entire set of EIN applications to generate various business application series

- Business Applications (BA) The core series that includes all EIN applications made in the U.S. (50 states + DC) except those filed without a business intent.
- High-Propensity Business Applications (HBA) Applications that have a relatively high likelihood of becoming employer businesses
- Business Applications with Planned Wages (WBA) a subset of HBA
- Business Applications from Corporations (CBA) a subset of HBA

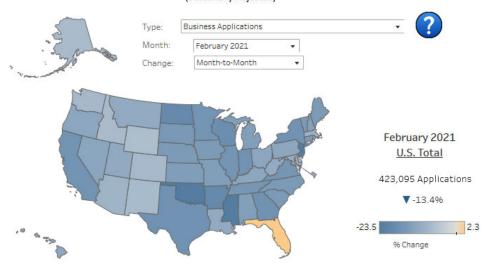


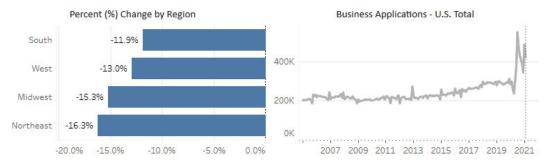
Business Application Series





Business Applications Change From January 2021 to February 2021 (Seasonally Adjusted)







Business Formation Series

Use Census Bureau's Longitudinal Business Database (LBD) to identify new employer firm (EIN) births from business applications and the timing (quarter) of these births

Business Formations within 4 Quarters (BF4Q):

Employer businesses that originate from Business Applications (BA) within a four quarter window from the time of application

Projected Business Formations within 4 Quarters (PBF4Q):

- Projected employer businesses that originate from Business Applications (BA) within a four quarter window from the time of application
- Provides estimates for the periods for which actuals are not yet available
- Estimates based on a model of employer birth indicator as a function of application characteristics

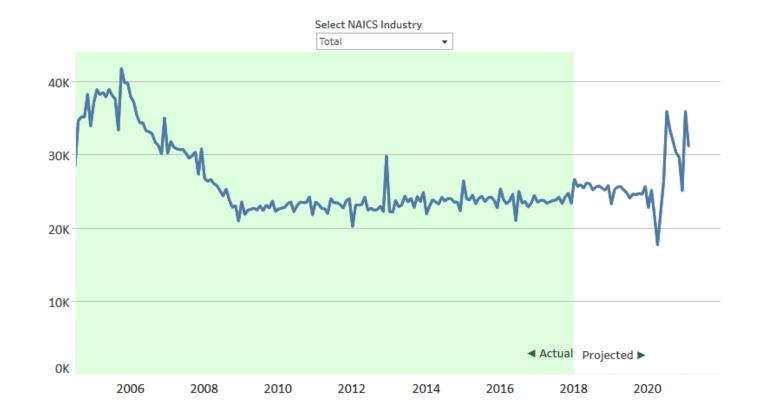
Series that piece together actual and projected formations, and series that measure average duration from application to formation (SBF4Q,DUR4Q)

All series also provided for an 8-quarter window (BF8Q, PBF8Q, SBF8Q, DUR8Q)





Monthly Total Business Formations—Actual and Projected as of February 2021 (Seasonally Adjusted)*





Question and Contact Information

Website - https://www.census.gov/econ/bfs/index.html

Email – eid.bfs@census.gov

Phone – (301) 763-2000

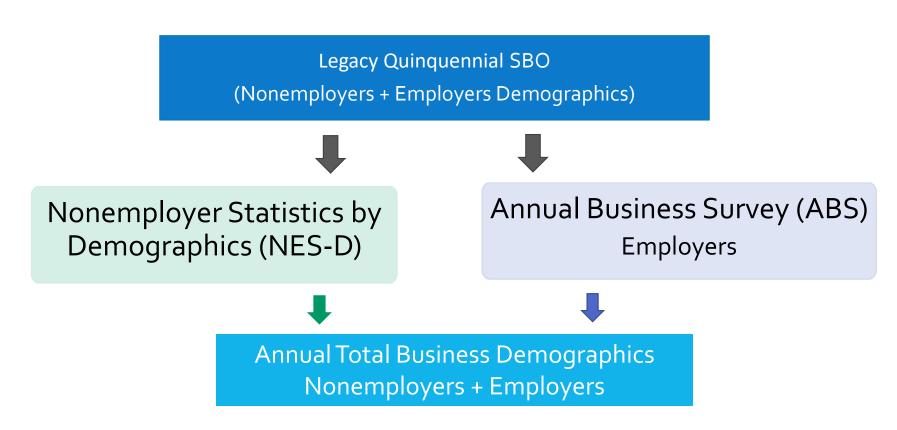


Introducing Annual Business Owners Demographics: Annual Business Survey (ABS) & Nonemployer Statistics by Demographics (NES-D)

• Aneta Erdie, Assistant Division Chief, Economic Reimbursable Surveys Division



Annualization of Business Demographics Statistics





ABS Summary

- •Annual survey providing data on business ownership by race, ethnicity, sex, and veteran status for employer businesses
- •Content: Includes statistics on the number of firms, employment, annual payroll, sales, value of shipments, or revenue
- •Detail:
 - 2- thru 6-digit NAICS (Economic Census years)
 - 2-digit NAICS (non-Economic Census years)
 - Nation, State, Metro
 - County and Place (Economic Census years)
 - Employment size of firm
 - Sales, value of shipments, or revenue size of firm
 - Characteristics of Businesses (years in business, majority of business family owned, business operation, and more)
- Coverage: Employer firms
- Frequency: Annual
- •Improvements: New content each survey year covering topics such as R&D from microbusinesses, Innovation, Finance, Technology, Management Practices
- •Sponsor: National Science Foundation's National Center for Science and Engineering Statistics



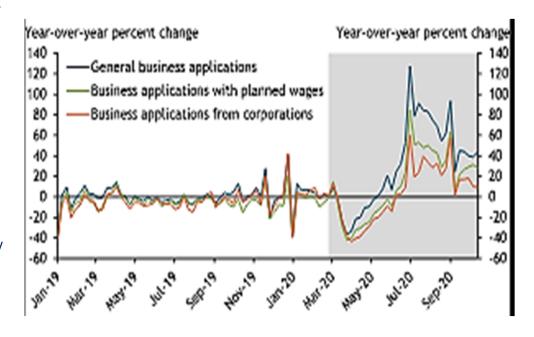
NES-D Summary

- Annual data series providing nonemployer business demographics estimates
- First official release December 17, 2020 (2017 reference year)
- •Content:
 - Counts & receipts of nonemployer businesses by race, Hispanic origin, sex and veteran status of business owners
 - Counts of nonemployer business owners by race, ethnicity, sex, veteran status, place of birth, citizenship & age
- Detail: Geography & industry detail, receipt-size class, and legal form of organization
 - Current Geo Detail: U.S., state, MSA
 - Current Industry Detail: All sectors, 2 and 3-digit NAICS
- Coverage: Nonemployer universe*
- •Data sources: Leverages existing administrative records (AR) and Census data (i.e., IRS tax data, Decennial Census, American Community Survey, Business Register, SSA Numident, AR from DVA) -- Not a survey
- Frequency: Annual
- •Improvements: No additional respondent burden, more frequent, more timely, lower imputation rates and costs than predecessor (quinquennial Survey of Business Owners)



Nonemployers Basics

- •Nonemployers: businesses w/ no paid employment, subject to federal income taxes, & w/ annual receipts of \$1,000 or more (\$1 or more for Construction sector)
- •As of 2017, there were approximately 26 million nonemployers accounting for about 83 percent of all businesses but only about 3 percent of receipts
 - Approximately 87 percent of nonemployers are sole proprietors (i.e., businesses with only 1 owner, usually thought-of as self-employed persons)
- Nonemployer growth outpacing that of employers
 - From 2014 to 2018, number of nonemployers grew by approximately 11 percent and employer firms by approximately 3.5 percent
- Unprecedented increase in business applications during pandemic (see graph) – will they become nonemployer businesses?

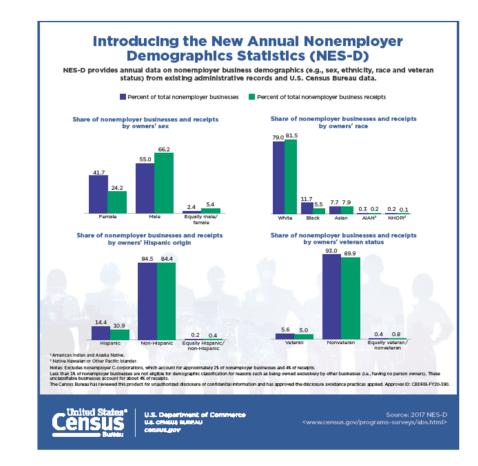


Sources: Business Formation Statistics, U.S. Census Bureau.



2017 Nonemployers Results

- •Approximately 10.6 million nonemployer firms (42%) were female-owned, accounting for about \$286.1 billion (24%) in receipts
- About 8.2 million nonemployer firms (32%) were minority-owned, accounting for around \$279.3 billion (23%) in receipts
- About 3.6 million nonemployer firms (14%) were Hispanic-owned, with nearly \$129.6 billion (11%) in receipts
- •Approximately 1.4 million nonemployer firms (5.6%) were veteran-owned, with \$59.3 billion (5%) in receipts





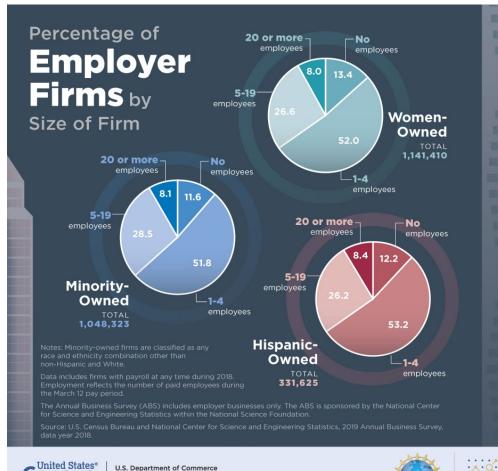
Employers Results

2019 ABS (reference year 2018)

- •5.7 million employer firms in 2018 with \$38.4 trillion in receipts
- •18.3% (1.0 million) of all businesses were minority-owned
- •19.9% (1.1 million) of all businesses were owned by women
- •Hispanic-owned businesses made up about 5.8% (331,625) of all businesses
- Veteran-owned businesses made up about 5.9% (337,934) of all businesses



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Next Steps

- •Total business demographics: Release combined nonemployer + employer demographics -- NES-D is part of total business demographics
- •Increase level of detail for nonemployers:
 - Geo detail: Potentially down to county level in future releases as disclosure-avoidance rules allow
 - •Industry detail: Potentially down to 6-digit NAICS in future releases as disclosure-avoidance rules allow
- •Shorten dissemination lag from 3 to 2 years for nonemployers
- Additional characteristics for nonemployers, including:
 - Household (e.g., marital status)
 - •Related to gig-economy (e.g., does nonemployer also work for a wage? Does nonemployer use contractors?)
 - Transitions to employer status
 - Firm age, patenting activity, exporter/importer status



ABS and NES-D tables are available at:

https://www.census.gov/programs-surveys/abs/data.html

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