# SMALL BUSINESS CREDIT SURVEY

## 2021 REPORT ON EMPLOYER FIRMS


FEDERAL RESERVE BANKS *of*

Atlanta • Boston • Chicago • Cleveland • Dallas • Kansas City • Minneapolis
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# ACKNOWLEDGMENTS

The Small Business Credit Survey is made possible through collaboration with business and civic organizations in communities across the United States. The Federal Reserve Banks thank the national, regional, and community partners who share valuable insights about small business financing needs and collaborate with us to promote and distribute the survey.[1] We also thank the National Opinion Research Center (NORC) at the University of Chicago for assistance with weighting the survey data to be statistically representative of the nation's small business population.[2]

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This report is the result of the collaborative effort, input, and analysis of the following teams:

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We thank all of the above for their contributions to this successful national effort.

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*The views expressed in the following pages are those of the report team and do not necessarily represent the views of the Federal Reserve System.*

1 *For a full list of community partners, please visit www.fedsmallbusiness.org.*
2 *For complete information about the survey methodology, please see Methodology.*
3 *Joseph Firschein, Board of Governors of the Federal Reserve System; Karen Leone de Nie, Federal Reserve Bank of Atlanta; Prabal Chakrabarti, Federal Reserve Bank of Boston; Daniel Sullivan, Federal Reserve Bank of Chicago; Emily Garr Pacetti, Federal Reserve Bank of Cleveland; Roy Lopez, Federal Reserve Bank of Dallas; Tammy Edwards, Federal Reserve Bank of Kansas City; Alene Tchourumoff, Federal Reserve Bank of Minneapolis; Tony Davis, Federal Reserve Bank of New York; Theresa Singleton, Federal Reserve Bank of Philadelphia; Christy Cleare, Federal Reserve Bank of Richmond; Daniel Davis, Federal Reserve Bank of St. Louis; and Laura Choi, Federal Reserve Bank of San Francisco.*
4 *The Report and Survey Team appreciates the thoughtful comments, managerial support, and guidance from the following colleagues: Lisa Nelson from the Federal Reserve Bank of Cleveland; Brent Meyer, Veronika Penciakova, Nick Parker, and Kevin Foster from the Federal Reserve Bank of Atlanta; and Barbara Lipman and Marysol Weindorf from the Board of Governors of the Federal Reserve System. Valuable assistance with this publication was provided by Heather Ann from the Federal Reserve Bank of Cleveland.*

# EXECUTIVE SUMMARY

The Small Business Credit Survey (SBCS), a collaboration of all 12 Federal Reserve Banks, provides timely information about small business conditions to policymakers, service providers, and lenders. In 2020, the survey reached more than 15,000 small businesses,[5] gathering insights about the COVID-19 pandemic's impact on small businesses, as well as business performance and credit conditions.

The survey was fielded in September and October 2020, approximately six months after the onset of the pandemic. The timing of the survey is important to the interpretation of the results. At the time of the survey, the Paycheck Protection Program (PPP) authorized by the CARES Act had recently closed, and prospects for additional stimulus funding were uncertain. Additionally, many government-mandated business closures had been lifted as the number of new COVID-19 cases plateaued in advance of a significant increase in cases by the year's end.[6]

The 2020 survey findings highlight the magnitude of the pandemic's impact on small businesses and the challenges they anticipate as they navigate changes in the business environment. The 2020 SBCS finds that few firms avoided the negative impacts of the pandemic. Furthermore, the findings reveal disparities in experiences and outcomes across firm and owner demographics, including race and ethnicity, industry, and firm size. While this report aggregates data on all small employer firms, it includes some details for select demographics. Future publications will explore the impact of the pandemic on different subsets of businesses.

## SURVEY FINDINGS

The 2020 SBCS yielded 9,693 responses from a nationwide convenience sample of small employer firms with 1–499 full- or part-time employees (hereafter "firms") across all 50 states and the District of Columbia. This publication summarizes data for firms that were currently operating or temporarily closed at the time of survey and does not include permanently closed businesses.

**Firms' financial conditions declined sharply between 2019 and 2020.[7] Firms owned by people of color reported greater challenges.**

- Most firms reported declines in revenues and employment in the 12 months prior to the survey. Seventy-eight percent of firms reported decreases in revenues, and 46% reduced their workforce.
- Fifty-seven percent of firms characterized their financial condition as "fair" or "poor." This figure jumps to 79% for Asian-owned firms and 77% for Black-owned firms.
- The share of firms that experienced financial challenges in the prior 12 months rose from 66% to 80% between 2019 and 2020. In response to those challenges, firms most commonly used personal funds (62%) or cut staff hours/downsized operations (55%).
- Seventy-nine percent of firms had debt outstanding, an increase from 71% in 2019. The amount of debt firms hold also increased; the share of firms with more than $100,000 in debt rose from 31% in 2019 to 44% in 2020.

**The COVID-19 pandemic has had wide-reaching effects on small business operations.**

- The vast majority of firms (95%) reported that the pandemic impacted their business. For example, 26% closed temporarily, 56% reduced their operations, and 48% modified their operations.
- Of those that faced disruptions to operations, firms most commonly cited changes in demand (58%), government mandates (55%), or the need to adapt to health and safety guidelines (52%) as reasons their businesses were affected.
- Fifty-three percent of firms expected total sales revenues for 2020 to be down by more than 25% because of the pandemic.

**More than 90% of firms sought emergency funding to weather the financial impacts of the pandemic.**

- Ninety-one percent of firms applied for some type of emergency funding during the pandemic. The PPP was the most commonly used program; 82% of employer firms applied. Seventy-seven percent of PPP applicants received all of the funding they sought.
- Firms that sought PPP funds most frequently submitted their applications through small (48%) and large (43%) banks. Of firms that applied through large banks, 95% had an existing relationship with their bank prior to applying for a PPP loan. Eighty-three percent of small bank applicants had an existing relationship.

5 *The Small Business Credit Survey collects information from both employer and nonemployer firms. The 2020 survey yielded 4,531 responses from nonemployers; the findings for nonemployers will be explored in a separate report. Additionally, the survey yielded approximately 1,000 responses from permanently closed firms and new businesses that had not yet begun operations.*

6 *Johns Hopkins Coronavirus Resource Center, https://coronavirus.jhu.edu/data/new-cases.*

7 *In this summary, the years specified in year-over-year comparisons refer to the year in which the survey was fielded. Some survey questions pertain to the prior 12 months, which include the final months of the preceding year.*

# EXECUTIVE SUMMARY
(Continued)

- Access to PPP funds bolstered firms' ability to retain or rehire employees. Forty-six percent of firms that received all of the PPP funding they sought reduced the number of employees on their payroll, compared to 71% percent of firms that received none of the PPP funding for which they applied. In addition, PPP recipients were more likely to rehire employees they laid off.
- Sixty-four percent of firms would apply for additional government-provided assistance if it were made available. Of these firms, 39% expected they would be unlikely to survive until sales return to "normal" (that is, 2019 levels) without further government assistance.

**At the time of the survey, most firms expected sales pressures and pandemic-related challenges to persist.**

- Firms anticipate a challenging year ahead. Firms were more likely to expect a decrease in revenues in the next 12 months as opposed to an increase. Furthermore, respondents were less likely than in previous years to expect an increase in employment. The net share of firms expecting employment growth in 2020 was 14%, compared to 38% in 2019.
- Eighty-eight percent of firms indicated that sales had not yet returned to normal. Of those firms, 30% projected it would be unlikely that they could survive until sales recover without additional government assistance.
- Thirty-seven percent of firms expect that the most important challenge stemming from the pandemic in the next 12 months will be weak demand, followed by government-mandated restrictions or closures (26%) and credit availability (13%).
- The most important anticipated challenge differed by race and ethnicity of the owners. For Black-owned firms, credit availability was the top expected challenge, while Asian-owned firms disproportionately cited weak demand.

**Applications for non-emergency financing decreased from 2019 to 2020.**

- The share of firms that applied for financing declined from 43% in 2019 to 37% in 2020.[8]
- Compared to 2019, firms were considerably more likely to seek financing in order to meet operating expenses (58% versus 43% in 2019) and less likely to seek funds for expansion (38% versus 56% in 2019).
- The share of applicant firms that received all the financing they sought declined from 51% in 2019 to 37% in 2020.

**Approval rates on loans, lines of credit, and cash advances declined in 2020.**

- The share of applicant firms that were at least partially approved for loans, lines of credit, and cash advances declined from 83% in 2019 to 76% in 2020.
- Following the start of the pandemic, firms were less successful at obtaining loans, lines of credits, and cash advances. Prior to March 1, 2020, 81% of applicants were approved for at least some of the funds they sought. After March 1, only 70% were at least partially approved.

**Banks remain the most common source of credit for small businesses; use of online lenders declined.**

- Forty-two percent of firms that applied for a loan, line of credit, or cash advance sought this funding from a large bank, similar to the share that applied at a large bank in 2019 (40%). Forty-three percent turned to a small bank, up from 36% in 2019. In contrast, the share of firms that applied to an online lender fell from 33% in 2019 to 20% in 2020.
- Firms with lower credit scores turned to online lenders (35%) and nonbank finance companies (23%) much more often than did their counterparts with higher credit scores (11% and 11%, respectively).
- Among applicant firms that were approved for at least some financing, net satisfaction was highest for credit unions (81%), followed by small banks (74%) and large banks (60%). Online lender applicants were least satisfied, as net satisfaction with online lenders declined from 37% in 2019 to 25% in 2020.

## ABOUT THE SURVEY

The SBCS is an annual survey of firms with fewer than 500 employees. These types of firms represent 99.7% of all employer establishments in the United States.[9] Respondents are asked to report information about their business performance, financing needs and choices, and borrowing experiences. Responses to the SBCS provide insights on the dynamics behind lending trends and shed light on various segments of the small business population. The SBCS is not a random sample; results should be analyzed with awareness of potential biases that are associated with convenience samples. For detailed information about the survey design and weighting methodology, please consult the Methodology section.

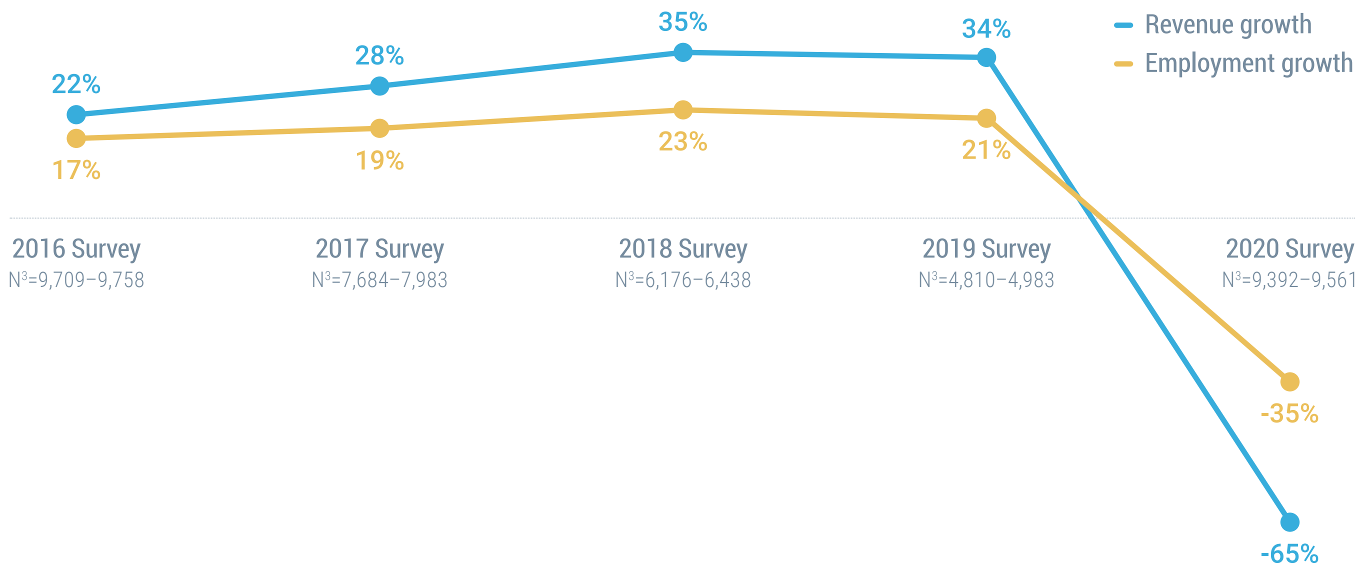
8 *The share of firms that applied for financing in 2020 excludes firms that applied only for emergency funding, such as PPP.*
9 *US Census Bureau, 2018 County Business Patterns.*

## PERFORMANCE & CHALLENGES

### Revenue and Employment Change, Prior 12 Months

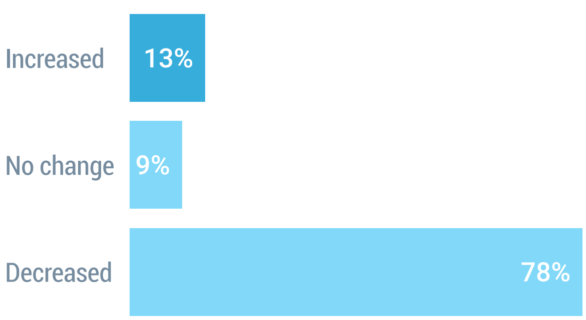
**For the first time in the five years the SBCS has been conducted nationally, more firms experienced decreases in revenues and employment than increases.**

**EMPLOYER FIRM PERFORMANCE INDEX,** *Prior 12 Months*[1,2] (% of employer firms)

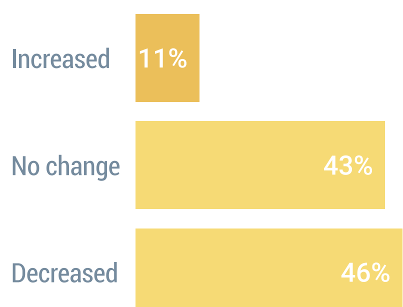



**EMPLOYER FIRM PERFORMANCE,** *2020 Survey* (% of employer firms)

**REVENUE CHANGE,** *Prior 12 Months*[4,5] N=9,561




**EMPLOYMENT CHANGE,** *Prior 12 Months*[4,5] N=9,392




1 *The index is the share reporting growth minus the share reporting a reduction.*
2 *Approximately the second half of the prior year through the second half of the surveyed year.*
3 *Questions were asked separately, thus the number of observations may differ slightly between questions.*
4 *Percentages may not sum to 100 due to rounding.*
5 *Approximately the second half of 2019 through the second half of 2020.*

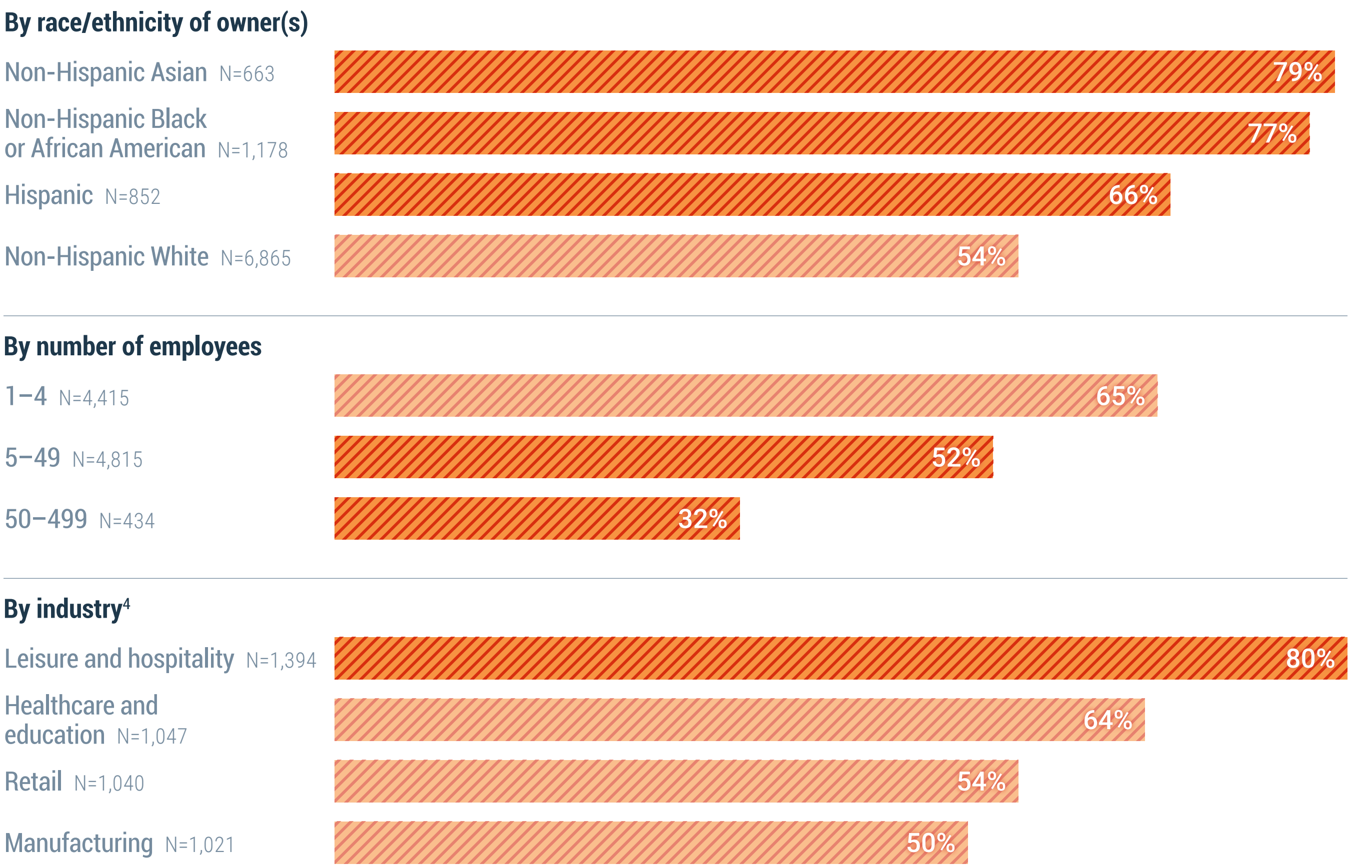
# PERFORMANCE & CHALLENGES
## Financial Condition

### 57% of firms reported that their financial condition was fair or poor.

**FINANCIAL CONDITION,** *At Time of Survey*[1] (% of employer firms)


### Firms owned by people of color, smaller firms, and leisure and hospitality firms were in weaker financial condition.

**SHARE OF FIRMS IN FAIR OR POOR FINANCIAL CONDITION,** *At Time of Survey*[2,3] (% of employer firms)

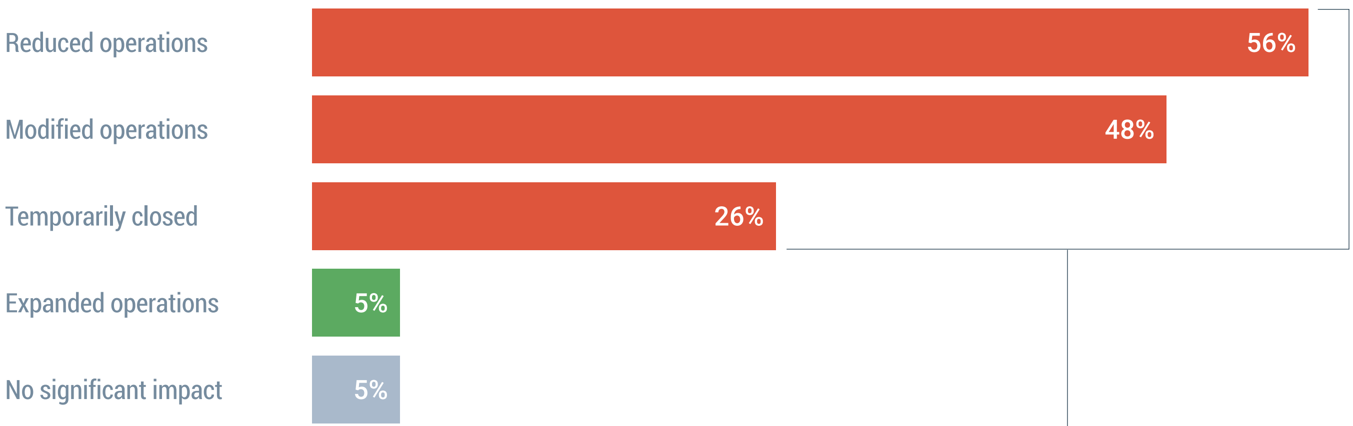



1 *Percentages may not sum to 100 due to rounding.*
2 *The characteristics shown in darker bars are related to self-reported financial condition at a significance level of 0.05 using a logistic regression. For the demographics shown, the reference groups are Non-Hispanic White-owned firms, firms with 1-4 employees, and firms in the non-manufacturing goods production and associated services industry (54%, not shown).*
3 *Additional variables were tested for statistical significance, including credit risk, gender of owner(s), revenues, and age of firm. Along with the variables shown in the figure, the gender of the owner(s), self-reported credit risk of the firm, and the firm's age are also related to financial condition at a significance level of 0.05.*
4 *Select industries shown.*

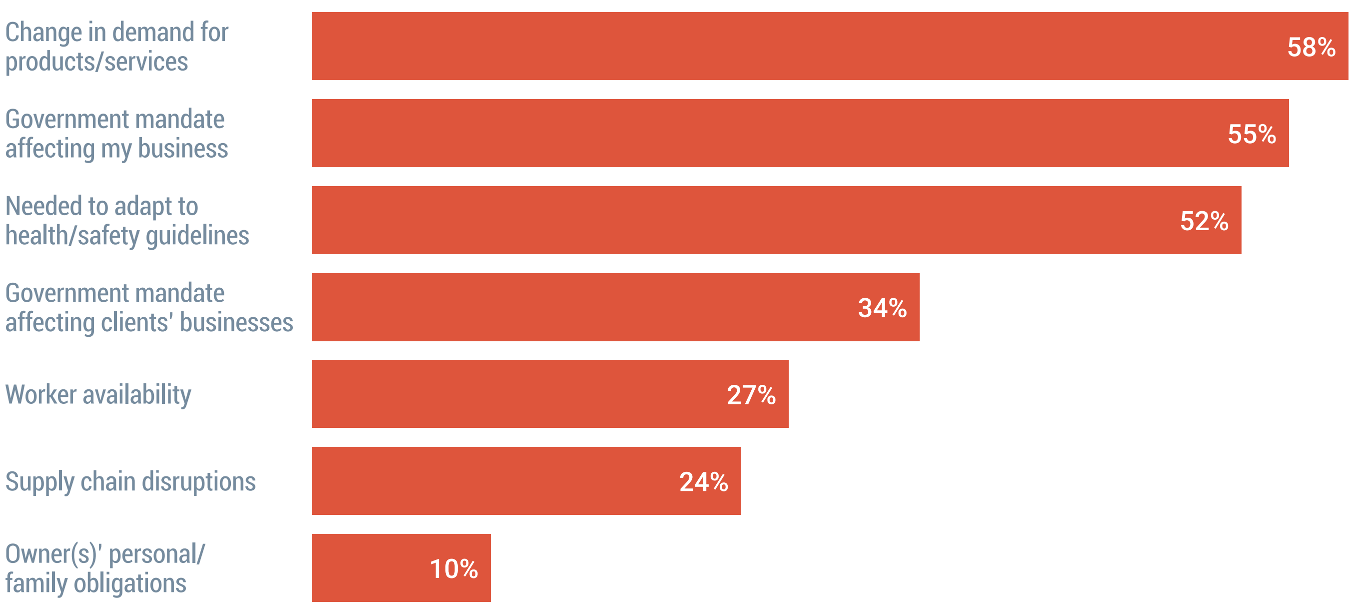
# PERFORMANCE & CHALLENGES
## Effects of the Pandemic on Operations

### 95% of employer firms reported that the pandemic affected their operations.

**EFFECTS OF THE PANDEMIC ON BUSINESS OPERATIONS**[1] (% of employer firms) N=9,657




**DRIVERS OF OPERATIONAL CHANGES DURING THE PANDEMIC**[2,3] N=8,949
(% of employer firms that temporarily closed or reduced/modified operations)

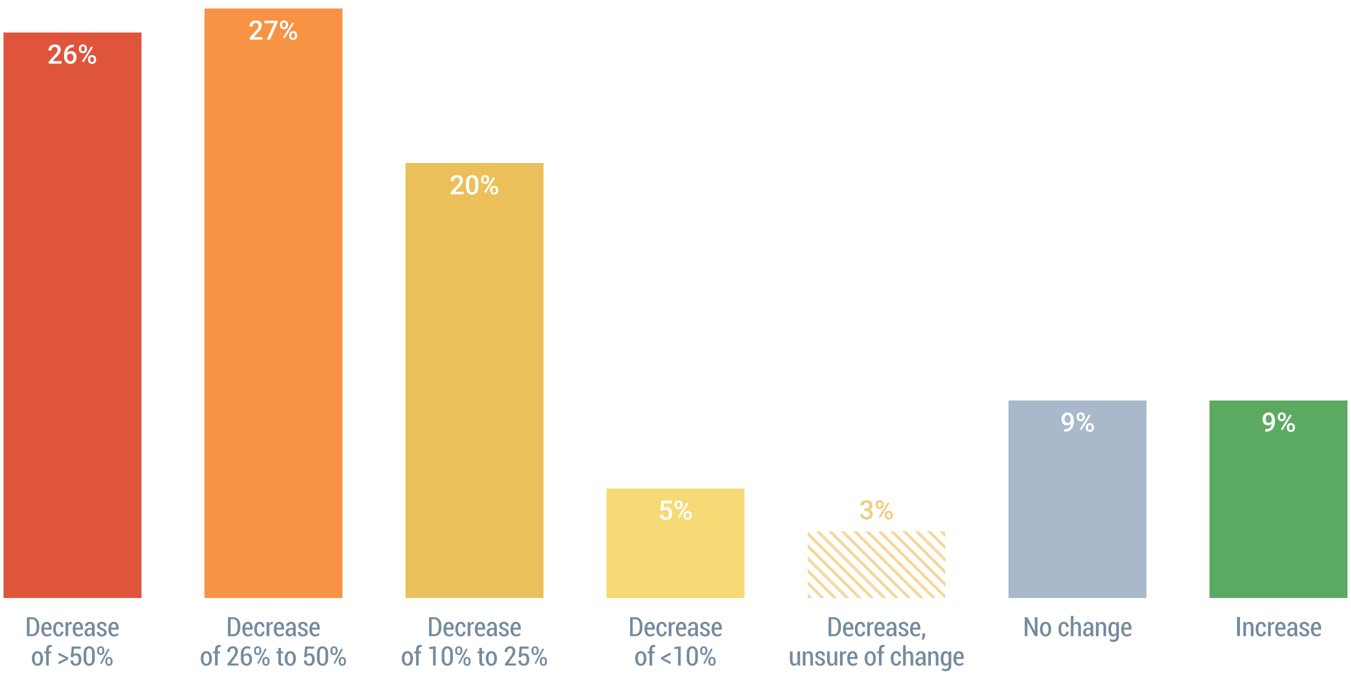



1 *Respondents could select multiple options. For example, a firm may have temporarily closed, and then reopened with reduced operations. "Temporarily closed" includes firms that remained closed at the time of survey and firms that had closed for a time but have since reopened.*
2 *Respondents could select multiple options.*
3 *Response option "other" not shown in chart. See Appendix for more detail.*

# PERFORMANCE & CHALLENGES
## Effects of the Pandemic on Sales and Supply Chain

**81% of firms reported a decrease in sales as a result of the pandemic, and 53% expected a 2020 sales decline of more than 25%.**

**EXPECTED IMPACT OF THE PANDEMIC ON TOTAL SALES FOR 2020**[1] (% of employer firms) N=9,612



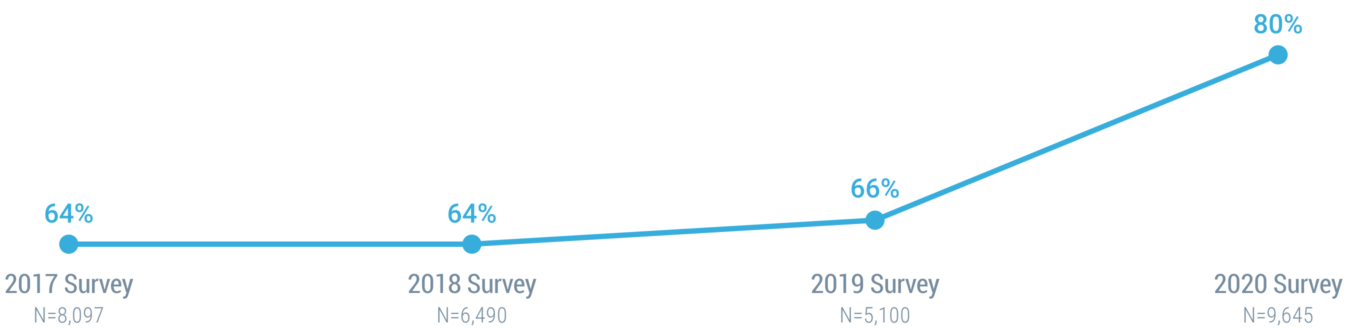

**IMPACT OF THE PANDEMIC ON THE AVAILABILITY OF GOODS AND SERVICES IN FIRMS' SUPPLY CHAINS**[1] (% of employer firms) N=9,636


1 *Percentages may not sum to 100 due to rounding.*

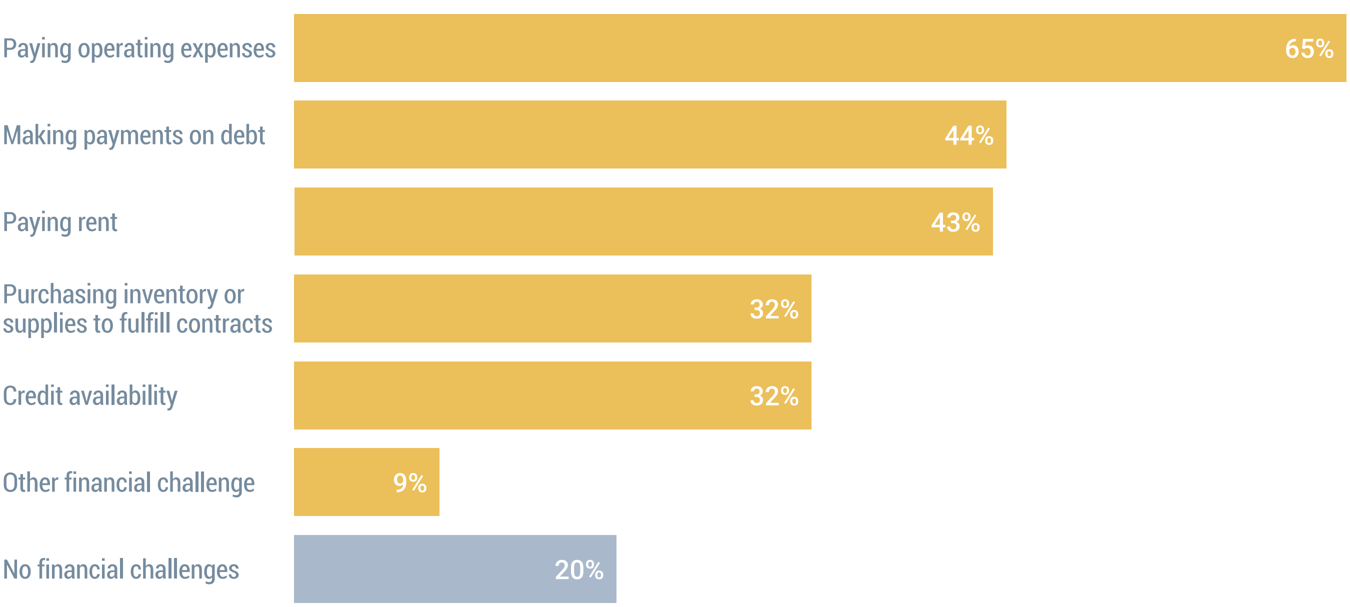
# PERFORMANCE & CHALLENGES
## Financial Challenges, Prior 12 Months

**80% of employer firms experienced financial challenges in the prior 12 months, an increase of 14 percentage points from the 2019 survey.**

**SHARE OF FIRMS WITH FINANCIAL CHALLENGES,** *Prior 12 Months*[1] (% of employer firms)




**TYPES OF FINANCIAL CHALLENGES,** *Prior 12 Months*[2,3] (% of employer firms) N=9,645



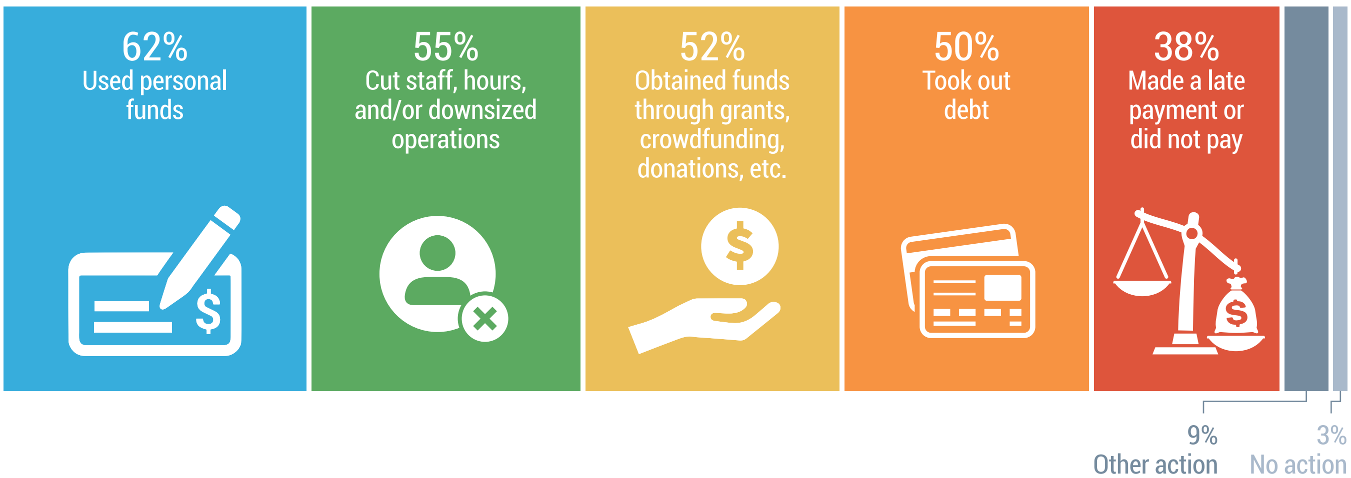

1 *Approximately the second half of the prior year through the second half of the surveyed year.*
2 *Respondents could select multiple options.*
3 *Approximately the second half of 2019 through the second half of 2020.*

## 62% of firms used personal funds to address their financial challenges.

**ACTIONS TAKEN TO ADDRESS FINANCIAL CHALLENGES,** *Prior 12 Months*[1,2]

(% of employer firms reporting financial challenges)

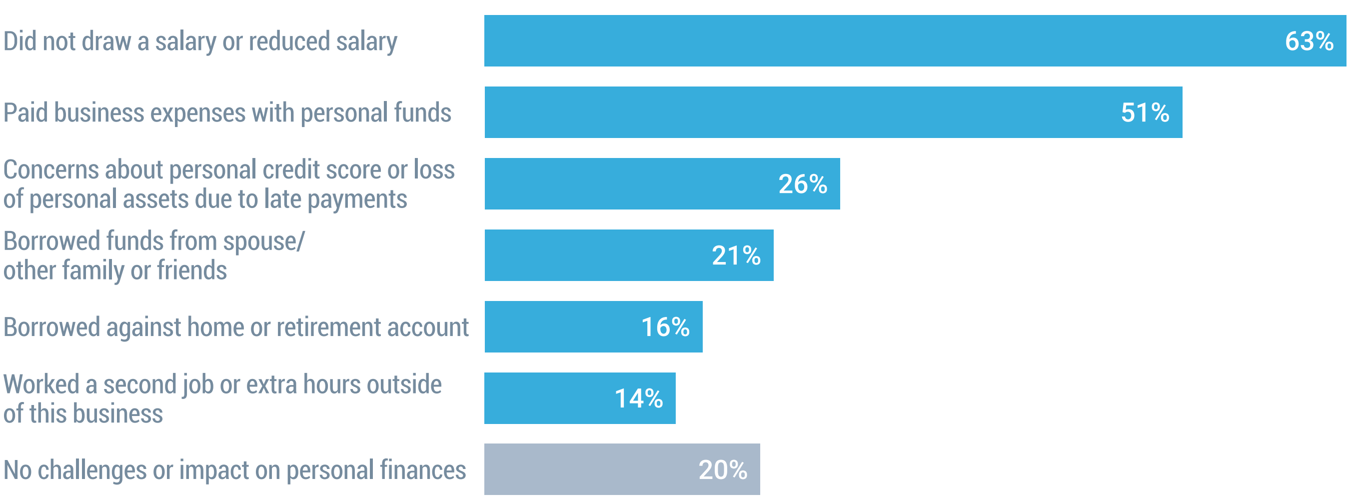
N=7,897




## 80% of firms reported that pandemic-related business challenges impacted the owners' personal finances.

**EFFECTS OF THE FIRMS' FINANCIAL CHALLENGES ON THE PRIMARY OWNERS' PERSONAL FINANCES**[1,3,4] (% of employer firms)

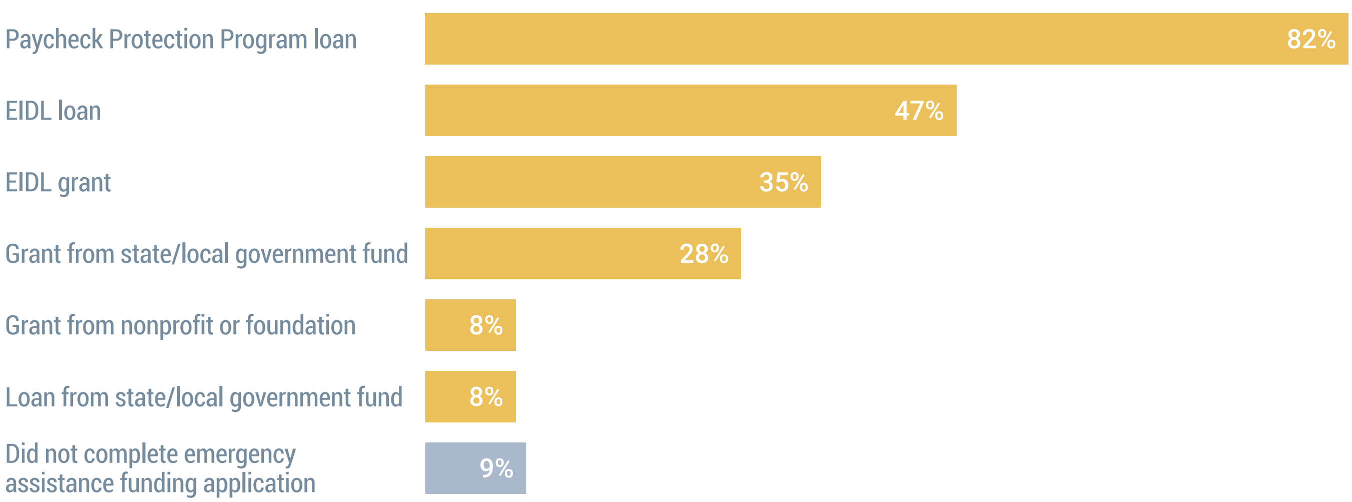
N=6,794




1 *Respondents could select multiple options.*
2 *Approximately the second half of 2019 through the second half of 2020.*
3 *Response option "other" not shown in chart. See Appendix for more detail.*
4 *Data on personal finances were drawn from questions in the optional end-of-survey module (completed by approximately 80% of respondents). This subset of respondents is re-weighted to be reflective of the overall small firm population.*

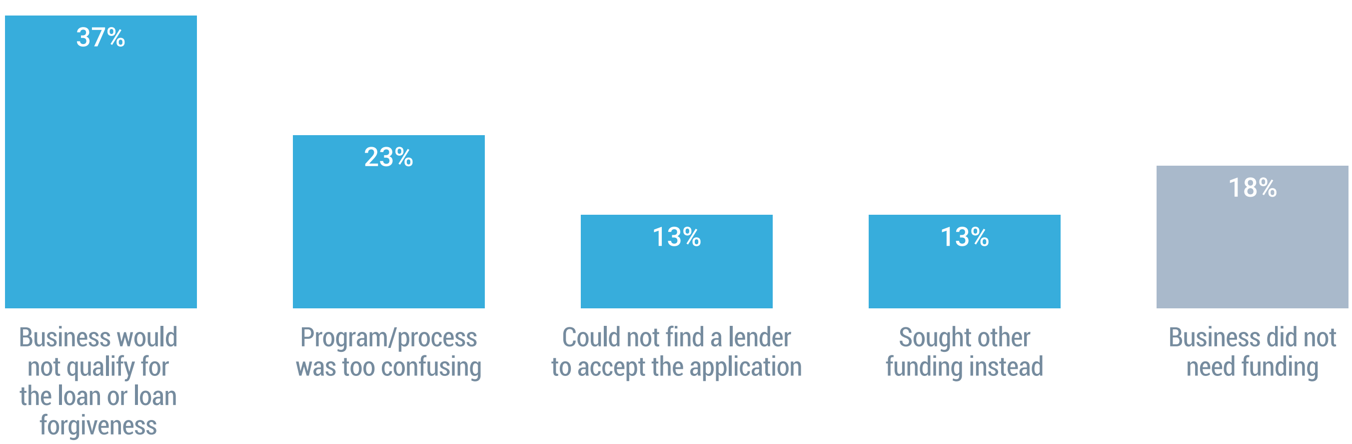
## 91% of employer firms sought emergency assistance funding.

**APPLICATIONS FOR EMERGENCY ASSISTANCE FUNDS**[1,2,3] (% of employer firms) N=9,565




## Of the firms that did not seek a Paycheck Protection Program (PPP) loan, 37% did not apply because they expected their business would not qualify for the loan or loan forgiveness.

**REASONS FIRMS DID NOT APPLY FOR A PPP LOAN,** *Top Reasons*[3,4] (% of PPP nonapplicants) N=1,742




1 *The Paycheck Protection Program (PPP) and Economic Injury Disaster Loan (EIDL) are administered through the US Small Business Administration. Main Street Lending Program option not shown. See Appendix for more detail.*
2 *The shares of firms that sought and obtained PPP funding that are shown in this report are higher than estimates from other sources. Much of the variance is likely attributed to the exclusion of nonemployer firm responses from this report, as nonemployers are less likely to have sought and obtained PPP funding. SBCS findings for nonemployers will be released in a separate publication.*
3 *Respondents could select multiple options.*
4 *Top response options shown. Other response options—"unaware of program," "uninterested in government aid," "employees already laid off," and "missed deadline"—were below 10%. See Appendix for more detail.*

# EMERGENCY FUNDING

## PPP Application Outcomes and Expected Loan Forgiveness

**96% of employer firms that applied for PPP loans reported that they received at least some funding.**

**PPP FUNDING RECEIVED, AS A SHARE OF AMOUNT SOUGHT**[1,2,3]

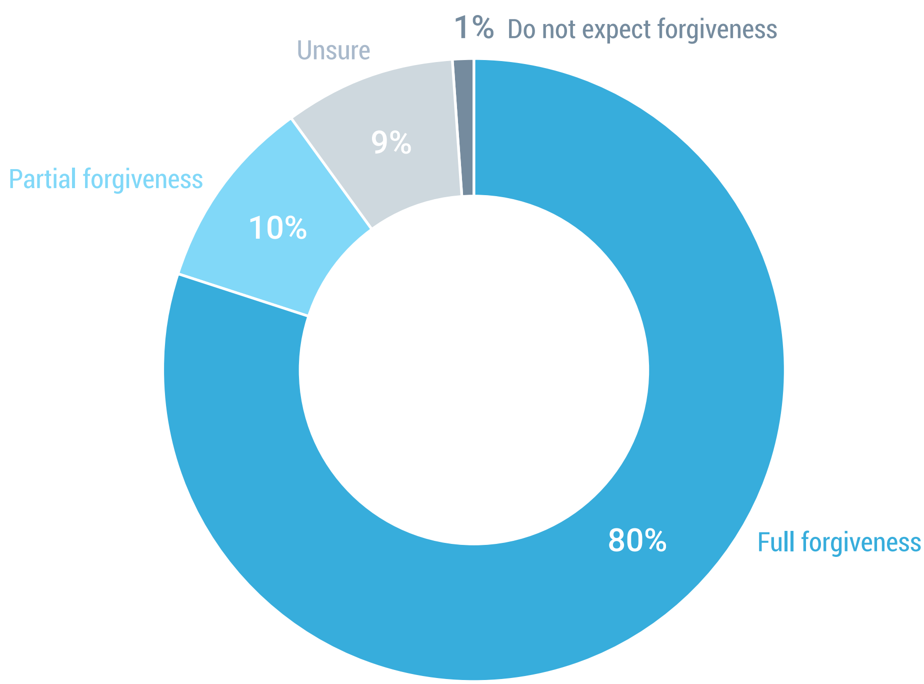
(% of PPP applicants)

N=7,575


**SHARE OF PPP RECIPIENTS THAT EXPECT LOAN FORGIVENESS**[1]

(% of PPP applicants at least partially approved)

N=7,243



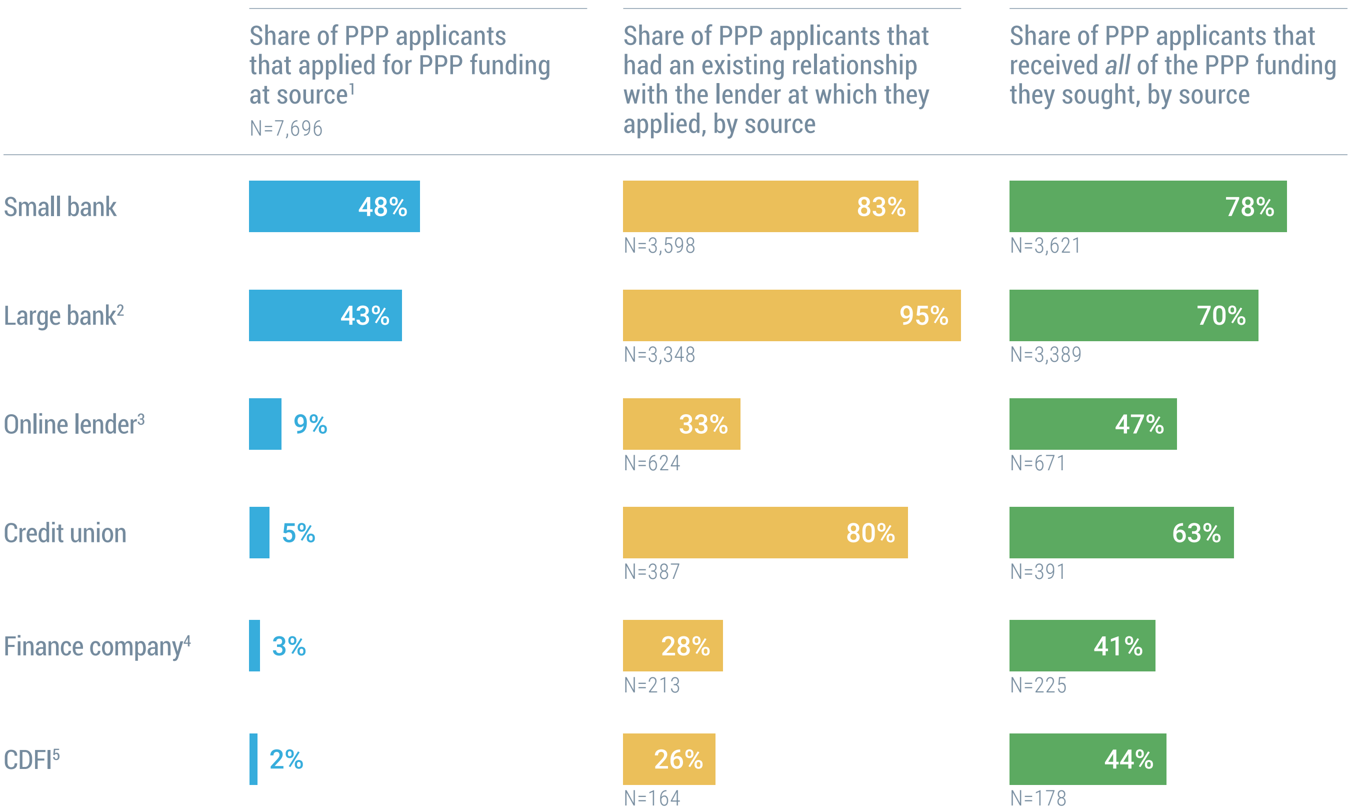

1 *The Paycheck Protection Program (PPP) is administered through the US Small Business Administration.*

2 *The shares of firms that sought and obtained PPP funding that are shown in this report are higher than estimates from other sources. Much of the variance is likely attributed to the exclusion of nonemployer firm responses from this report, as nonemployers are less likely to have sought and obtained PPP funding. SBCS findings for nonemployers will be released in a separate publication.*

3 *Note that as a share of all employer firms in the SBCS sample (PPP applicants and nonapplicants), 78% received at least some PPP funding.*

### Small banks were the most common source for PPP loans among employer firms, and the source from which applicants were most successful in obtaining all the PPP funding they sought.

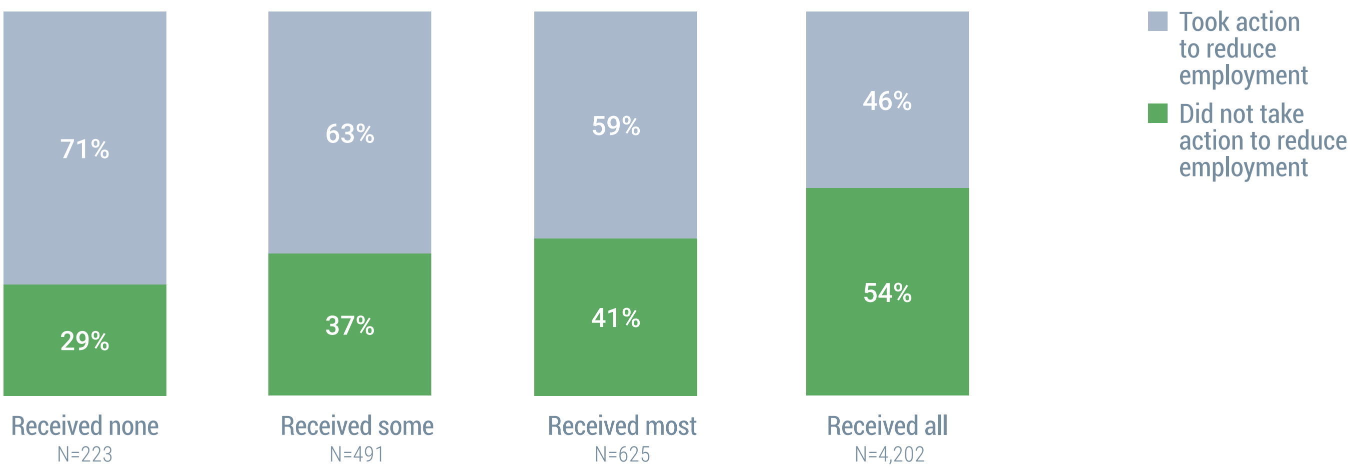
**PPP APPLICATIONS AND OUTCOMES,** *By Source*



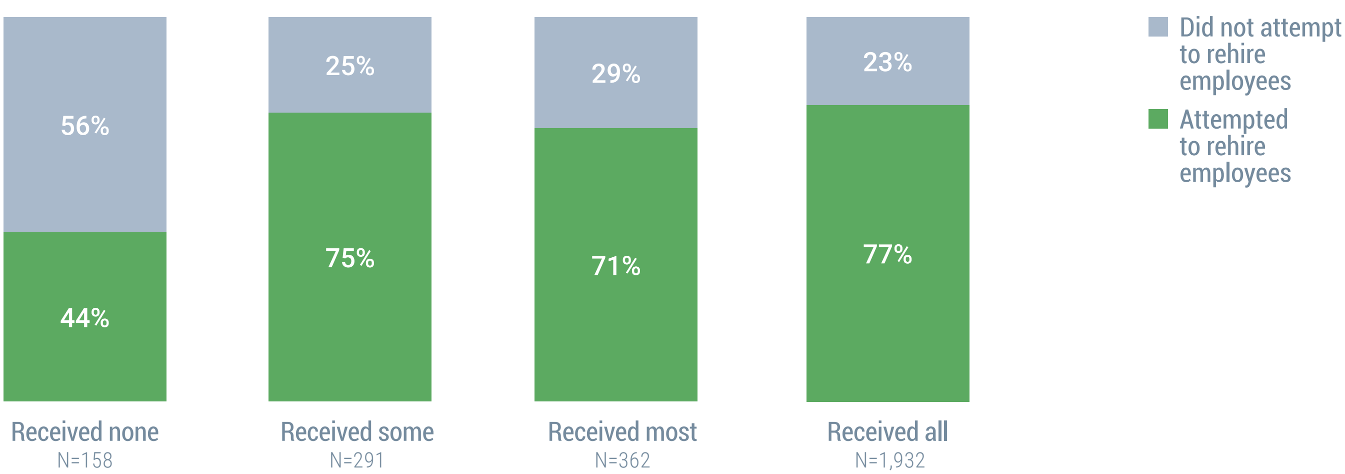

1 *Respondents could select multiple options; respondents may have submitted more than one application.*
2 *Respondents were provided a list of large banks (those with at least $10B in total deposits) operating in their state.*
3 *"Online lenders," also called fintech lenders, are nonbanks that lend online. Examples include: Lending Club, OnDeck, CAN Capital, Paypal Working Capital, Kabbage, etc.*
4 *"Finance company" includes nonbank lenders such as mortgage companies, equipment dealers, insurance companies, auto finance companies, etc.*
5 *Community development financial institutions (CDFIs) are financial institutions that provide credit and financial services to underserved markets and populations. CDFIs are certified by the CDFI Fund at the US Department of the Treasury.*

## Among PPP applicants, firms that received funding were more likely than firms that did not receive funding to retain their workforce.

**SHARE OF FIRMS THAT REDUCED THEIR NUMBER OF EMPLOYEES AFTER MARCH 1, 2020,**
*By PPP Funding Received*[1,2] (% of PPP applicants)




**SHARE OF FIRMS THAT ATTEMPTED TO REHIRE EMPLOYEES,** *By PPP Funding Received*[1,2]
(% of PPP applicants that took action to reduce employment)



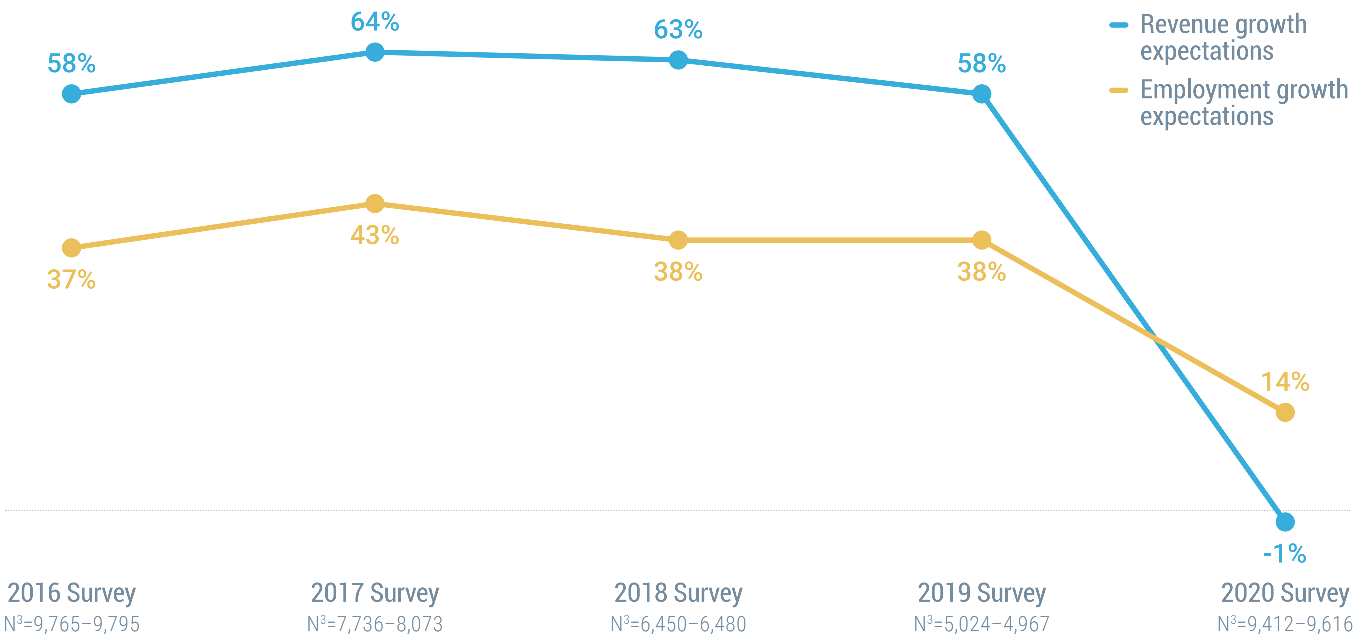

1 *Data on employment actions were drawn from questions in the optional end-of-survey module (completed by approximately 80% of respondents). This subset of respondents is re-weighted to be reflective of the overall small firm population.*
2 *Share received is the share of the PPP funding sought that the applicant received. "Received some" is 1–50%; "Received most" is 51–99%.*

# LOOKING AHEAD

## Performance Expectations, Next 12 Months

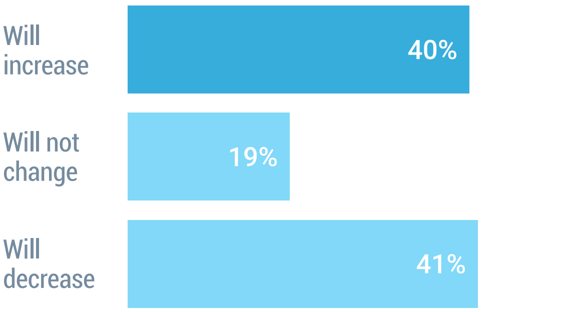
### More firms were expecting a revenue decrease than a revenue increase in the next 12 months.

**EMPLOYER FIRM EXPECTATIONS INDEX,** *Next 12 Months*[1,2] (% of employer firms)

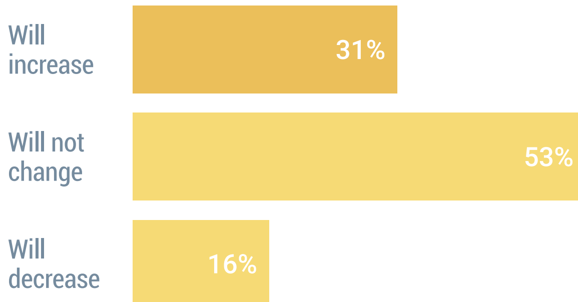



**EMPLOYER FIRM PERFORMANCE EXPECTATIONS,** *2020 Survey* (% of employer firms)

**REVENUE CHANGE,** *Next 12 Months*[4] N=9,616




**CHANGE IN EMPLOYMENT,** *Next 12 Months*[4] N=9,412




1 *The index is the share reporting expected growth minus the share reporting a reduction. Due to rounding, the 2020 employment index is not equal to the difference between the shares shown for firms expecting an increase and firms expecting a decrease.*
2 *Expected change in approximately the second half of the surveyed year through the second half of the following year.*
3 *Questions were asked separately, thus the number of observations may differ slightly between questions.*
4 *Next 12 months is approximately the second half of 2020 through the second half of 2021.*

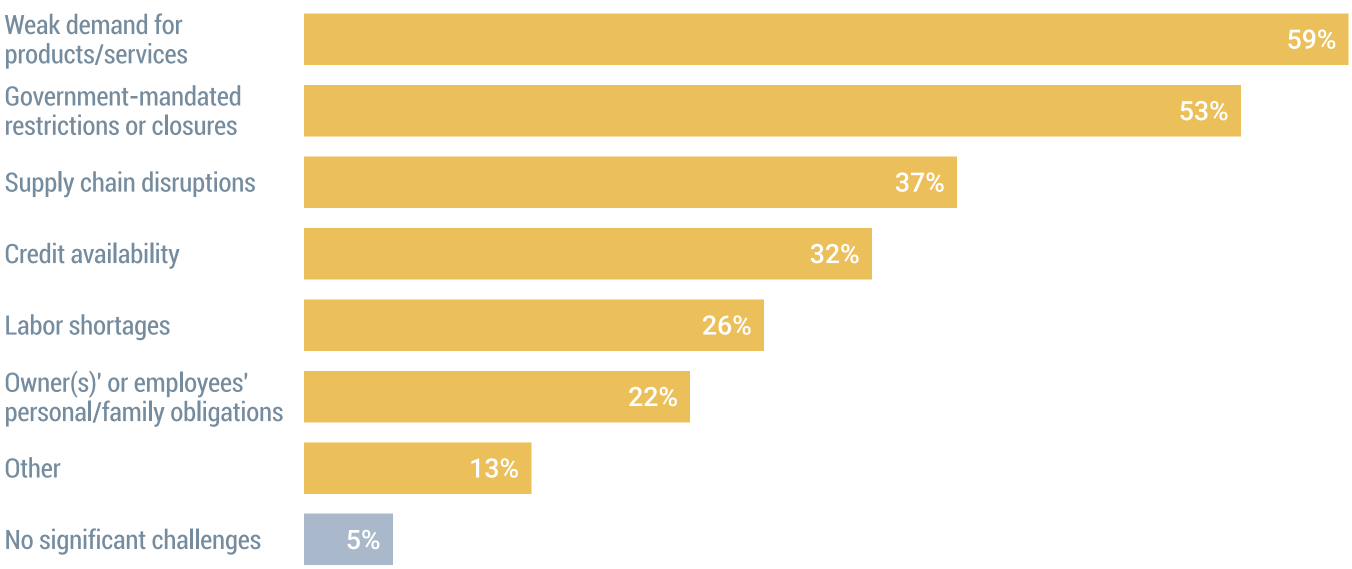
# LOOKING AHEAD

## Expected Challenges Resulting From Pandemic, Next 12 Months

### 95% of firms expected to face one or more pandemic-related challenges in the next 12 months.

**CHALLENGES FIRMS EXPECT TO FACE AS A RESULT OF THE PANDEMIC,** *Next 12 Months*[1,2] N=9,648

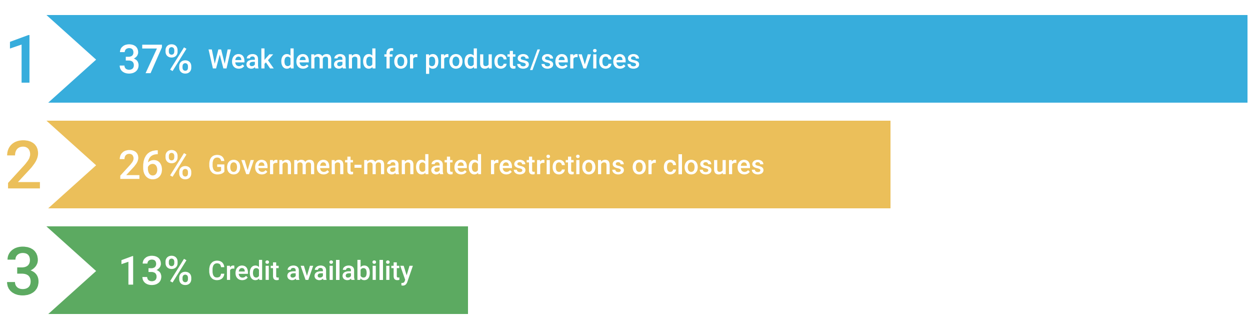
(% of employer firms)




### Of those anticipating pandemic-related challenges, 37% of firms identified weak demand as the most important challenge they expect to face.

**SINGLE MOST IMPORTANT CHALLENGE FIRMS EXPECT TO FACE,** *Next 12 Months*[2,3] N=9,218

(% of employer firms expecting one or more pandemic-related challenges)




1 *Respondents could select multiple options.*

2 *Next 12 months is approximately the second half of 2020 through the second half of 2021.*

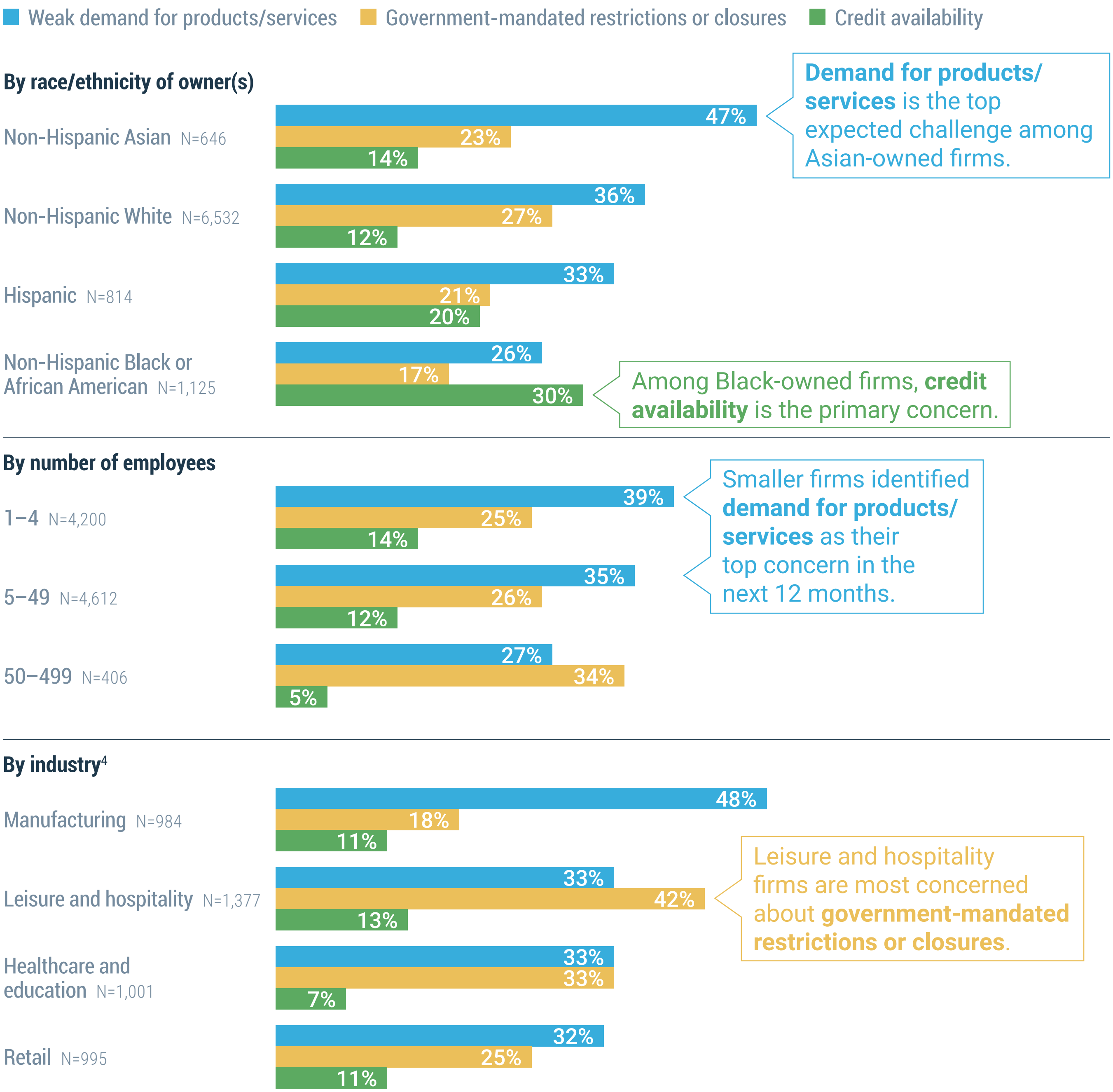
3 *Respondents who identified more than one anticipated challenge were asked which challenge they expected would be most important. This chart includes these responses as well as responses for firms with only one anticipated challenge.*

# LOOKING AHEAD

## Expected Challenges Resulting From Pandemic, Next 12 Months (Continued)

### Most important expected challenges varied by firms' size and industry, and the owners' race and ethnicity.

**SINGLE MOST IMPORTANT CHALLENGE FIRMS EXPECT TO FACE AS A RESULT OF THE PANDEMIC,**
*Next 12 Months, Top Challenges Shown*[1,2,3] (% of employer firms expecting one or more pandemic-related challenges)

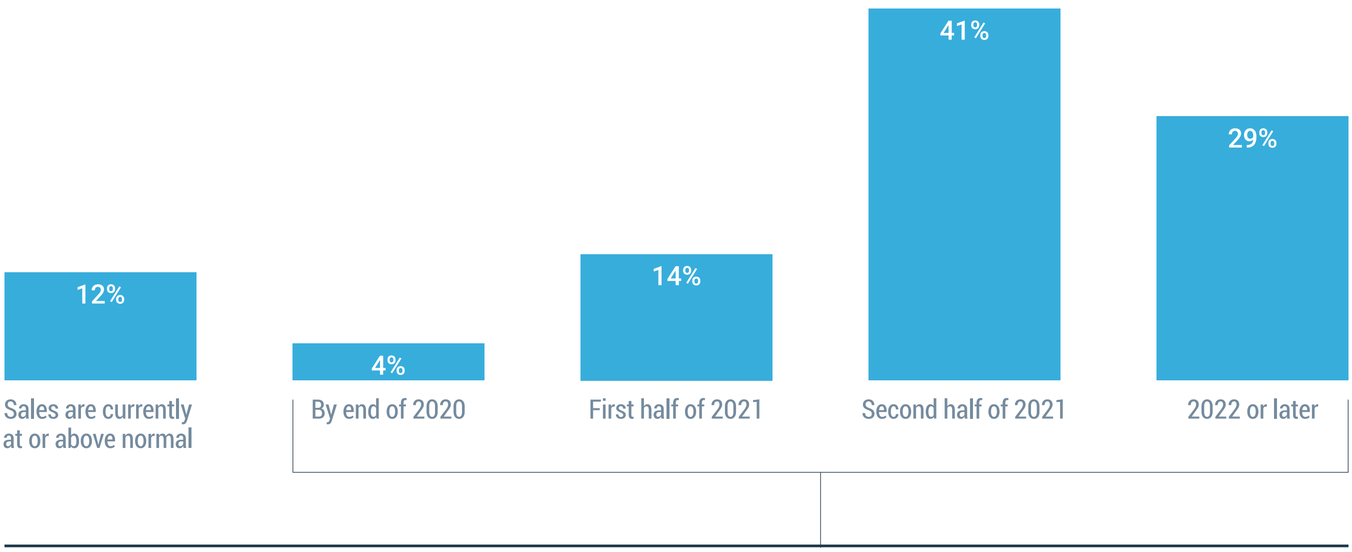



1 *Select demographic categories shown. See Appendix for more detail.*
2 *Percentages may not sum to 100 because only the three most important challenges are shown. See Appendix for more detail.*
3 *Next 12 months is approximately the second half of 2020 through the second half of 2021.*
4 *Select industries shown.*

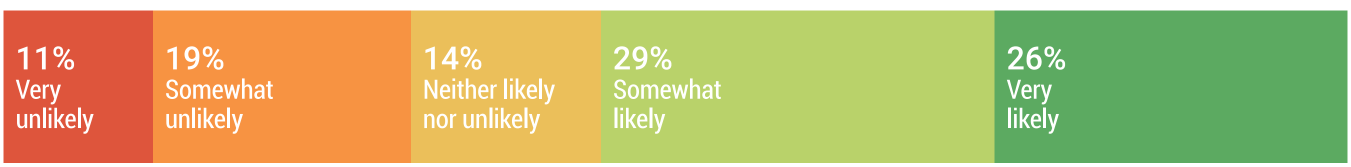
# LOOKING AHEAD
## Survival Expectations

**30% of the firms that reported sales were below normal at the time of the survey expect it is unlikely the business will survive without government assistance until sales recover.**

**EXPECTED TIMING OF SALES' RETURN TO "NORMAL" (I.E., 2019 LEVELS)**[1,2,3] (% of employer firms) N=7,019




**LIKELIHOOD FIRMS WILL SURVIVE WITHOUT ADDITIONAL GOVERNMENT ASSISTANCE UNTIL SALES RETURN TO NORMAL**[1,2] (% of employer firms for which sales had not yet returned to normal) N=6,287



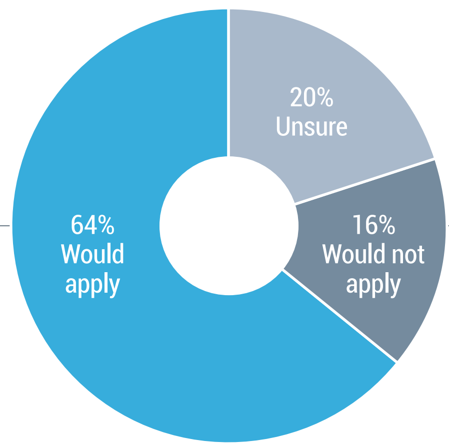

1 *Percentages may not sum to 100 due to rounding.*
2 *Data on sales recovery and firm survival expectations were drawn from questions in the optional end-of-survey module (completed by approximately 80% of respondents). This subset of respondents is re-weighted to be reflective of the overall small firm population.*
3 *At time of survey, September through October 2020.*

# LOOKING AHEAD
## Plans to Apply for More Emergency Assistance in the Future

### At the time of the survey, 64% of firms planned to apply for future government assistance if it was made available.

**FIRMS' PLANS TO APPLY FOR FUTURE GOVERNMENT-PROVIDED EMERGENCY ASSISTANCE FUNDING IF IT WAS MADE AVAILABLE**[1,2] (% of employer firms)

N=9,679

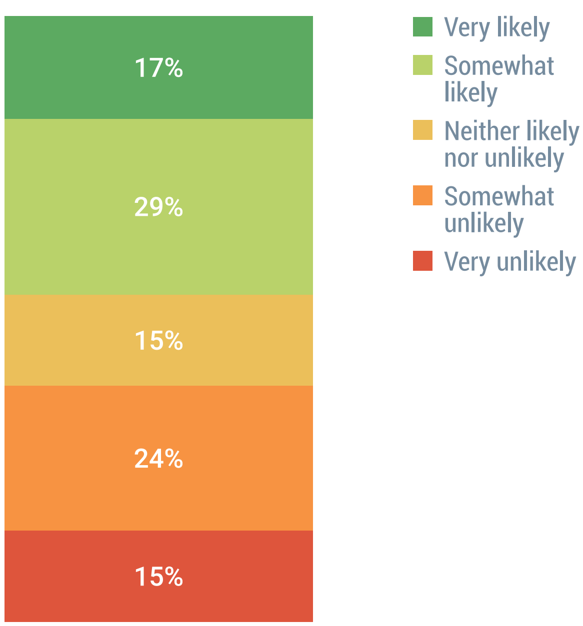



**39% of firms that would apply** believe it is unlikely they **will survive** without further government assistance **until sales return to normal**.

**7% of firms that would not apply** believe it is unlikely they **will survive** without further government assistance **until sales return to normal**.

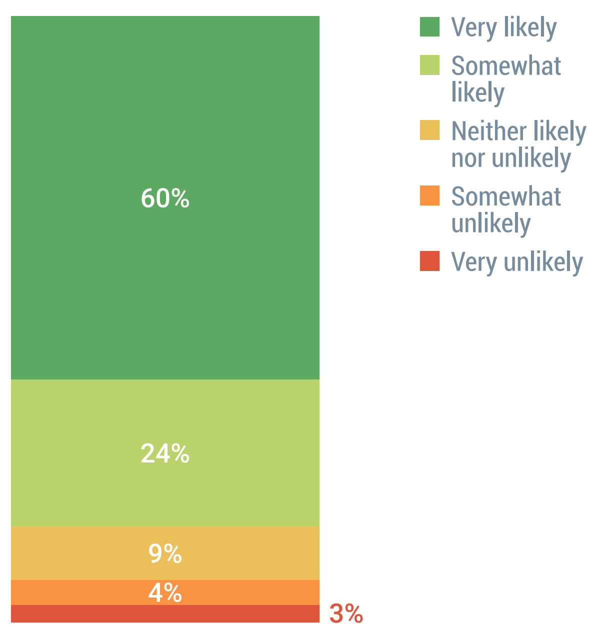
**LIKELIHOOD OF SURVIVAL**[3]
(% of firms that would apply for assistance)

N=4,465




**LIKELIHOOD OF SURVIVAL**[3]
(% of firms that would not apply for assistance)

N=660

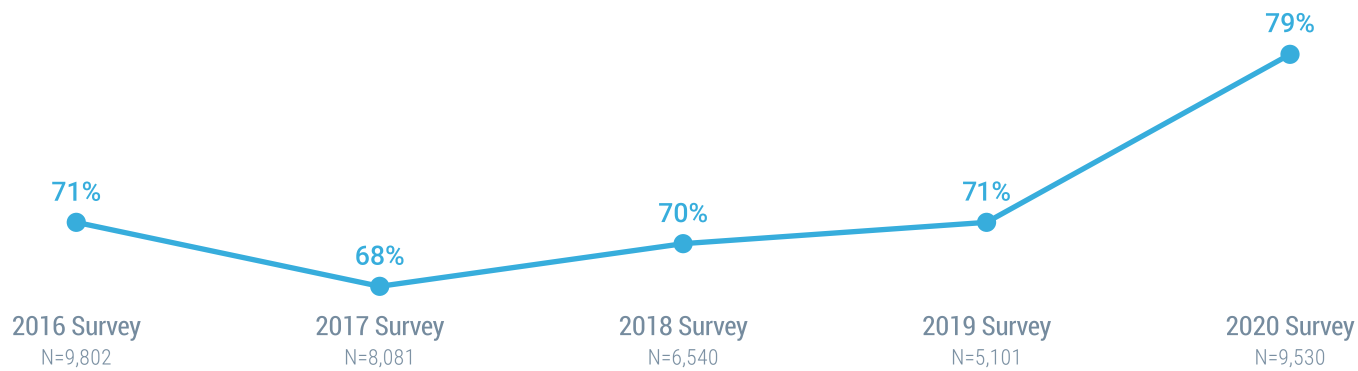



1 *Percentages may not sum to 100 due to rounding.*
2 *The survey was administered in September and October of 2020, after the close of 2020 PPP funding and prior to the announcement of new PPP funding. Therefore, respondents were asked about their firms' intent to apply for hypothetical, undefined future government-provided funding.*
3 *Data on sales recovery and firm survival expectations were drawn from questions in the optional end-of-survey module (completed by approximately 80% of respondents). This subset of respondents is re-weighted to be reflective of the overall small firm population.*

# DEBT & FINANCING
## Debt Outstanding

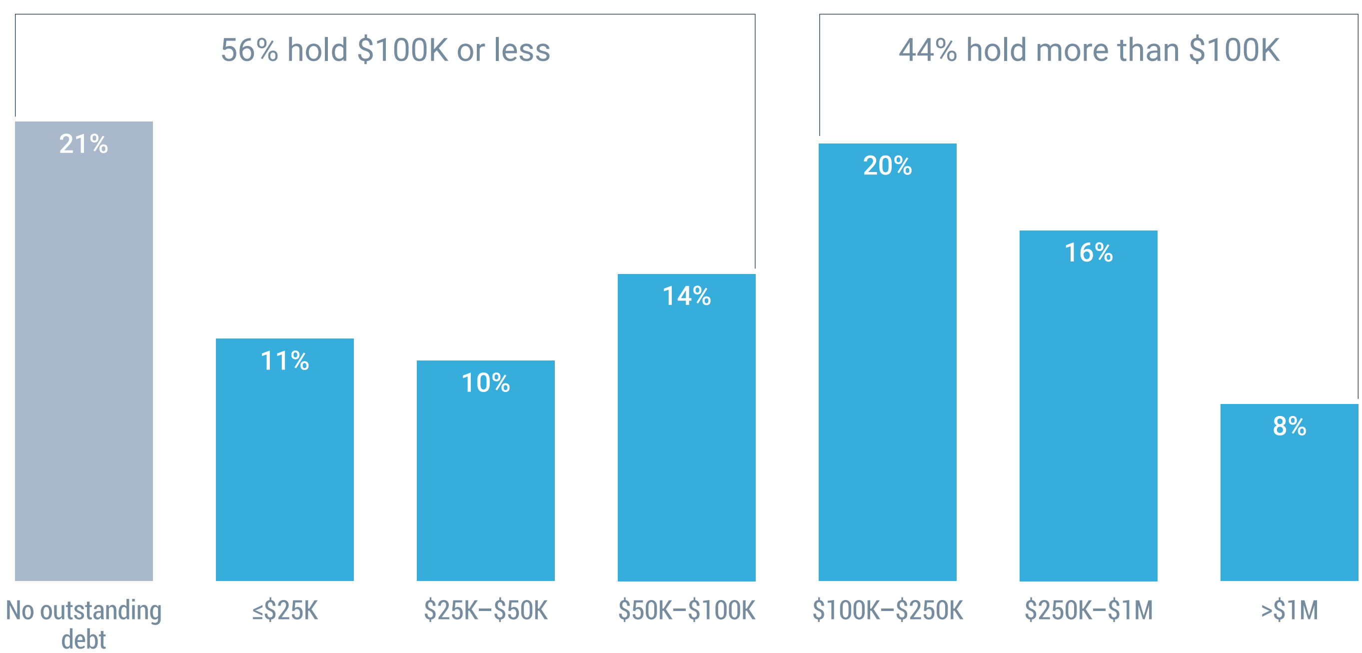
### 79% of employer firms have debt outstanding, up from 71% in 2019.

**SHARE OF FIRMS WITH DEBT OUTSTANDING,** *At Time of Survey*[1] (% of employer firms)




### The share of firms holding more than $100K in debt increased from 31% to 44% between the 2019 and 2020 surveys.

**AMOUNT OF DEBT,** *At Time of 2020 Survey*[1,2] (% of employer firms) N=9,443

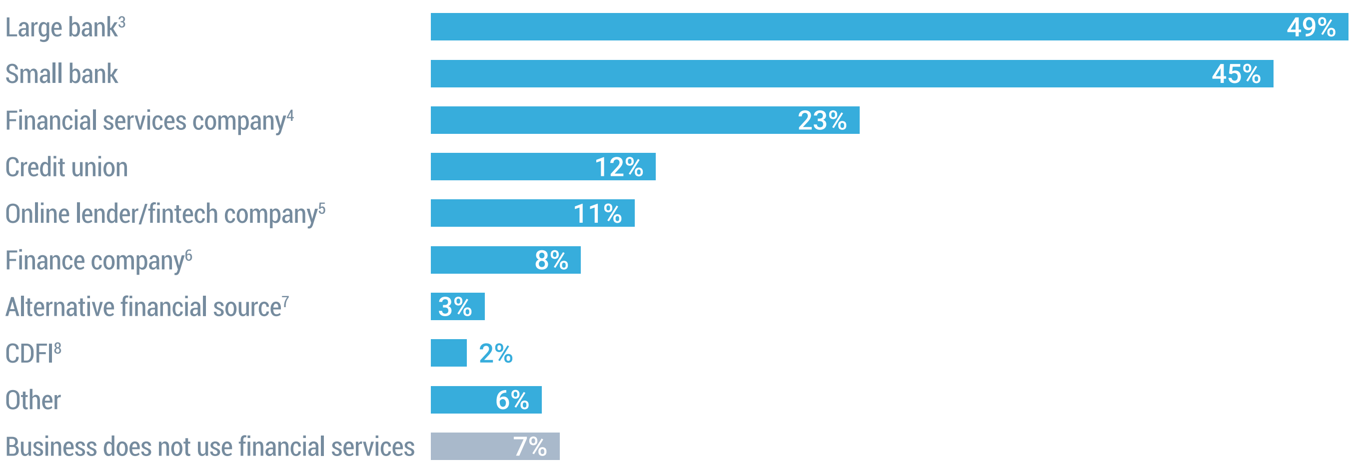



1 *Respondents were instructed to exclude loans they expected would be forgiven from their outstanding debt (for example, PPP loans).*
2 *Categories have been simplified for readability. Actual categories are: ≤$25K, $25,001–$50K, $50,001–$100K, $100,001–$250K, $250,001–$1M, >$1M.*

# DEBT & FINANCING
## Financial Services Providers

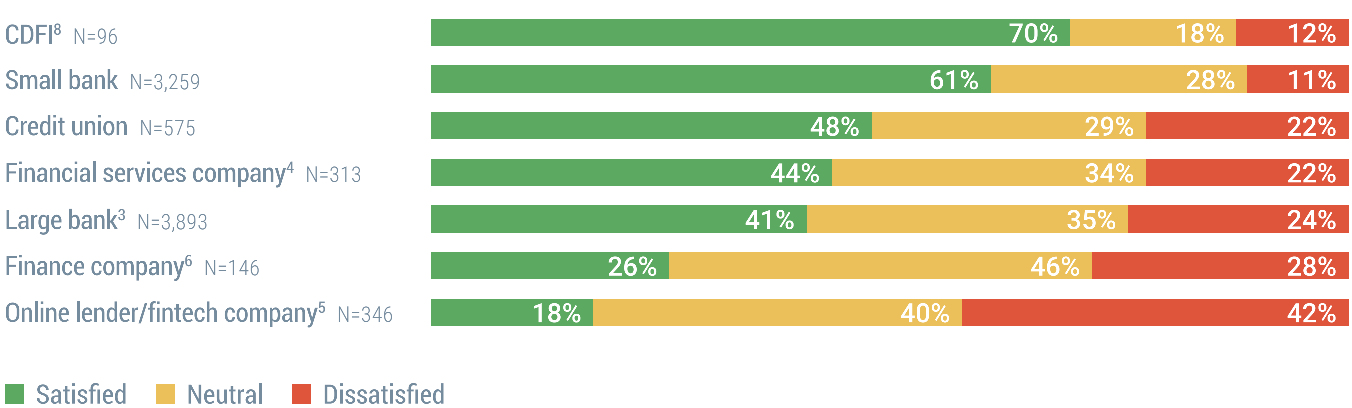
### 83% of firms used either a large or small bank as a financial services provider.

**USE OF FINANCIAL SERVICES PROVIDERS**[1,2] (% of employer firms) N=9,646




### When asked about the support they received during the pandemic from their primary financial services provider, firms were most satisfied with support from CDFIs and small banks.

**SATISFACTION WITH SUPPORT FROM PRIMARY FINANCIAL SERVICES PROVIDER DURING THE PANDEMIC**[9,10] (% of employer firms that use provider)



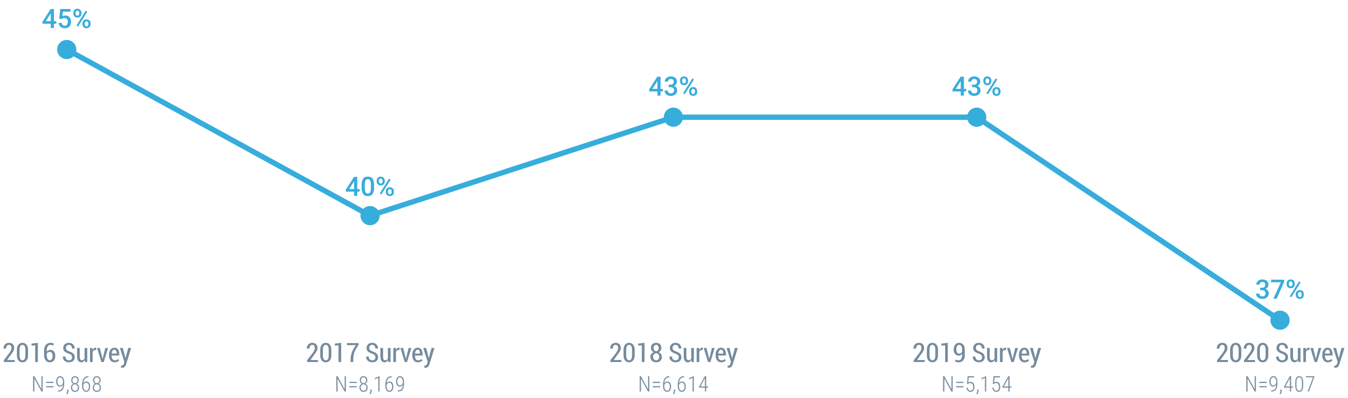

1 *Financial services providers are those at which the firm has an account or uses other financial services (including loans, payments processing, etc.).*
2 *Respondents could select multiple options.*
3 *Respondents were provided a list of large banks (those with at least $10B in total deposits) operating in their state.*
4 *"Financial services company" includes nonbanks that provide business financial services (payroll processing, merchant services, accounting, etc.).*
5 *Online lenders/fintech companies are nonbanks that operate online. Examples include: OnDeck, Kabbage, Paypal, Square, etc.*
6 *"Finance company" includes nonbank lenders such as mortgage companies, equipment dealers, insurance companies, auto finance companies, etc.*
7 *Examples include payday lender, check cashing, pawn shop, money order/transmission service, etc.*
8 *Community development financial institutions (CDFIs) are financial institutions that provide credit and financial services to underserved markets and populations. CDFIs are certified by the CDFI Fund at the US Department of the Treasury.*
9 *Satisfaction is available for only respondents' primary financial services providers. See Appendix for details on primary financial services providers.*
10 *Percentages may not sum to 100 due to rounding.*

# DEBT & FINANCING

## Demand for Financing, Prior 12 Months

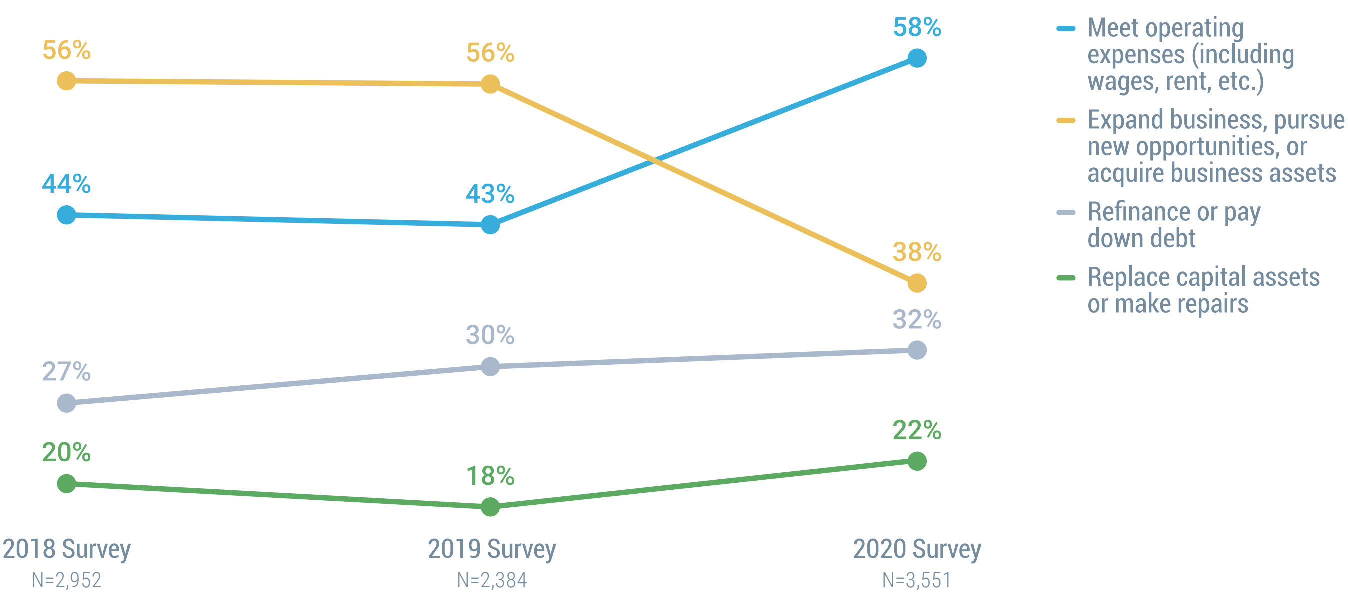
### 37% of firms sought financing in the prior 12 months, down from 43% in the 2019 survey.

**SHARE THAT APPLIED FOR FINANCING,** *Prior 12 Months*[1,2] (% of employer firms)
*2020 application rate excludes PPP and other pandemic-related emergency funding applications.*




### In 2020, firms were more likely than in past years to have applied for financing because they needed funds to meet operating expenses.

**REASONS FOR APPLYING**[3] (% of applicants)



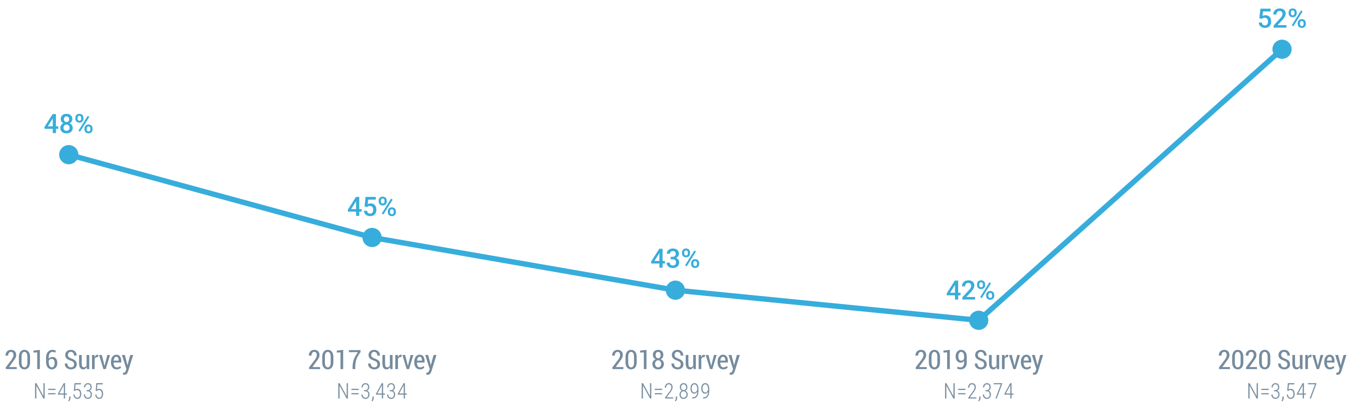

1 *In the 2020 survey, respondents were asked first about their applications for pandemic-related emergency funding, and then were asked to exclude these emergency funding applications from subsequent responses on the applications for financing.*
2 *Prior 12 months is approximately the second half of the prior year through the second half of the surveyed year.*
3 *Respondents could select multiple options.*

# DEBT & FINANCING

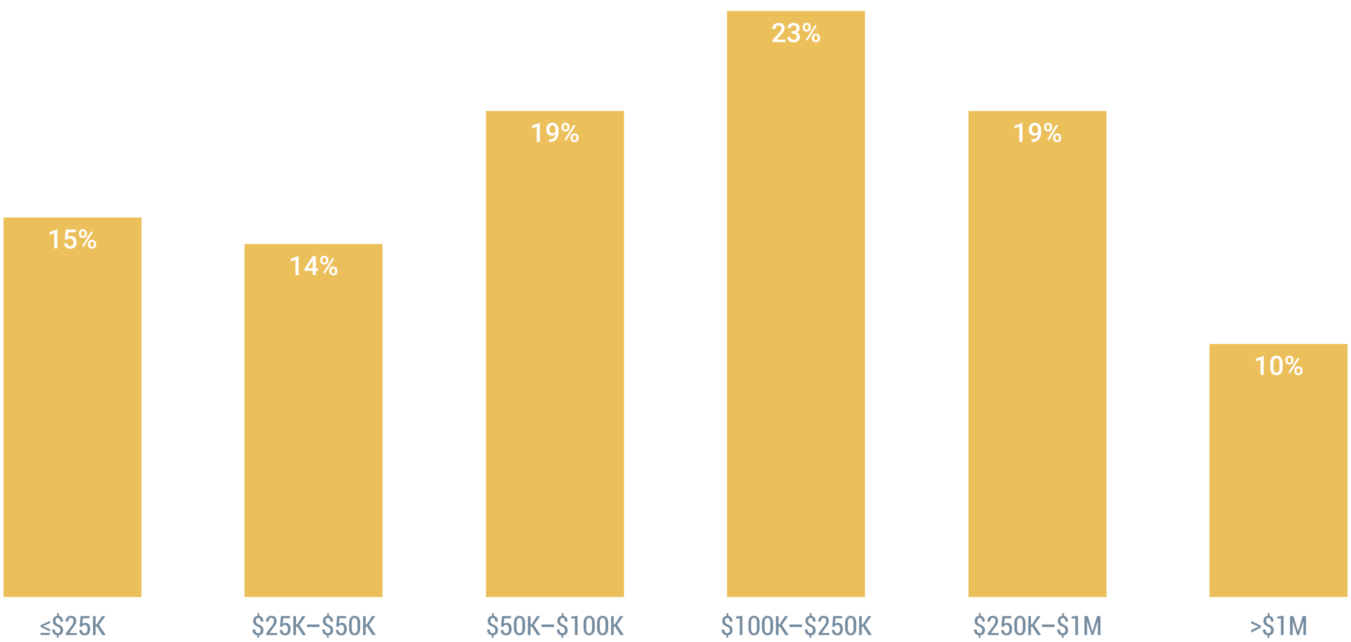
## Demand for Financing, Prior 12 Months (Continued)

### 52% of applicants sought more than $100K in financing, up 10 percentage points from the 2019 survey.

**SHARE OF APPLICANTS THAT SOUGHT MORE THAN $100K IN FINANCING,** *Prior 12 Months*[1,2] (% of applicants)




**TOTAL AMOUNT OF FINANCING SOUGHT,** *2020 Survey*[3] (% of applicants) N=3,547

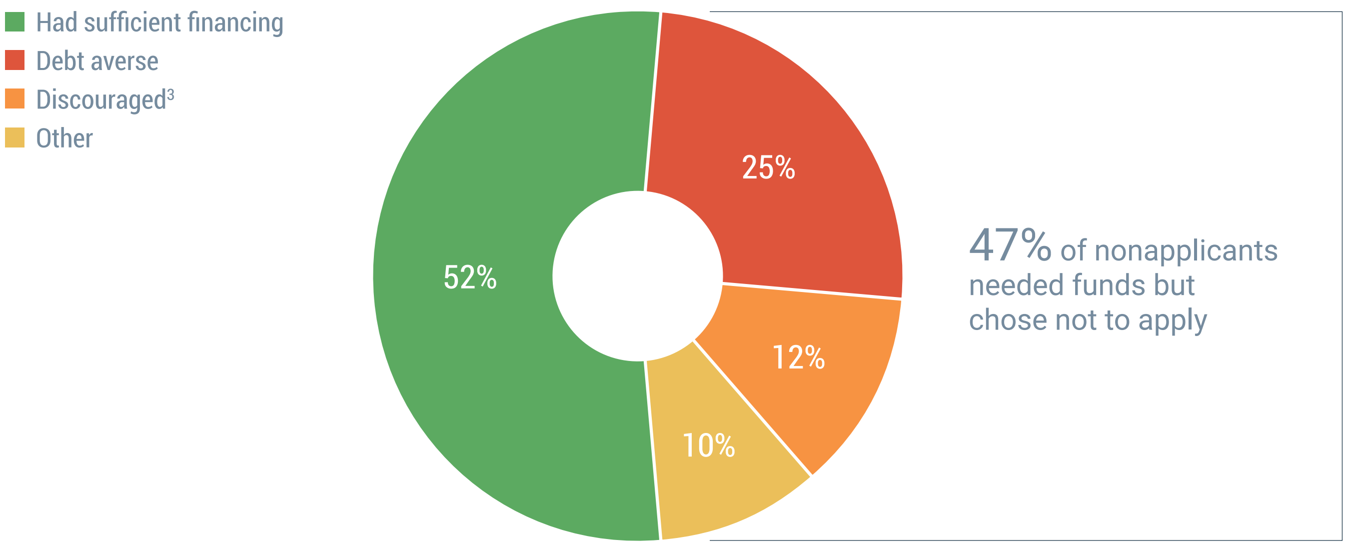



1 *Prior 12 months is approximately the second half of the prior year through the second half of the surveyed year.*
2 *Note that while the application rate declined between 2019 and 2020 for both larger and smaller firms (those with more than and less than $1M in annual revenues, respectively), the decline for smaller firms was greater. Therefore, firms with more than $1M in annual revenues accounted for a larger share of applicants in the 2020 survey (39%, compared to 32% in 2019).*
3 *Categories have been simplified for readability. Actual categories are: ≤$25K, $25,001–$50K, $50,001–$100K, $100,001–$250K, $250,001–$1M, >$1M.*

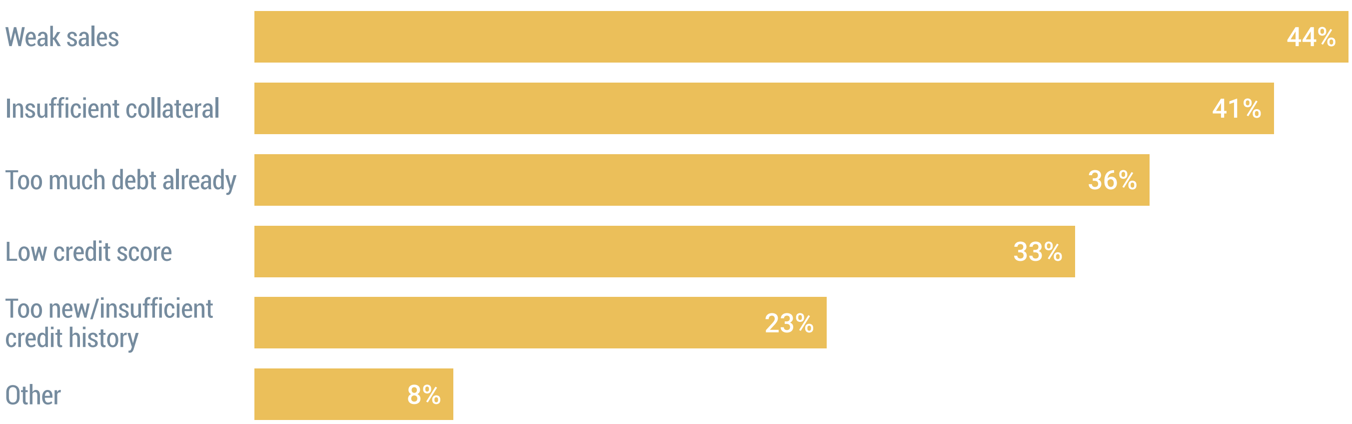
# DEBT & FINANCING
## Nonapplicants

**63% of employer firms were nonapplicants, meaning they did not apply for financing in the prior 12 months.[1]**

**TOP REASONS FIRMS DID NOT APPLY FOR FINANCING[1,2]** (% of nonapplicants) N=5,625




**REASONS DISCOURAGED BORROWERS DID NOT EXPECT TO BE APPROVED[3,4,5]** N=671
(% of discouraged nonapplicants)




1 Approximately the second half of 2019 through the second half of 2020.
2 Percentages may not sum to 100 due to rounding.
3 Discouraged firms are those that did not apply for financing because they believed they would be turned down.
4 Response option "other" includes "credit cost was too high," "application process was too difficult or confusing," and "other." See Appendix for more detail.
5 Respondents could select multiple options.

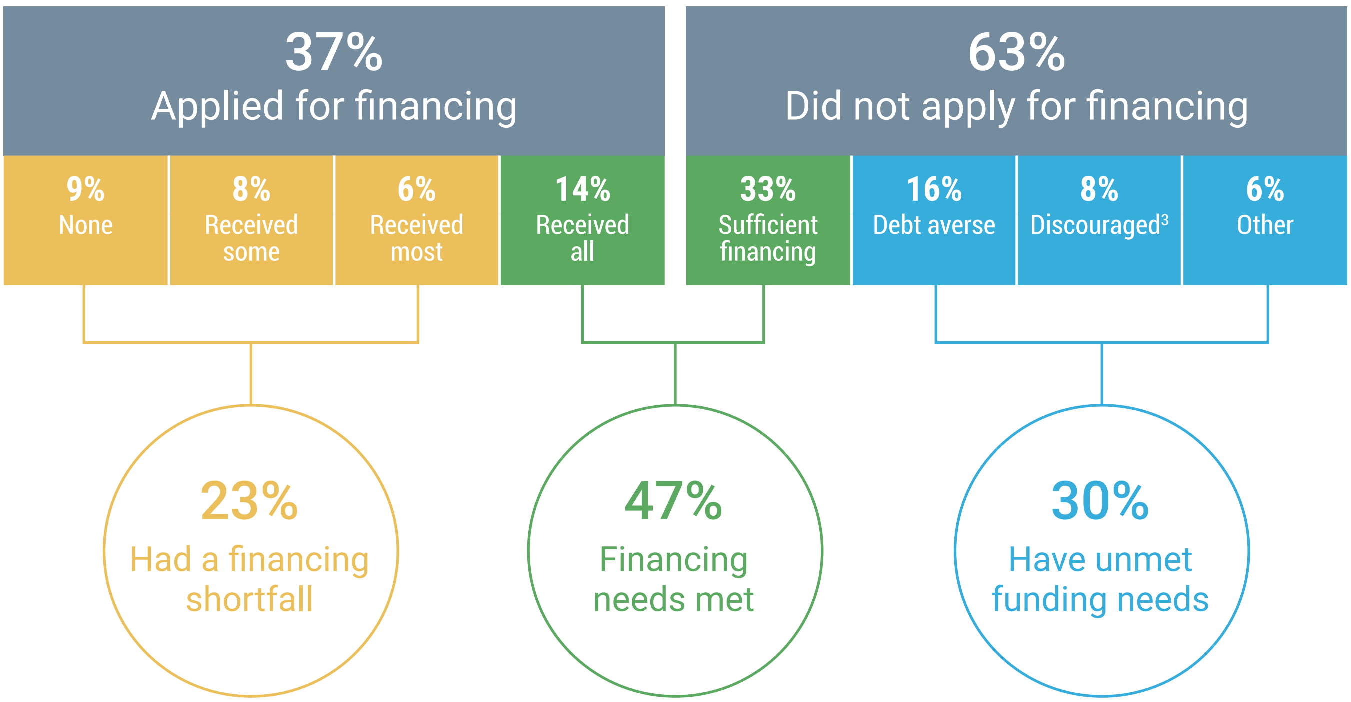
**FUNDING NEEDS AND OUTCOMES**[1,2] (% of employer firms) N=9,125

To gauge funding success and shortfalls, we combine applicants' financing outcomes and nonapplicants' reasons for not applying. Firms that had their funding needs met emerge in two forms:

1) Applicant firms that received the full amount of financing sought; or

2) Nonapplicant firms that did not apply for financing because they already had sufficient financing.

The remaining firms have unmet funding needs. When applicant firms did not obtain the full amount of financing sought, we consider them to have a funding shortfall. When nonapplicant firms reported they did not have sufficient financing, we consider them to have unmet funding needs.



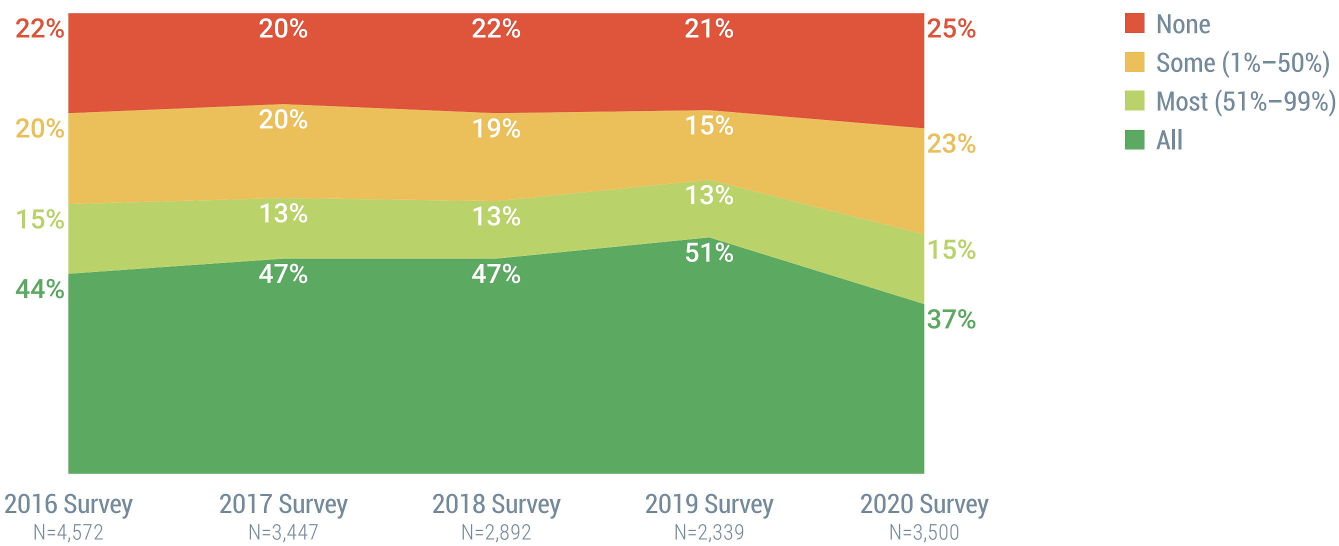

1 *Based on the prior 12 months, which is approximately the second half of 2019 through the second half of 2020.*
2 *Excludes emergency funding applications.*
3 *Discouraged firms are those that did not apply for financing because they believed they would be turned down.*

# DEBT & FINANCING

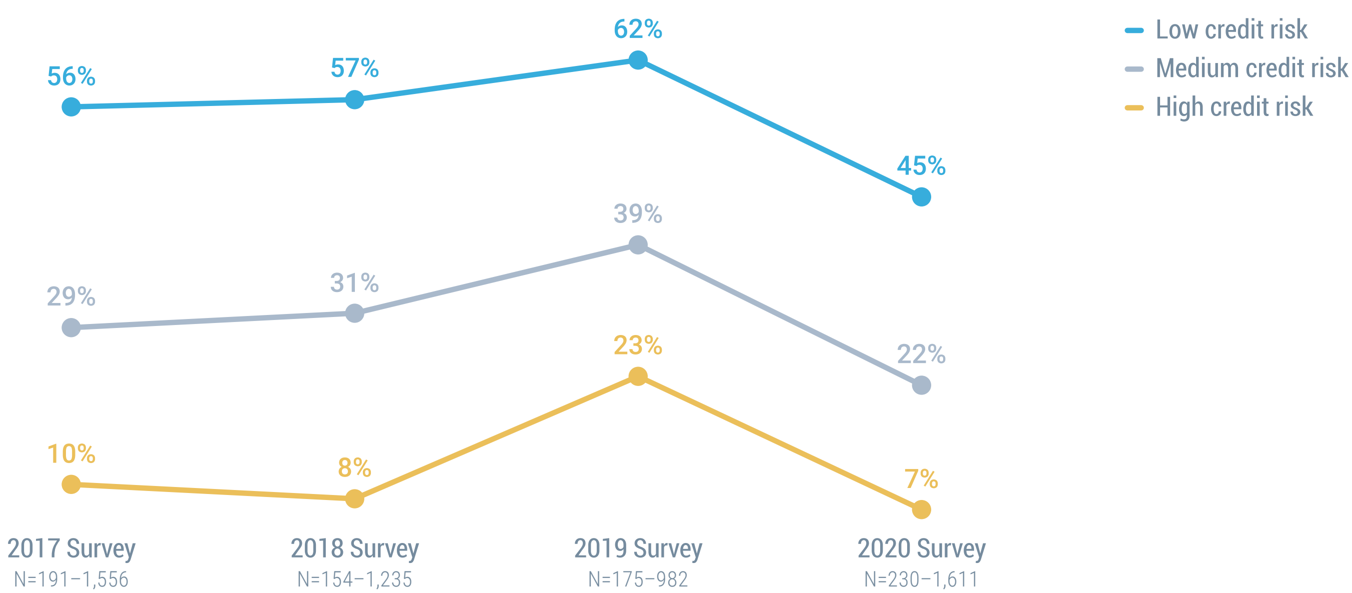
## Financing Received

**37% of applicants received all the financing they sought, down from 51% in the 2019 survey.**

**TOTAL FINANCING RECEIVED**[1,2] (% of applicants)




**SHARE RECEIVING ALL FINANCING SOUGHT,** *By Credit Risk of Firm*[3] (% of applicants)

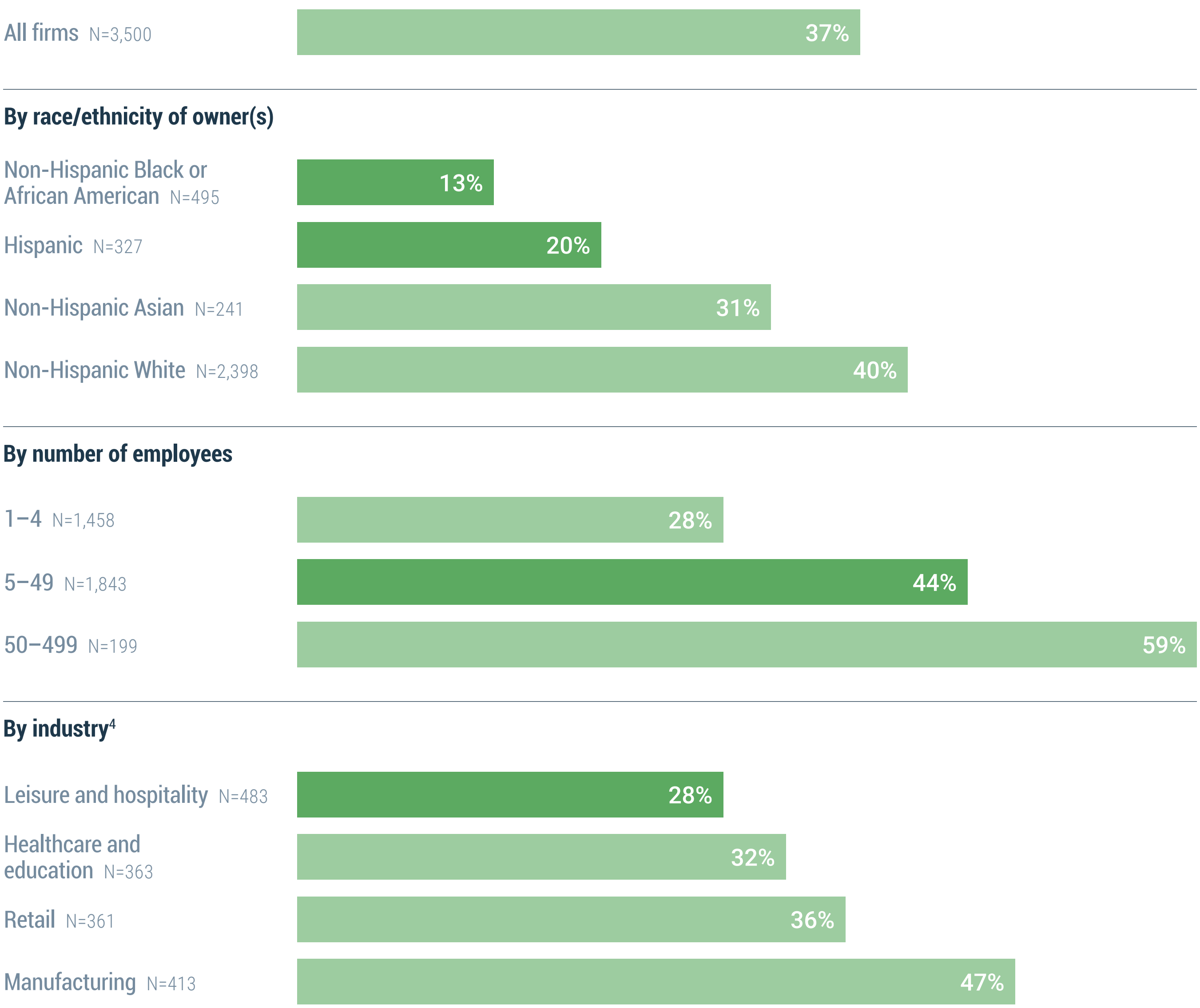



1 *Percentages may not sum to 100 due to rounding.*
2 *Excludes emergency funding applications.*
3 *Credit risk is determined by the self-reported business credit score or personal credit score, depending on which is used to obtain financing for their business. If the firm uses both, the higher risk rating is used. "Low credit risk" is a 80–100 business credit score or 720+ personal credit score. "Medium credit risk" is a 50–79 business credit score or a 620–719 personal credit score. "High credit risk" is a 1–49 business credit score or a <620 personal credit score.*

# DEBT & FINANCING
## Financing Received (Continued)

### Firms owned by people of color, firms with fewer employees, and leisure and hospitality firms were least likely to report receiving the full amount of financing sought.

**SHARE OF FIRMS THAT RECEIVED ALL FINANCING SOUGHT**[1,2,3] (% of applicants)

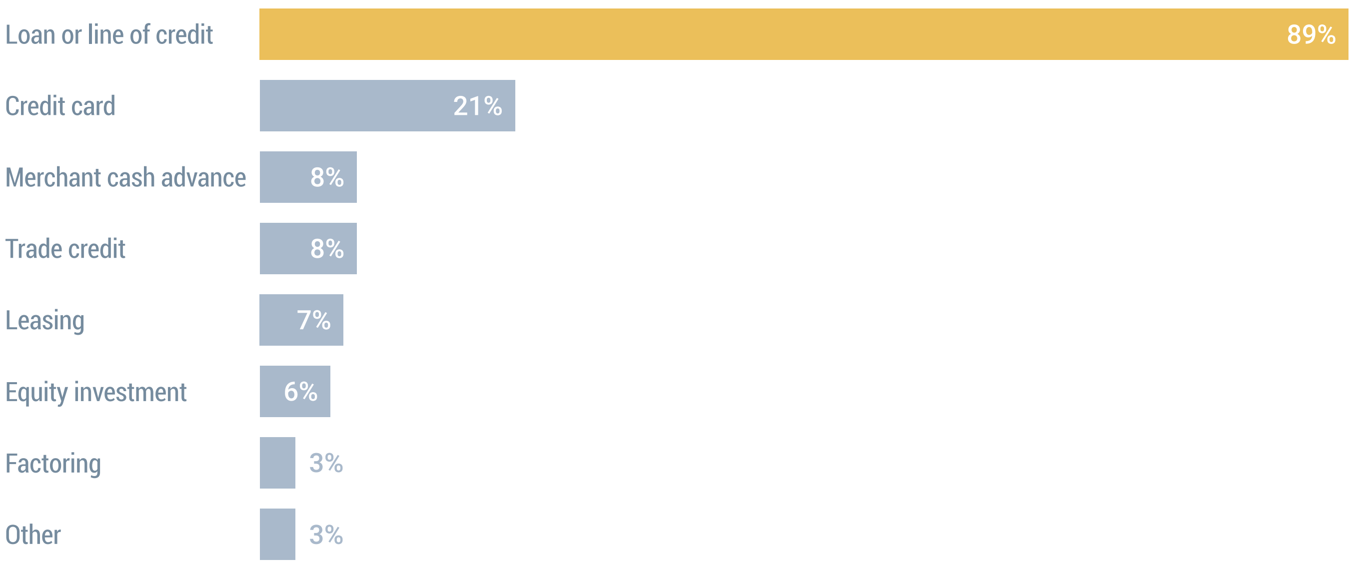



1 *Excludes emergency funding applications.*
2 *The characteristics shown in darker green bars are related to the likelihood of receiving all financing sought at a significance level of 0.05 using a logistic regression. For the demographics shown, the reference groups are Non-Hispanic White-owned firms, firms with 1-4 employees, and firms in the non-manufacturing goods production and associated services industry (39%, not shown).*
3 *Additional variables were tested for statistical significance, including credit risk, gender of owner(s), revenues, and age of firm. Along with the variables shown in the figure, firm age, and credit risk are also related to the likelihood of receiving all financing sought at a significance level of 0.05.*
4 *Select industries shown.*

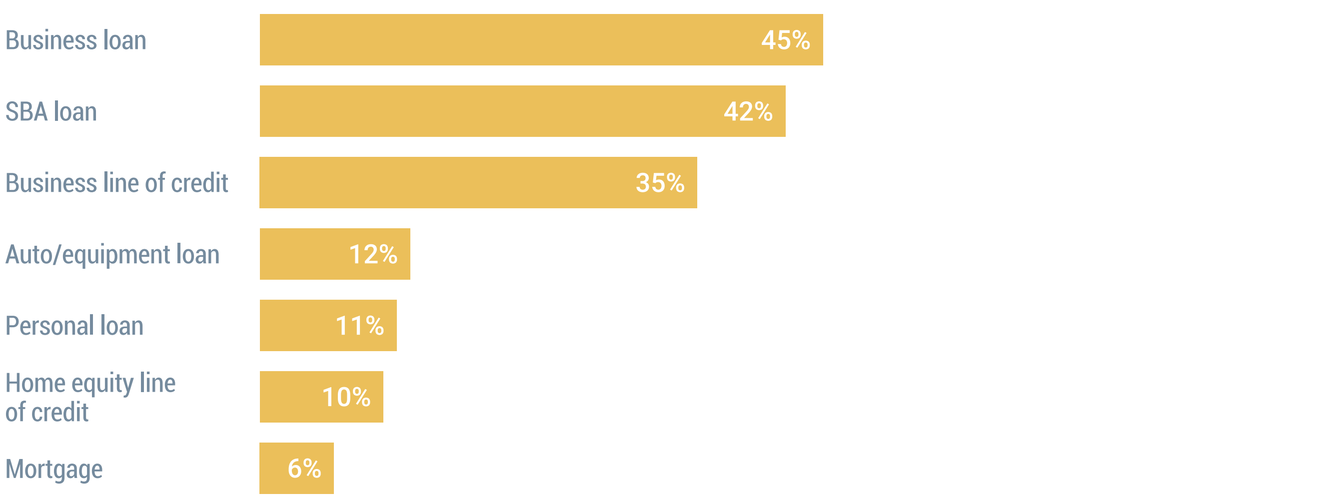
# FINANCING APPLICATIONS
## Products Sought

### Loans and lines of credit were the most common forms of financing sought by applicants.

**FINANCING AND CREDIT PRODUCTS SOUGHT**[1,2] (% of applicants) N=3,382




**APPLICATION RATE BY TYPE OF LOAN/LINE OF CREDIT**[1,2] (% of loan or line of credit applicants) N=2,565



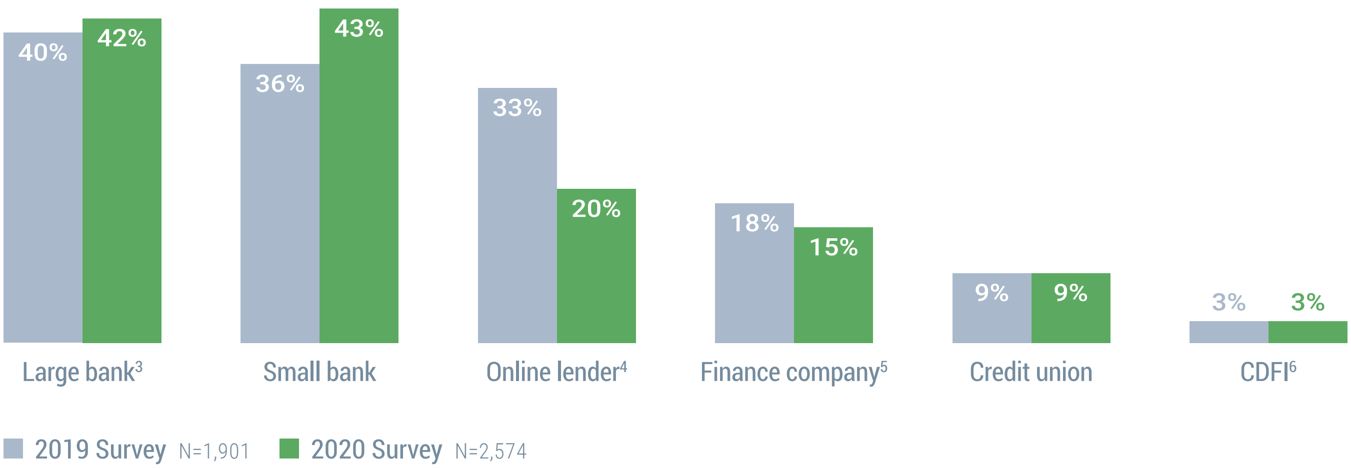

1 *Respondents could select multiple options.*
2 *Excludes emergency funding applications.*

# FINANCING APPLICATIONS

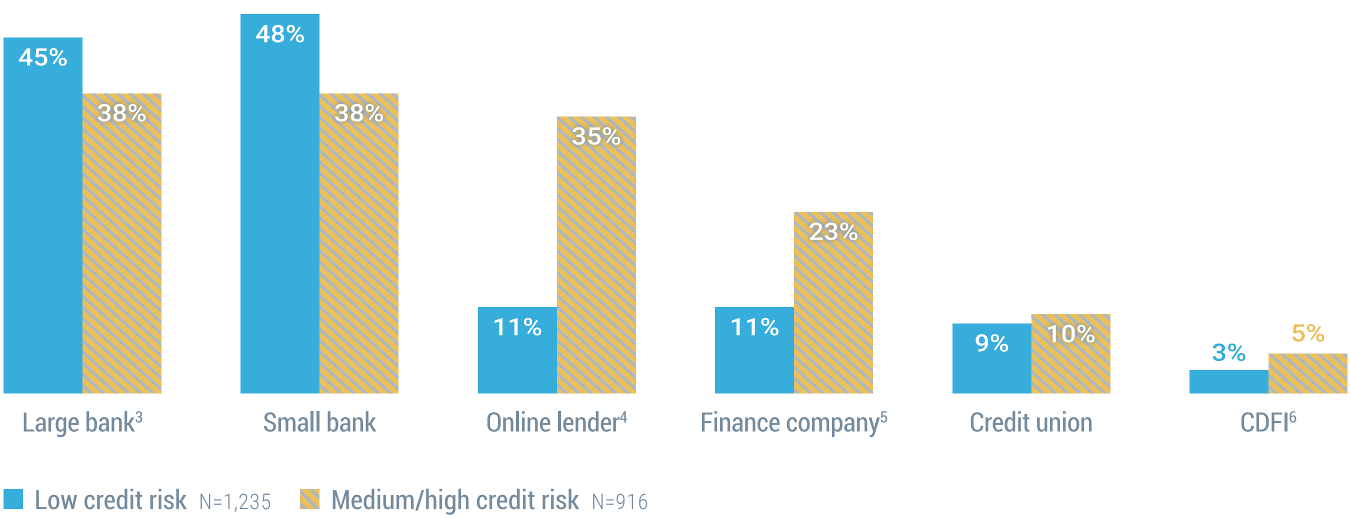
## Loan/Line of Credit/Cash Advance Sources

### Loan, line of credit, and cash advance applicants were more likely to apply to small banks and less likely to apply to online lenders, compared to the 2019 survey.

**CREDIT SOURCES APPLIED TO,** *2019 Survey and 2020 Survey*[1,2] (% of loan, line of credit, and cash advance applicants)




**CREDIT SOURCES APPLIED TO BY CREDIT RISK,** *2020 Survey*[1,2,7] (% of loan, line of credit, and cash advance applicants)

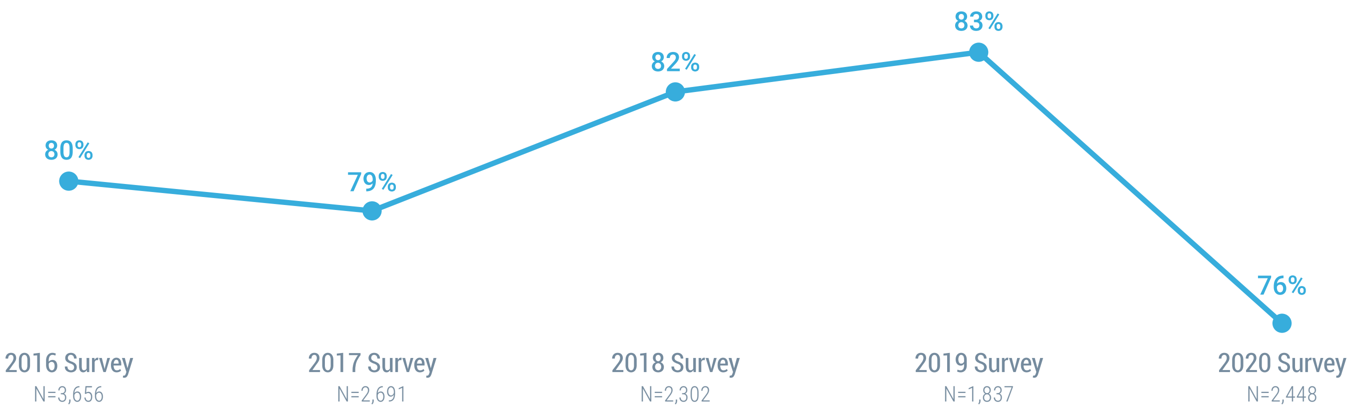



1 *Respondents could select multiple options.*
2 *Excludes emergency funding applications.*
3 *Respondents were provided a list of large banks (those with at least $10B in total deposits) operating in their state.*
4 *"Online lenders," also called fintech lenders, are nonbanks that lend online. Examples include: Lending Club, OnDeck, CAN Capital, Paypal Working Capital, Kabbage, etc.*
5 *"Finance company" includes nonbank lenders such as mortgage companies, equipment dealers, insurance companies, auto finance companies, etc.*
6 *Community development financial institutions (CDFIs) are financial institutions that provide credit and financial services to underserved markets and populations. CDFIs are certified by the CDFI Fund at the US Department of the Treasury.*
7 *Credit risk is determined by the self-reported business credit score or personal credit score, depending on which is used to obtain financing for their business. If the firm uses both, the higher risk rating is used. "Low credit risk" is a 80–100 business credit score or 720+ personal credit score. "Medium credit risk" is a 50–79 business credit score or a 620–719 personal credit score. "High credit risk" is a 1–49 business credit score or a <620 personal credit score.*

# FINANCING APPLICATIONS
## Loan/Line of Credit/Cash Advance Approval

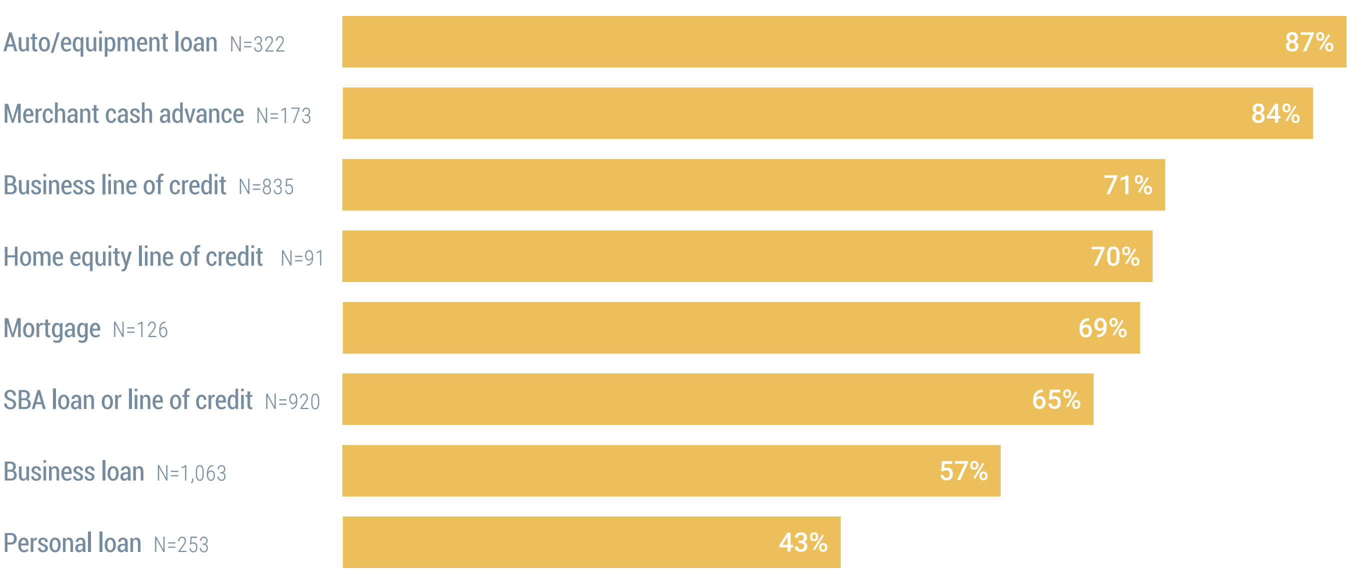
### Loan, line of credit, and cash advance applicants reported lower approval rates in 2020 than were reported in prior years.

**SHARE APPROVED: LOAN, LINE OF CREDIT, AND CASH ADVANCE APPLICANTS RECEIVING AT LEAST SOME FINANCING**[1] (% of loan, line of credit, and cash advance applicants)




### Auto and equipment loan applications were most likely to be approved.

**APPROVAL RATE BY TYPE OF LOAN/LINE OF CREDIT**[2,3] (% of loan, line of credit, and cash advance applicants)

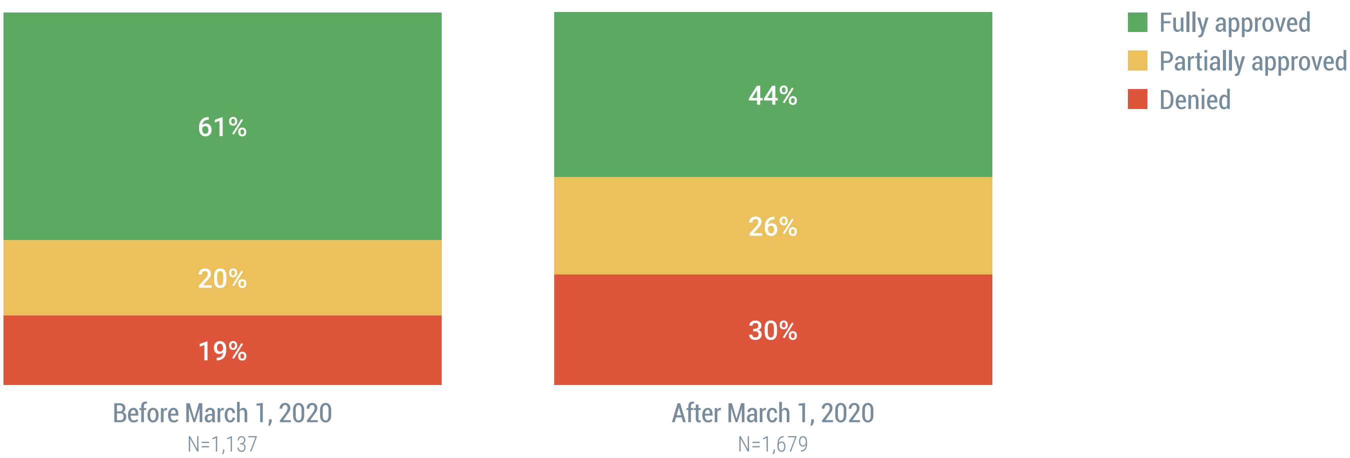



1 *Excludes emergency funding applications.*
2 *Approval rate is the share approved for at least some credit.*
3 *Response option "other" not shown in chart. See Appendix for more detail.*

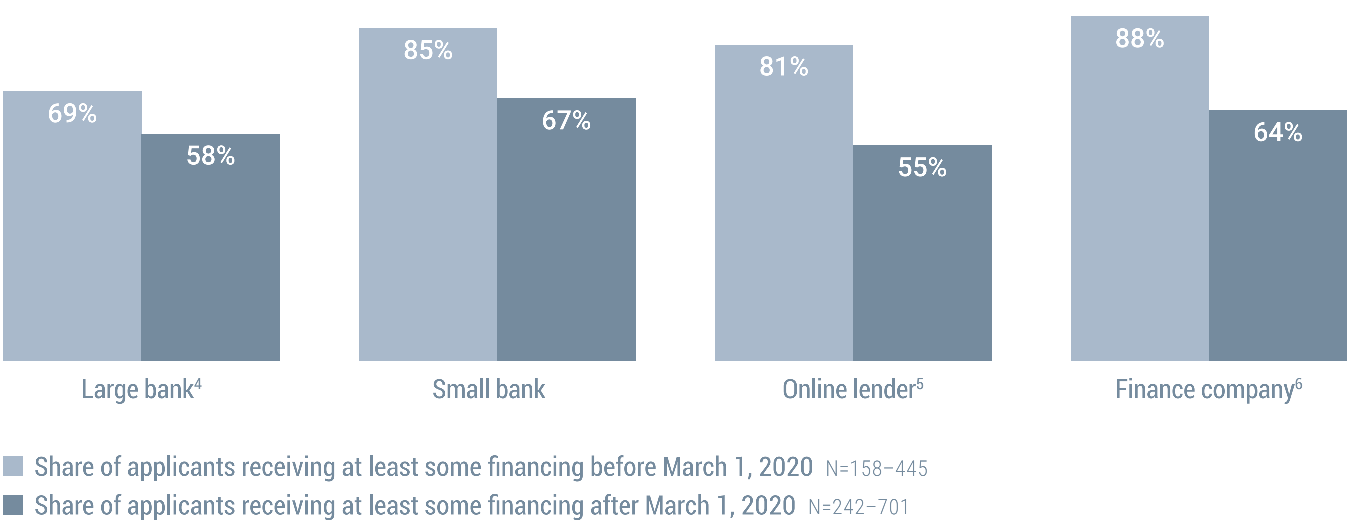
# FINANCING APPLICATIONS
## Loan/Line of Credit/Cash Advance Approval (Continued)

### Approval rates for loans, lines of credit, and merchant cash advances declined after the onset of the pandemic.

**OUTCOMES OF LOAN, LINE OF CREDIT, AND MERCHANT CASH ADVANCE APPLICATIONS,**
*Prior 12 Months*[1,2] (% of loan, line of credit, and cash advance applicants)




**APPROVAL RATES FOR LOAN, LINE OF CREDIT, AND MERCHANT CASH ADVANCE APPLICATIONS,**
*By Source*[2,3] (% of loan, line of credit, and cash advance applicants at source)

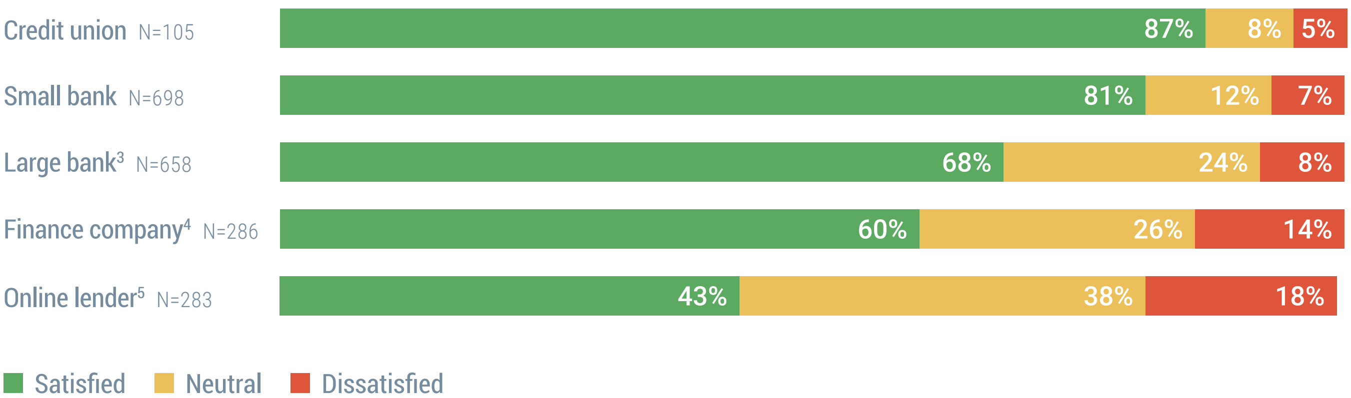



1 *Approximately the second half of 2019 through the second half of 2020.*
2 *Excludes emergency funding applications.*
3 *Approval rate is the share approved for at least some credit.*
4 *Respondents were provided a list of large banks (those with at least $10B in total deposits) operating in their state.*
5 *"Online lenders," also called fintech lenders, are nonbanks that lend online. Examples include: Lending Club, OnDeck, CAN Capital, Paypal Working Capital, Kabbage, etc.*
6 *"Finance company" includes nonbank lenders such as mortgage companies, equipment dealers, insurance companies, auto finance companies, etc.*

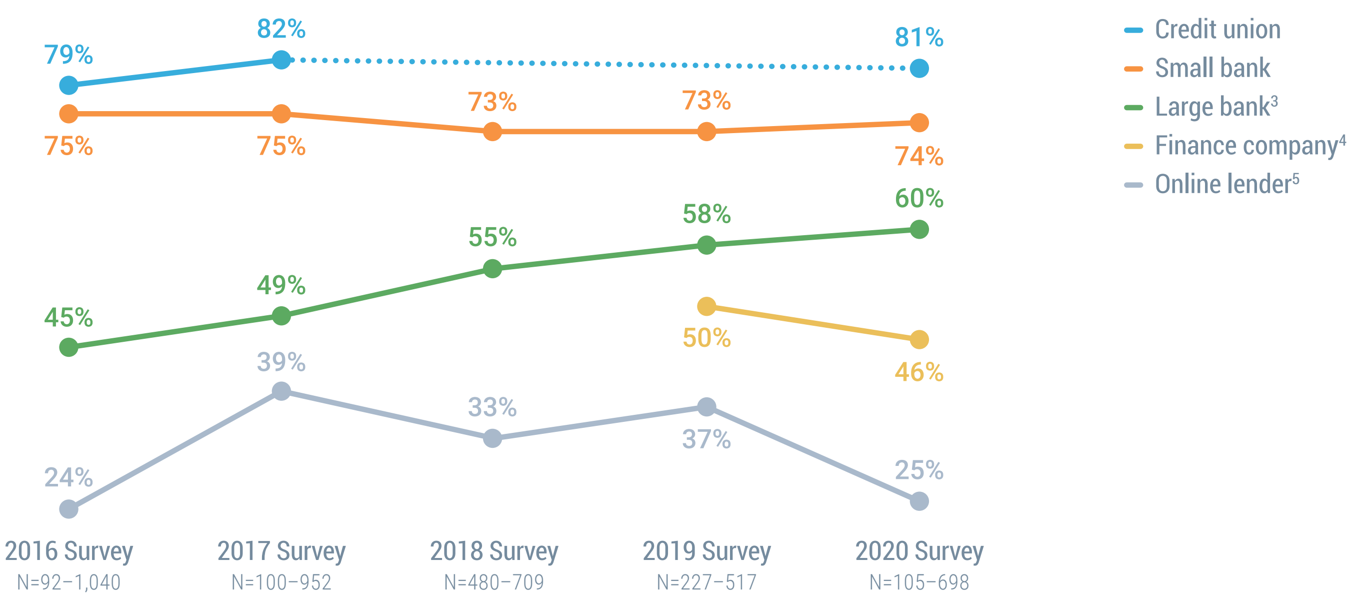
# FINANCING APPLICATIONS
## Lender Satisfaction

### Applicants were most satisfied with credit unions and small banks.

**LENDER SATISFACTION**[1,2] (% of loan, line of credit, and cash advance applicants approved for at least some financing at source)




**NET SATISFACTION OVER TIME**[2,6,7] (% of loan, line of credit, and cash advance applicants approved for at least some financing at source)




1 *Percentages may not sum to 100 due to rounding.*
2 *Excludes emergency funding applications.*
3 *Respondents were provided a list of large banks (those with at least $10B in total deposits) operating in their state.*
4 *"Finance company" includes nonbank lenders such as mortgage companies, equipment dealers, insurance companies, auto finance companies, etc.*
5 *"Online lenders," also called fintech lenders, are nonbanks that lend online. Examples include: Lending Club, OnDeck, CAN Capital, Paypal Working Capital, Kabbage, etc.*
6 *Net satisfaction is the share of firms satisfied minus the share of firms dissatisfied.*
7 *Satisfaction for credit unions not included for 2018 and 2019 surveys due to insufficient sample size (denoted by dashed line). Finance company satisfaction data for years prior to 2019 are not available because it was not included as a discrete answer choice. CDFI not included due to insufficient sample size.*

# DEMOGRAPHICS

## SNAPSHOT VIEW OF US SMALL EMPLOYER FIRMS[1,2]

| CENSUS DIVISION[3] | |
|---|---|
| South Atlantic | 20% |
| Pacific | 17% |
| East North Central | 14% |
| Middle Atlantic | 14% |
| West South Central | 11% |
| Mountain | 8% |
| West North Central | 7% |
| New England | 5% |
| East South Central | 5% |

| GEOGRAPHIC LOCATION[4] | |
|---|---|
| Urban | 84% |
| Rural | 16% |

| CREDIT RISK[3] | |
|---|---|
| Low credit risk | 70% |
| Medium credit risk | 25% |
| High credit risk | 6% |

| FIRM AGE[3] | |
|---|---|
| 0–2 years | 19% |
| 3–5 years | 13% |
| 6–10 years | 15% |
| 11–15 years | 13% |
| 16–20 years | 9% |
| 21+ years | 30% |

| NUMBER OF EMPLOYEES | |
|---|---|
| 1–4 | 55% |
| 5–9 | 18% |
| 10–19 | 13% |
| 20–49 | 9% |
| 50–499 | 5% |
| *Share using contractors* | 43% |

| RACE/ETHNICITY | |
|---|---|
| Non-minority | 82% |
| Minority | 18% |

| REVENUE SIZE OF FIRM | |
|---|---|
| ≤$100K | 15% |
| $100K–$1M | 50% |
| $1M–10M | 30% |
| >$10M | 5% |

| GENDER OF OWNER(S)[3] | |
|---|---|
| Men-owned | 64% |
| Women-owned | 21% |
| Equally owned | 16% |

| AGE OF FIRM'S PRIMARY OWNER | |
|---|---|
| Under 36 | 4% |
| 36–45 | 16% |
| 46–55 | 27% |
| 56–65 | 33% |
| Over 65 | 20% |

| INDUSTRY[5] | |
|---|---|
| Professional services and real estate | 20% |
| Non-manufacturing goods production and associated services | 18% |
| Business support and consumer services | 15% |
| Retail | 13% |
| Healthcare and education | 13% |
| Leisure and hospitality | 11% |
| Finance and insurance | 6% |
| Manufacturing | 4% |

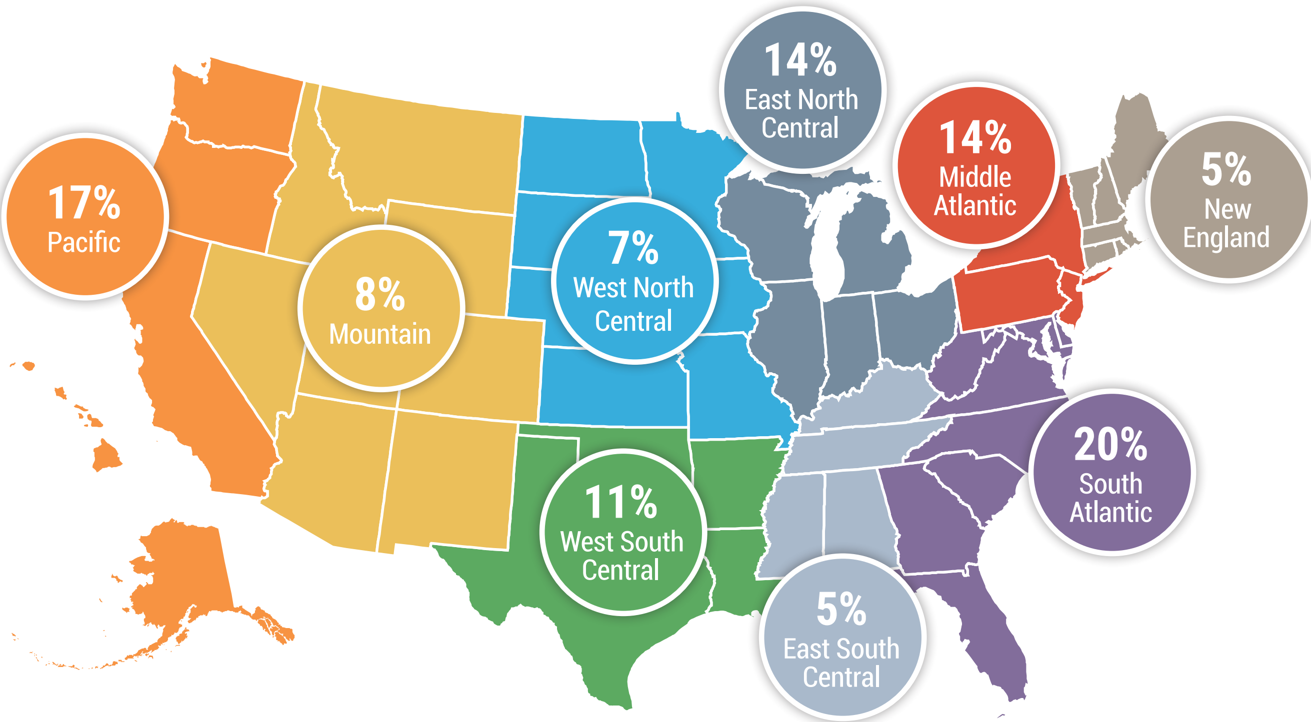
1 *SBCS responses throughout the report are weighted using Census data to represent the US small employer firm population on the following dimensions: firm age, number of employees, industry, geography, race/ethnicity of owner, and gender of owner. For details on weighting, see Methodology.*
2 *Employer firms are those that reported having at least one full- or part-time employee and do not include self-employed or firms where the owner is the only employee.*
3 *Percentages may not sum to 100 due to rounding.*
4 *Urban and rural definitions come from Centers for Medicare & Medicaid Services. See Appendix for more detail.*
5 *Firm industry is classified based on the description of what the business does, as provided by the survey participant. See Appendix for definitions of each industry.*

# DEMOGRAPHICS
(Continued)

## The following charts provide an overview of the survey respondents.[1]

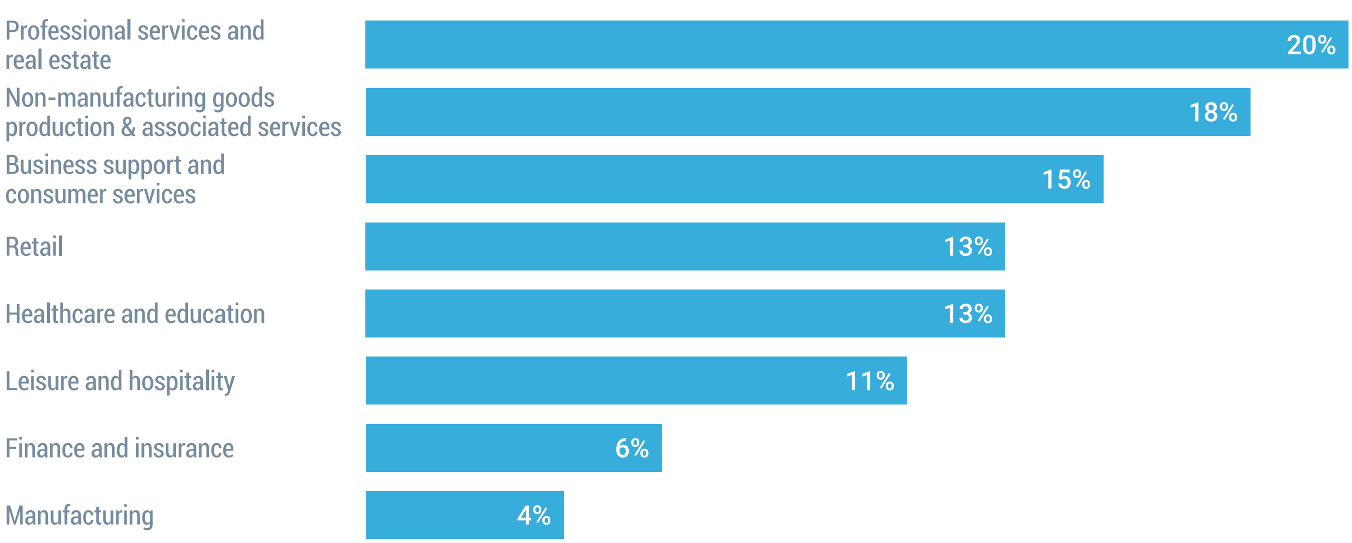
**CENSUS DIVISION**[1,2] (% of employer firms)

N=9,693




**INDUSTRY**[1] (% of employer firms)

N=9,693

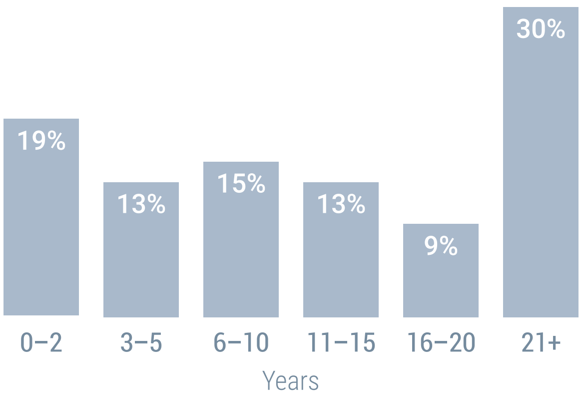



1 *SBCS responses throughout the report are weighted using Census data to represent the US small employer firm population on the following dimensions: firm age, number of employees, industry, geography, race/ethnicity of owner, and gender of owner. For details on weighting, see Methodology.*

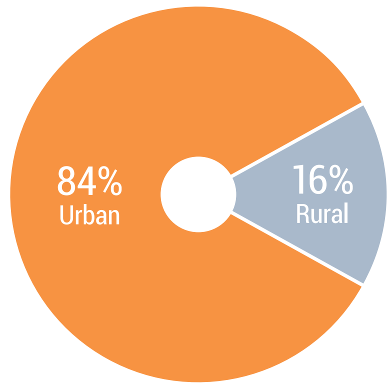
2 *Percentages may not sum to 100 due to rounding.*

# DEMOGRAPHICS
(Continued)

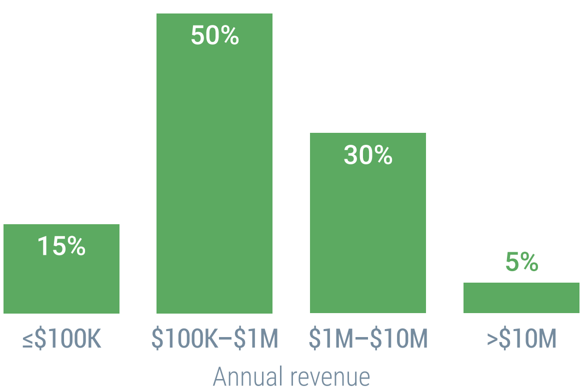
**AGE OF FIRM**[1,2] N=9,693
(% of employer firms)



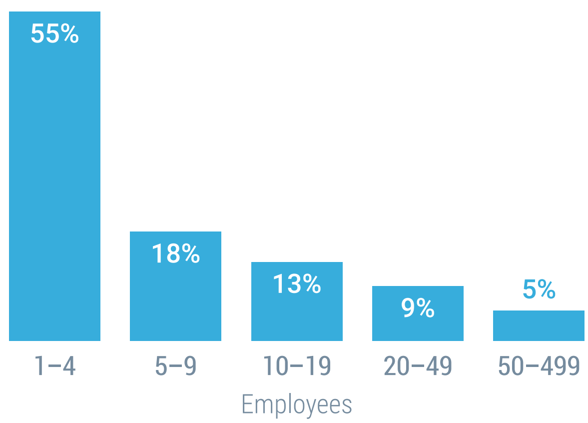

**GEOGRAPHIC LOCATION**[1,3] N=9,693
(% of employer firms)




**REVENUE SIZE OF FIRM**[4] N=9,440
(% of employer firms)




**NUMBER OF EMPLOYEES**[1] N=9,693
(% of employer firms)




**43%** of small employer firms use **contract workers.**

1 *SBCS responses throughout the report are weighted using Census data to represent the US small employer firm population on the following dimensions: firm age, number of employees, industry, geography, race/ethnicity of owner, and gender of owner. For details on weighting, see Methodology.*
2 *Percentages may not sum to 100 due to rounding.*
3 *Urban and rural definitions come from Centers for Medicare & Medicaid Services. See Appendix for more detail.*
4 *Categories have been simplified for readability. Actual categories are: ≤$25K, $25,001–$50K, $50,001–$100K, $100,001–$500K, $500,001–$1M, $1,000,001–$5M, $5,000,001–$10M, >$10M.*

# DEMOGRAPHICS
(Continued)

### CREDIT RISK OF FIRM[1,2]

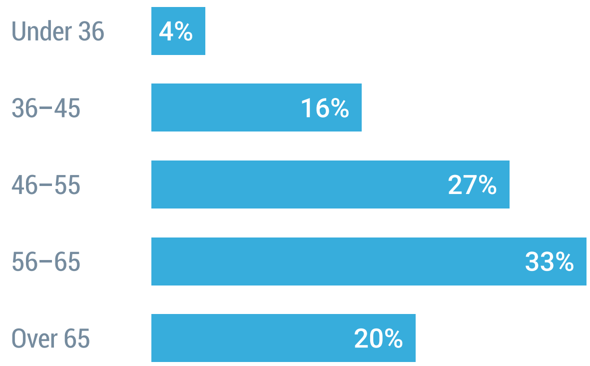
N=7,072

(% of employer firms)


### AGE OF FIRM'S PRIMARY OWNER

N=9,139

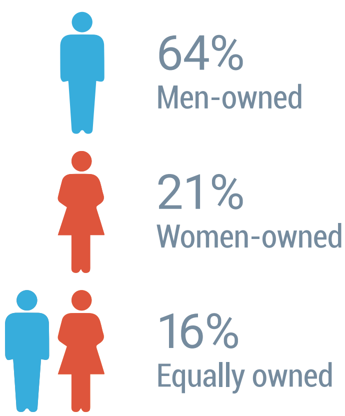
(% of employer firms)




### GENDER OF OWNER(S)[2,3]

N=9,693

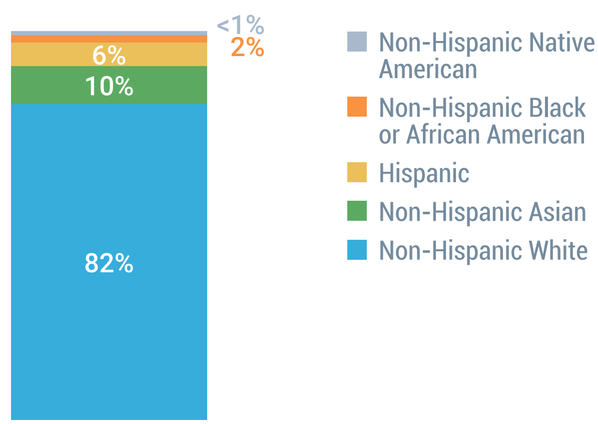
(% of employer firms)




### RACE/ETHNICITY OF OWNER(S)[2,3]

N=9,693

(% of employer firms)




**20%** of employer firms are at least partially owned by an **immigrant**.

**15%** of employer firms are at least partially owned by a **veteran**.

**5%** of employer firms are at least partially owned by a member of the **LGBTQ community**.

1 *Credit risk is determined by the self-reported business credit score or personal credit score, depending on which is used to obtain financing for their business. If the firm uses both, the higher risk rating is used. "Low credit risk" is a 80–100 business credit score or 720+ personal credit score. "Medium credit risk" is a 50–79 business credit score or a 620–719 personal credit score. "High credit risk" is a 1–49 business credit score or a <620 personal credit score.*

2 *Percentages may not sum to 100 due to rounding.*

3 *SBCS responses throughout the report are weighted using Census data to represent the US small employer firm population on the following dimensions: firm age, number of employees, industry, geography, race/ethnicity of owner, and gender of owner. For details on weighting, see Methodology.*

# METHODOLOGY

## DATA COLLECTION

The SBCS uses a convenience sample of establishments. Businesses are contacted by email through a diverse set of organizations that serve the small business community.[1] Prior SBCS participants and small businesses on publicly available email lists are also contacted directly by the Federal Reserve Banks.[2] The survey instrument is an online questionnaire that typically takes 6 to 12 minutes to complete, depending upon the intensity of a firm's search for financing. The questionnaire uses question branching and flows based upon responses to survey questions. For example, financing applicants receive a different line of questioning than nonapplicants. Therefore, the number of observations for each question varies by how many firms receive and complete a particular question.

## WEIGHTING

A sample for the SBCS is not selected randomly; thus, the SBCS may be subject to biases not present with surveys that do sample firms randomly. For example, there are likely small employer firms not on our contact lists, a situation which could lead to noncoverage bias. To control for potential biases, the sample data are weighted so the weighted distribution of firms in the SBCS matches the distribution of the small firm (1 to 499 employees) population in the United States by number of employees, age, industry, geographic location (census division and urban or rural location), gender of owner(s), and race or ethnicity of owner(s).

For the Employer Firms Report and analysis,[3] we first limit the sample in each year to only employer firms. We then post-stratify respondents by their firm characteristics. Using a statistical technique known as "raking," we compare the share of businesses in each category of each stratum (for example, within the industry stratum,[4] the share of firms in the sample that are manufacturers) to the share of small businesses in the nation in that category. As a result, underrepresented firms are up weighted and overrepresented businesses are down weighted. We iterate this process several times for each stratum to derive a sample weight for each respondent. This weighting methodology was developed in collaboration with the National Opinion Research Center (NORC) at the University of Chicago. The data used to construct the weights originate from the US Census Bureau.[5]

We are unable to obtain exact estimates of the combined racial and ethnic ownership of small employer firms for each state or at the national level. To derive these figures, we assume that the distribution of small employer firm owners' combined race and ethnicity is the same as that for all firms in a given state. Given that small employer firms represent 99.7% of businesses with paid employees,[6] we expect these assumptions align relatively closely with the true population.

In addition to the US weight, state- and Federal Reserve District-specific weights are created. While the same weighting methodology is employed, the variables used differ slightly from those used to create the US weight.[7] State weights are generated for states that have at least 100 observations and that remain below a volatility threshold. Estimates for Federal Reserve Districts are calculated based on all small employer firms in any state that is at least partially within a District's boundary. Federal Reserve District-level weights are created for each District using the weighting process described previously, but they are based on observations in the relevant states.

## RACE/ETHNICITY AND GENDER IMPUTATION

Nine percent of employer firm respondents did not provide complete information on the gender, race, and/or the ethnicity of their business's owner(s). This information is needed to correct for differences between the sample and the population data. To avoid losing these observations, a series of statistical models is used to impute the missing data. Generally, when the models are able to predict with an accuracy of around 80 percent in out-of-sample tests,[8] the predicted

1 *For more information on partnerships, please visit www.fedsmallbusiness.org/partnership.*

2 *System for Award Management (SAM) Entity Management Extracts Public Data Package; Small Business Administration (SBA) Dynamic Small Business Search (DSBS); state-maintained lists of certified disadvantaged business enterprises (DBEs); state and local government Procurement Vendor Lists, including minority- and women-owned business enterprises (MWBEs); state and local government-maintained lists of small or disadvantaged small businesses; and a list of veteran-owned small businesses maintained by the Department of Veterans Affairs.*

3 *Weights for nonemployer firms are computed separately, and a report on nonemployer firms is also generally issued annually.*

4 *Employee size strata are 1–4 employees, 5–9 employees, 10–19 employees, 20–49 employees, and 50–499 employees. Age strata are 0–2 years, 3–5 years, 6–10 years, 11–15 years, 16–20 years, and 21+ years. Industry strata are non-manufacturing goods production and associated services, manufacturing, retail, leisure and hospitality, finance and insurance, healthcare and education, professional services and real estate, and business support and consumer services. Race/ethnicity strata are non-Hispanic White, non-Hispanic Black or African American, non-Hispanic Asian, non-Hispanic Native American, and Hispanic. Gender strata are men-owned, equally owned, and women-owned. See Appendix for industry definitions, urban and rural definitions, and census divisions.*

5 *State-level data on firm age come from the 2018 Business Dynamics Statistics. In contrast to prior years, we here use the firm age for all firms, not just that for firms with fewer than 500 employees, for each state. Unfortunately, data on firm age and size have not been available at the state level since the 2014 Business Dynamics Statistics. At the national level, we find only very slight deviations between firm ages for all firms, as opposed to those for firms with fewer than 500 employees. We derive industry, employee size, and geographic location data from the 2018 County Business Patterns. Data from the Center for Medicare and Medicaid Services are used to classify a business's zip code as urban or rural. Data on the race, ethnicity, and gender of business owners are derived from the 2018 Annual Business Survey.*

6 *US Census Bureau, County Business Patterns, 2017.*

7 *Both use five-category age strata: 0–5 years, 6–10 years, 11–15 years, 16–20 years, and 21+ years; and both use two-category industry strata: (1) goods, retail, and finance, which consists of non-manufacturing goods production and associated services, manufacturing, retail, and finance and insurance; (2) services, except finance, which consists of leisure and hospitality, healthcare and education, professional services and real estate, and business support and consumer services.*

8 *Out-of-sample tests are used to develop thresholds for imputing the missing information. To test each model's performance, half of the sample of non-missing data is randomly assigned as the test group while the other half is used to develop coefficients for the model. The actual data from the test group are then compared with what the model predicts for the test group. On average, predicted probabilities that are associated with an accuracy of around 80 percent are used, although this varies slightly, depending on the number of observations that are being imputed.*

# METHODOLOGY
(Continued)

values from the models are used for the missing data. When the model outcomes are less certain, those data are not imputed, and the responses are dropped. After data are imputed, descriptive statistics of key survey questions with and without imputed data are compared to ensure stability of estimates. In the final sample, 8 percent of employer firm observations have imputed values for the gender, race, or ethnicity of a firm's ownership.

To impute owners' race and ethnicity, a series of logistic regression models is used that incorporate a variety of firm characteristics, as well as demographic information on the business headquarters' zip code. First, a logistic regression model is used to predict if business owners are members of a minority group. Next, for firms classified as minority-owned,[9] a logistic probability model is used to predict whether the majority of a business's owners are of Hispanic ethnicity. Finally, the race for the majority of a business's owners is imputed separately for Hispanic and non-Hispanic firms using a multinomial logistic probability model.

A similar process is used to impute the gender of a business's owner(s). First, a logistic model is used to predict if a business is primarily owned by men. Then, for firms not classified as men-owned, another model is used to predict if a business is owned by women or is equally owned.

### COMPARISONS TO PAST REPORTS

Because previous SBCS reports have varied in terms of the population scope, geographic coverage, and weighting methodology, some survey reports are not directly comparable across time. The employer report using 2015 survey data covered 26 states and is weighted by firm age, number of employees, and industry. The employer reports using 2016 and 2017 data included respondents from all 50 states and the District of Columbia. These data are weighted by firm age, number of employees, industry, and geographic location (both census division and urban or rural location). The 2017 survey weight also included gender, race, and ethnicity of the business owner(s), as described previously.

In addition, the categories used within each weighting characteristic have also differed across survey years. For instance, there were three employee size categories in the 2015 survey and five employee size categories in the 2016 and 2017 surveys. Finally, some survey questions have changed over time, limiting question comparisons.

Due to changes in the weighting methodology of over-time data, the time series data in this report supersede and are not comparable with the time series data (2015–2017 survey years) in the Employer Firms Report published in May 2018. Compared to those previous reports, the updated weighting scheme in this and last year's reports makes use of a greater number of variables (it includes the race, ethnicity, and gender of a business's ownership), and is thus more representative of the US small employer firm population. Data for the 2015 survey year are not displayed in this report, as they lack information on the aforementioned variables. The data in this report are, however, comparable to the report containing 2018 survey data that was published in 2019, and 2019 survey data that were published in 2020. For more information on the methodological changes to the "time-consistent" weights, please refer to the methodology section of the 2019 Report on Employer Firms.

In addition, many survey questions are not comparable over time due to changes in the response options. For example, the option "Finance company" was added as an application source in the 2019 survey; thus, the application rates by source displayed in the 2021 report are not directly comparable to reports prior to the 2019 survey.

### CREDIBILITY INTERVALS AND STATISTICAL TESTS

The analysis in this report is aided by the use of credibility intervals. Where there are large differences in estimates between types of businesses or survey years, we perform additional checks on the data to determine whether such differences are statistically significant. The combination of the results of these tests and several logistic regression models helped to guide our analysis and decide on the variables to include in the report. In order to determine whether differences are statistically significant, we develop credibility intervals using a balanced half-sample approach.[10] Because the SBCS does not come from a probability-based sample, the credibility intervals we develop should be interpreted as model-based measures of deviation from the true national population values.[11] We list 95 percent credibility intervals for key statistics in the following table. The intervals shown apply to all employer firms in the survey. More granular results with smaller observation counts will generally have larger credibility intervals.

**Credibility Intervals for Key Statistics in the 2021 Report on Employer Firms**

| | Percent | Credibility Interval |
|---|---|---|
| Share that applied | 37.3% | +/- 1.4% |
| Share with outstanding debt | 79.5% | +/- 1.1% |
| Loan/line of credit and cash advance approval rate | 75.6% | +/- 3.4% |
| Share of firms with financial challenges in prior 12 months | 80.4% | +/- 1.3% |
| Share of firms in fair or poor condition | 57.8% | +/- 1.4% |

9 *For some firms that were originally missing data on the race/ethnicity of their ownership, this information was gathered from public databases or past SBCSs.*
10 *Wolter (2007), Survey Weighting and the Calculating of Sampling Variance.*
11 *AAPOR (2013), Task Force on Non-probability Sampling.*